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## Article

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# Innovation and marketing performance of SME in an emerging economy: the moderating effect of transformational leadership

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## Abstract

This paper aims to draw on the resource-based view (RBV) to examine the effect of transformational leadership (TL) on innovation and marketing performance in SME service firms. The paper further investigates the extent to which transformational leadership influences the effect of innovation on marketing performance and how such an effect could be managed for SME development. Cross-sectional survey data were collected from 437 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 (PLS-SEM) with bootstrap procedures was adopted to test the hypotheses. The findings suggest that innovation has a positive effect on marketing performance; transformational leadership has a moderating effect on the relationship between innovation and marketing performance. The study's results show that these effects are robust in the firm's marketplace. The current study examined the TL effect based on each rating. Therefore, it would be useful to study the effects of TL and other variables that can be manipulated by team level dynamics (or groups) such as trust in the team, team creativity, and team innovative performance in the future. For SME to be highly competitive in emerging economies, this study deepens the effect of innovation on firm performance and as such managers/owners should consider the vital role of transformational leadership as a predictor of the relationship between innovation types and marketing performance. This current study contributes to the literature by assessing a valid model that describes the relationships between transformational leadership on innovation and marketing performance concurrently. This is the first empirical study to focus on SME marketing performance concerning types of innovation and marketing performance in an emerging economy with a moderated effect of transformational leadership.

**Keywords:** Innovation, Transformational leadership, Marketing performance, PLS-SEM, Moderation analysis

## Introduction

In both developed and emerging economies of the world, policymakers at the local, regional, and government levels have been thinking about the critical role of

SMEs in generating employment and wealth and developing innovation (Nyoni and Bonga, 2018). Despite the increasing growth of small- and medium-scale enterprises (SMEs), the high levels of unemployment and low standard of living have consequently imposed immense economic pressures on most African and Latin American economies (Leigh and Blakely, 2016). The Group (2014) released a report titled “Many firms, but little innovation” in an attempt to explain the paradoxical situation in these countries. The vital role of small and medium enterprises (SMEs) in developing countries, through which their growth objectives can be achieved, has long been recognized (Burns, 2016). Small enterprises have been a significant area of concern to many policymakers, in an attempt to stimulate the rate of growth in low-income countries (Daniel and Fisseha, 1992). Firstly, small-scale enterprises are potential sources of employment and income in many developing countries. According to Burns (2016), small-scale enterprises employ 22% of the adult population in developing countries. They further perform useful roles in ensuring income stability, growth, and employment (Abor and Biekpe, 2006). Small-scale, labor-intensive enterprises are more likely to succeed in smaller urban centers and rural areas, where they can contribute to the greater distribution of economic activity in an area and can also help to reduce the flow of migration to big cities.

In Ghana, the low level of innovation according to some researchers has been as a result of the plethora of issues that constrain SMEs’ effort to innovate (Asiedu, 2016). Also, Odoom et al. (2017) indicate that SMEs generally do not have enough resources to compete with foreign companies. The unique advantage of most small- and medium-sized enterprises is that they can be easily created since they are required in terms of capital and technology; management and even utilities are not as required as in large firms (Sulemana, 2014). As a result of the above characteristics, the small business sector is the most dominant form of business, accounting for 92% of companies in Ghana (Abor and Quartey, 2010). The structure of the economy broadly remains unchanged with the continued dominance of the service sector; thus, service sector accounts for 4.7% of the sector growth of the economy, followed by the industrial sector and agriculture by 17.7% and 4.3%, respectively (reported in the Financial Statement presented by the Minister of Finance on November 2017 on Ghana Budget for 2018).

SMEs play a significant role in economic growth, just as they are vital for generating employment in many other developing countries (Porter and Kramer, 2011). Therefore, the future of the Ghanaian economy depends in no small extent on the success of SME as in many other developing countries. The Government of Ghana has established an institutional fund to develop and empower individuals and communities through entrepreneurship (Philomina et al., 2012). Small- and medium-sized enterprises (SMEs) are an essential sector of the economy, with the capacity to absorb the bulk of unemployment if they produce both domestic and export markets, contributing to sustainable development. The SME sector provides employment opportunities for a large sector of the labor market (Sulemana, 2014). They also support a more significant part of Ghana’s population and contribute significantly to Ghana’s gross domestic product. This support is in the form of income as workers in the SME sector earn their living through SMEs. The SME

sector, therefore, plays an essential role in economic growth and improving the quality of life of the people of Ghana (Abor and Quartey, 2010).

Nonetheless, Ghana has experienced growth and development in its service sectors through reforms, coherence in the implementation of political and economic policies, and the entry of foreign companies (Group, 2014). Developments in the country have pushed service sector companies to look for positions to attract customers and improve their performance and have used various innovations to make progress. Such an emerging market offers a new theoretical perspective and highlights new management perspectives for companies in their strategic choices (Sheth, 2011). Regardless of SME contributions to economic development and social interventions, the sector faces many challenges, such as finance, resource management, strategic planning, and the lack of appropriate platforms to enable innovation in products, process, organization, and marketing capabilities. SME managers of many of these firms have little or no technical or managerial experience. Most SME is generally unstable and does not survive after 3 years. The survival of SME is subject to many constraints, particularly in Africa. These constraints include weak management capacity, lack of market information, inadequate resources such as human and financial resources, low levels of innovative capabilities, and inability to improve innovation and performance (Obeng et al., 2014).

Besides, every business survival leads to maximizing profit and marketing-oriented approach as a way to meet these expectations as businesses have had the challenges of marketing (Dzisi and Ofosu, 2014; Van Scheers, 2011). SME leaders need to understand how important it is to understand the definition of marketing in business performance. Lam and Harker (2015) stated that the concept of marketing proliferated in the twentieth century. Whereas, Katona (2014) describes that some SME leaders did not recognize the importance of marketing. Thus, some business executives have not seen marketing as a clear concept or misunderstood marketing as only advertising (Katona, 2014). However, 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/leaders used entrepreneurial procedures and untapped marketing techniques to contribute to the achievements of new projects (Jayawarna et al., 2014). Thus, academic and commercial researchers can add marketing knowledge by studying performance marketing.

Hitherto, there have been many ideas by scholars to evaluate the significance of transformational leadership in small and medium enterprises (Northouse, 2018). For example, Hayat and Riaz (2011) claimed that transformational leadership is firmly related to the SMEs' business approach and the environment in which entrepreneurs work. Matzler et al. (2008) emphasize that the transformational leadership style is closely related to entrepreneurship and SMEs. They realized that because SMEs are small, it is the entrepreneur who guides vision and direction, which is equivalent to the ideal impact of the transformational leadership. Thus, be able to communicate the expectations of each employee related to the inspirational and individual aspects of transformational driving characteristics (Hayat and Riaz, 2011). Second, they argued that because of limited resources, SMEs were explicitly addressing the self-motivation of staff because SMEs were unable to use substantial

external rewards in transactions with the staff because there was not enough commercial space. Finally, they emphasized that SMEs operate in a dynamic environment and a global economy characterized by unpredictable opportunities and threats; transformational leadership may, therefore, be appropriate for SMEs to adapt to this type of environment.

Consequently, Matzler et al. (2008), observed that the less complicated and flexibility of SMEs provides an enabling environment for transformational leaders to play a critical role in enhancing organizational performance. For instance, Visser et al. (2013) suggested in their study on transformational leadership in South Africa involving 535 owners and managers of small and medium enterprises. The results revealed that there is a moderate degree of positive relationship between transformational leadership and entrepreneurship. This indicates that South African SME owners and managers have the characteristics of both entrepreneurs and transformational leaders. These studies have agreed that the theory of transformational leadership applies to the business environment of small and medium enterprises. Despite the size of the firm, leaders who effectively employed the transformational leadership style tend to achieve positive results for their organizations.

To be competitive in the global economy, SMEs will have to undergo radical changes such as becoming more entrepreneurial and having effective leadership (Hashim, 2012). If SMEs are to grow and increase their contribution to the country's economy as planned, their leaders will have to be able to identify the need for rejuvenation, to improve their sense of direction, to ready to create necessary changes in their organization, and more importantly to improve organizational performance (Hashim, 2012). Although the literature is of great interest to researchers and practitioners in the areas of leadership and performance, the arguments tend to focus on whether or not there is a connection between innovation, transformational leadership, and marketing performance. Despite the relationship identified between innovation and organizational performance (Calantone et al., 1995; Han et al., 1998) and between transformational leadership and organizational performance (West et al., 2003; Han et al., 1998), very few studies have been conducted to examine the relationship between these variables simultaneously (Yang, 2009; Todorovic and Schlosser, 2007).

This study follows the suggestions of several authors for future research on leadership, innovation, and marketing performance, thus incorporating the theoretical model of these variables concurrently to validate the study empirically. As shown, the study aims to explore the direct relationship between innovation types and marketing performance, also to examine the integrative effect of transformational leadership on innovation types and marketing performance of SME. The rest of the article is structured as follows: in the first part, an introduction of the study and review of the literature, and in the next part, the literature and hypotheses are formulated—the methodology of a research study detailed the analysis and the respective results. In the next part, discussions including theoretical and managerial implications are presented. Finally, the limitation of the study, future research, and conclusion are presented.

### **Literature review**

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

(NBSSI) 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 ten employees, while medium- and large-sized enterprises have more than 10. Although, in its national accounts, the GSS considered micro small business (MSB) as companies with up to nine employees (Abor and Quartey, 2010). 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 et al., 1993). This study adopts the ministry of trade and industry definition. Therefore, we define SME as firms with an employee strength not exceeding 99. SMEs in Ghana are mostly located in the informal sector, such as the Ghana Private Road Transport Union (GPRTU), Ghana National Chemical Sellers Association, Ghana National Tailors and Dressmakers Association, National Drinking Bar Operators Association, Chop Barkeepers and Cooked Food Sellers Association, Hairdressers Association of Ghana, Susu Collectors Association, and Blacksmiths and Metal Workers Union, among many (Boateng, 26). It works as sources of not only labor but also income (Abor and Biekpe, 2005); hence, this study is focusing on the SME service sector.

### **Innovation and marketing performance of SMEs**

Currently, innovation is considered one of the most critical aspects of business studies. Oslo Manual OECD (2005) categorized innovation into four types: product, process, marketing, and organizational innovation. Product innovation involves an increased customer benefits for functional or other improvements in the product or service (Zaefarian et al., 2017). Besides, process innovation refers to doing business in a new and innovative way (Akgün et al., 2014). Organizational innovation is defined as an introduction to new business practices, workplace regulation, decision-making, and new ways of handling external relations (Polder et al., 2010). Hassan et al. (2013) describe that innovation in marketing is implementing a new marketing method involving significant changes in design, placement, packaging, product promotion, and pricing strategy. Thus, the study will adopt OECD definition for SMEs.

Studies show that the company's innovative performance (Hoang Nam, 2014) has a positive and significant influence on the growth of SMEs. Thus, innovation culture has been pronounced as a pre-condition for improving organizational, marketing, and managerial entrepreneurship in a competitive market (Aksoy, 2017). As a result, businesses need to adopt more innovative marketing activities to use appropriate strategies. Innovation has a significant positive effect on the performance of micro and small family businesses in Ghana (Acquaah and Agyapong, 2015). In Ghana, innovation across SMEs is required not only for the survival of the organization but also to improve business performance. Anning-Dorson (2016) mentioned that innovation is required to make a company different, thus achieving

a competitive advantage. The innovative capability of companies and individuals in the company have a definite causal relationship with SME performance (Agyapong et al., 2017). The innovative capability has a direct and positive impact on a company's performance results (Hsieh and Lin, 2010).

Despite, some SME leaders have underestimated the need for marketing or claimed they had not received funding or scholars in their efforts (Katona, 2014). On the other hand, 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). Consequently, some managers used entrepreneurial procedures and untapped marketing techniques to contribute to the achievements of new projects (Jayawarna et al., 2014). Thus, business leaders must recognize marketing performance in order to determine their contribution to organizational performance. By comparison, small business leaders see the marketing concept from a specific perspective (Katona, 2014). Thus, this study believed that the level of innovativeness in an organization is an essential determinant of marketing performance. Thus, the following hypotheses are proposed:

*H1:* Innovation (product, process, marketing, and organization) significantly and positively affects marketing performance.

### **Transformational leadership and marketing performance**

Transformational leadership has been one of the most critical examined topics in the last few decades since Burns (1978) popularized its concept (Ng, 2017). Transformational leadership attracts the attention of researchers because of their difference with traditional leadership methods (Judge and Piccolo, 2004; Kark et al., 2018). Therefore, the influence of leadership behavior on firm performance has gained research interest among scholars and practitioners in leadership (Parashakti et al., 2018; Kim and Brymer, 2011). West et al. (2003) argued that leadership in small organizations is a central factor affecting the competitive advantage of a company. Thus, the style of a leader has become an important focal point of creativity. Leaders who have a transformative style offer individual development, a dream of convincing reciprocal vision and accelerating creative thinking by employees, which in turn improves individual and company performance (Birasnav et al., 2013). For example, Aboshaiqah (2016), who used 227 nurses from four hospitals in Saudi Arabia, found a substantial relationship between transformational leadership and work performance. Similarly, Pourbarkhordari et al. (2016) examined the direct and indirect influence of transformational leadership on job performance using data collected from 202 employees in China and found that transformational leadership had a significant impact on job performance. Khan et al. (2014) mentioned that there is a strong relationship between transformational on the financial performance of the company. The results of the study showed that transformational leadership style has more significant weight on the financial performance of the company. Thus, examining the possible direct relationships between transformational leadership and marketing performance is important and will help in increasing the understanding of the variables. Based on previous research, the study hypothesized as follows:

H2: Transformational leadership positively influences marketing performance.

### **Transformational leadership as a moderator**

Researchers have given the perception of the effects of transformational leadership on the relationship between innovation and marketing performance little prominence. According to Bass (2000), a transformative leader is the kind of leader he promotes by creating a vision that gives meaning and motivation. The theory of transformational leadership also predicts that effective leaders can adjust their leadership behavior in a more or less transformational way to meet the dynamic demands of the situation (Hannah et al., 2008). Bass et al. (2003) suggested that transformational leadership was more effective because transformational leaders empowered employees by turning them into individuals and teams with strong commitment, focused on service, quality, profitability, and high returns. Thus, the practice and behavior of transformational leadership should have a significant impact on innovation and marketing performance. As a result, different intrinsic characteristics of each style of transformational leadership, one style can be expected to have a more significant positive impact on innovation and marketing performance.

Transformational leadership is defined as a process in which leaders are available and their employees' attention is raised (Bass, 1985). There are four factors of transformational leadership: idealized influence, inspirational motivation, intellectual stimulation, and individual consideration (Bass and Riggio, 2006). The components described below provide a basis for the perception of an individual's ability to drive in this study. *Idealized influence*: The leader with the ideal effect gives the followers a clear sense of purpose that activates a role model in ethical behavior, builds a sense of respect and identification with the leader and his particular vision, and imagines that the leader places the interests of the group on his interests. Similarly, (Judge et al., 2009) highlighted that these leaders show high ethical and moral standards, based on what inspires their followers to pursue leadership to improve the quality of their work and performance. *Inspirational motivations*: An inspirational leader speaks optimistically about the future and expresses his confidence in achieving the group's goals, enthusiastically discusses what needs to be done, and articulates a clear vision for the future to motivate and inspire those who pursue the goals. According to (Perkins, 2010), even in the absence of a leader, the inspiring motivation often results in individuals' efforts and performance beyond natural expectations, reinforcing their followers who can meet the challenges independently of their own accord. *Intellectual stimulation*: A leader with intellectual stimulation allows followers to question the status quo as well and the real ways to solve problems and encourage them to look at problems from different perspectives. Through intellectual stimulation and transformation, leaders do not attract attention to hun followers "to promote creativity and creative thinking." Therefore, followers are encouraged to look at cases or problems of new perspectives to discover different ways of doing things or finding new solutions to problems (Bass et al., 2003). *Individual consideration*: A leader with individual understandings considered and separated each member of the group as an individual

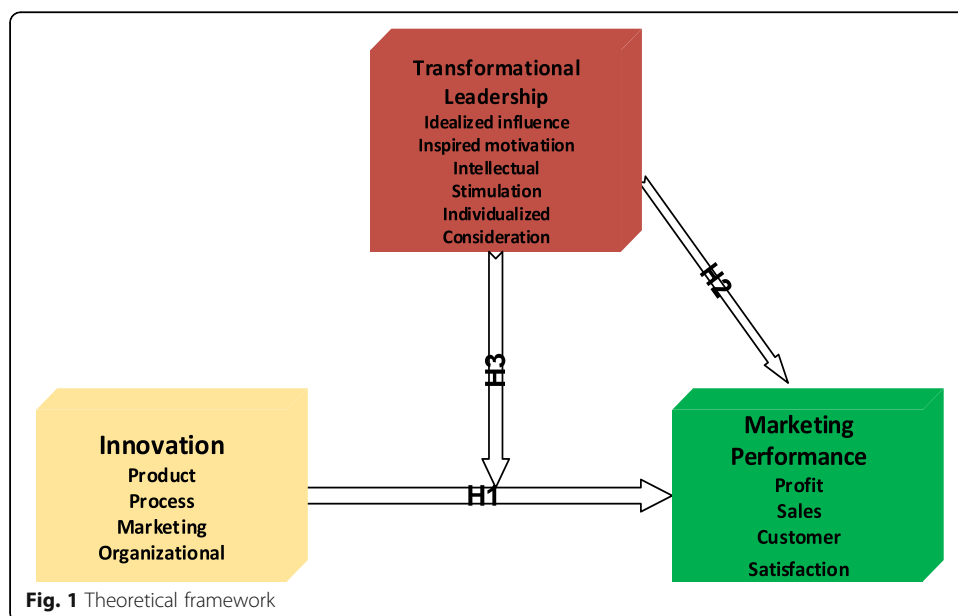


with different needs, abilities, and ambitions and continuously works to get followers to realize the full potentials (Hadden, 2003). Allison and Goethals (2013) mentioned that “one-to-one relationship” means empowering followers and improving communication among group members as well as between leaders and members of the group. Senior management is expected to provide the driving force for implementing an effective product innovation strategy. Companies with leaders with strong creative tendencies are more likely to see higher performance results than those with the latest leadership in innovation. Thus, exploring the potential moderating role of transformational leadership is very important in increasing the understanding of the relationships between innovation and marketing performance. We, therefore, hypothesize that:

*H3:* Transformational leadership positively moderates the relationship between innovation and marketing performance.

The first theoretical contribution of this study comes from a framework based on the theory of transformational leadership and resource-based view (RBV). This framework reinforces the knowledge of leadership literature to emphasize the applicability of these western concepts to a developing country such as Ghana. Also, the assessment of transformational leadership as resource capabilities from RBV can conclusively determine whether transformational leadership has a significant impact between innovation and marketing performance of SMEs in a developing economy. Therefore, this study extends the research above by clarifying the moderating role of transformation leadership (TL) in the relationship between innovation and marketing performance using structural equation modeling PLS approach.

This study seeks to examine the innovation and marketing performance of SMEs and the moderating role of transformational leadership. Figure 1 illustrates the theoretical framework of the study.



## Methodology

The study intends to examine the role of transformational leadership on innovation and marketing performance of SME and to investigate how the dimensions of transformational leadership moderate the effect of innovation and marketing performance. The study was conducted with data gathered from business owners/managers where every respondent was asked to give data on their businesses and insightful information on innovation activities, and it is relevant to marketing performance of distinct firms. The study was limited to Greater Accra (Accra) and Ashanti (Kumasi) Regions of Ghana with the highest concentration of SMEs. A convenience sample was used to select 500 business owners/managers from SME service sectors (hospitality, beauty, transportation, and banking service). This approach aligns with the previous study by Makanyeza and Dzvuke (2015) within which an individual was selected 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. 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 business owners/managers of SMEs. Consequentially, five investigative assistants were engaged and trained to help with the administering of the study questionnaires to respondents. In all, 87.4% of the total questionnaires administered were returned representing 437 respondents. All the measures of innovation, transformational leadership, and marketing performance were intertwined in sequence to scale back the problem of common method variance (CMV). Further, the participants were assured of information secrecy of the data provided. Current studies have used this method in data collection to help reduce CMV problems (Acquaah and Agyapong, 2015).

## Measurement of constructs

### Innovation/innovation types

Innovation construct as an independent variable during this investigation was classified into product innovation, process innovation, marketing innovation, and organizational innovation. This part includes 20 items divided into four subcategories; each one was measured by a Likert-type scale of seven (7) levels (ranging from "1 strongly disagree" to "7 strongly agree").

*Product innovation (SI)* embraced four elements, expressly introduction of new products, developing new product features, reposition of existing products, and new products to penetrate markets as used by Prajogo and McDermott (2014) and Vinarski-Peretz et al. (2011). A 7-point interval scale ranging from strongly agree = 1 to strongly disagree = 7 was used, and the respondents were asked to differentiate their businesses' product innovation and the marketing performance comparative to competitors.

*Process innovation (PI)* construct comprises four items, namely increase the speed of implementation, information accessibility, methods allowing work instruction, and cut variable cost. All these items were adapted/modified from (Bilderbeek et al., 1998). A 7-point interval scale ranging from strongly agree = 1 to strongly disagree = 7 was used,

and the respondents were asked to find their businesses' innovation process and the marketing performance with competitors.

*Marketing innovation (MI)* constructs were measured by seven items, i.e., innovating marketing programs to stay ahead of the market, finding new ways to build and improve relationships with customers, always revising the sales techniques, finding new methods to try, carrying out innovative marketing programs, looking for ways to develop new business models, constantly renewing the product design according to customer's needs and competitive products, and looking for ways to improve promotion methods and tools. All these items were adapted/modified from Deshpandé et al. (1993) and Sok et al. (2013). A 7-point interval scale ranging from strongly agree = 1 to strongly disagree = 7 was used, and the respondents were asked to show their businesses' marketing innovation relative to the marketing performance of competitors.

*Organization innovation (OI)* measurement embraces cooperation between units and departments, encouragement to disagree, encouragement to be multi-skilled, work well-being of employees, and appreciation of employees. All these items were adapted/modified from cf., Lampikoski and Emden (1999), Harborne and John (2003), Wan et al. (2005), van Hemert et al. (2013), and Dobni (2008)). A 7-point interval scale ranging from strongly agree = 1 to strongly disagree = 7 was used, and therefore, the respondents were asked to find their businesses' organizational innovation in respect to the marketing performance on competitors.

### **Transformational leadership as a moderator**

To measure transformational leadership styles, we used the Multifactor Leadership Questionnaire (MLQ-5x) developed by Avolio and Bass (1995). In this perspective, transformational leadership measures five dimensions describing leadership characteristics namely, idealized influence behavior, inspired motivation, intellectual stimulation, and individualized consideration.

### **Marketing performance-dependent**

Marketing performance as a dependent variable was measured by three (3) items such as profitability, customer satisfaction, and sales. All these items were adopted and modified from Katsikeas et al. (2016). These items were selected according to the uniqueness of each item and to maximize the construct's reliability and validity. In this research, the subjective perceptions of owners or managers of SMEs were used to evaluate the marketing performance. A 7-point interval scale ranging from strongly agree = 1 to strongly disagree = 7 was asked, and the respondents were asked to identify their businesses' firm marketing performance concerning innovation types as compared to competitors. As in the literature, e.g., Wang and Rode (2010) and Anning-Dorson (2016), the study controlled for the firm size, firm age, and sector as having a potential influence on the competitive advantage of a service firm.

### **Descriptive analysis**

Table 1 shows the SMEs participated in this study in Ghana with descriptive statistics of SME service sectors. The study results indicate 54% are males and 46% are females. More than 70% of these managers' educational background were proven to be educated as compared to 30% as less educated. The study further indicates hospitality (33%) and

**Table 1** Characteristics of Respondents

Variabls	Frequency	Valid Percent
Gender		
Male	236	54.0
Female	201	46.0
Age		
under 21 years	54	12.4
21–34 years	202	46.2
35–44 years	105	24.0
45–54 years	63	14.4
55–65 years	13	3.0
Education		
No formal education	54	12.4
Primary School	39	8.9
High/Secondary	62	14.2
Training/ Professional Cert	147	33.6
HND/Bachelor	127	29.1
Graduate & Post graduate	8	1.8
Establishment		
Less than 2 years	12	2.7
3 to 5 years	102	23.3
6 to 8 years	69	15.8
9 to 11 years	152	34.8
12 years & above	102	23.3
Location		
Accra	172	39.4
Kumasi	265	60.6
Forms of Business		
Private limited company	111	25.4
Partnership limited company	75	17.2
Public limited Company	43	9.8
Sole Proprietorship	168	38.4
Family owned business	40	9.2
Employees		
Less than 5 (Micro)	59	13.5
6–29 (Small)	293	67.0
30–99 (Medium)	70	16.0
100 & more (Large)	15	3.4
Role in the Firm		
General Manager/Owner	232	53.1
Marketing/Sales manager	158	36.2
Supervisor	47	10.8
Current Business		
Existing	194	44.4
Existing concept in Ghana	147	33.6
Never existed	96	22.0

**Table 1** Characteristics of Respondents (*Continued*)

Variables	Frequency	Valid Percent
Sector		
Hospitality	144	33.0
Beauty	136	31.1
Transportation	87	19.9
Banking service	70	16.0

beauty (31%) having a strong presence in the SME service sector as compared to transport (19.9%) and banking (16%). In term of age, the study found strong evidence of the youth from 18 to 35 years operating more in the SME service sector. Lastly, the SME business type was predominately owned by a sole proprietor (38.4%), a private limited liability (25.4%), a partnership limited liability (17.2%) as compared to a public limited liability (9.8%), and a family-owned business hold (9.2%).

### Analysis and results

To analyze the hypotheses in this study, a two-step approach was recommended by Anderson and Gerbing (1988). In the experimental research, Anderson and Gerbing (1988) recommended evaluating the measurement model before testing the proposed relationships. This study first examined and confirmed the procedures for the six constructs used in the study. The second phase adopted structural equation modeling to test the three hypotheses. The study embraced the SEM approach identified by MacKinnon et al. (2002). SEM is generally the preferred causal modeling method (Lu et al., 2010) where scholars can use it to control measurement errors and provide information on the degree of appropriateness of tested moderation effect analysis (MacKinnon et al., 2002). According to Hair et al. (2011), an empirical connection in SEM can be made easy when the hypothesized relationship has a robust theoretical foundation. As such, SEM is handy in assessing the reliability of causal relationships that researchers develop based on the theory (Tobbin and Kuwornu, 2011). Therefore, SEM comparison models help to assess the relationships of moderation (Anning-Dorson, 2016). SEM causal relationship model involving moderation was considered useful of 0.70 (Bagozzi and Yi, 2012) and ranged from 0.796 to 0.838. The study 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 specified value of 0.50 (Hair et al., 2006) and therefore support convergent validity.

To estimate the relationships in the empirical model, this study employs variance-based advanced structural equation modeling techniques, i.e., partial least squares (PLS). PLS-SEM is a causal modeling approach that focuses on maximizing the variance of the dependent latent constructs explained by the ones of independent variables. PLS path modeling is applied in this study in four steps. The first section explains why PLS-SEM is best suited to test the predicted effects and introduces PLS-SEM in general. The analytical process starts in the second step with the operationalization of the constructs. Next, the measurement model is evaluated to ensure reliability and validity. Lastly, the analyses conclude with the evaluation of the structural model and with the testing of the hypothesized associations. There were four stages involved in data analysis: data screening, exploratory factor analysis (EFA), confirmatory factor analysis

(CFA), and path Analysis. Data were analyzed using SPSS 22.0 and SmartPLS. SPSS (formally referred to as Statistical Package for Social Science) was used to conduct data cleaning and preliminary analysis of data and EFA. SPSS is a powerful, user-friendly software package for the manipulation and statistical analysis of data used in social science research (Acton et al., 2009). SmartPLS was used to perform the structural equation modeling through CFA and the development of path analyses for testing the hypotheses. SEM has become a favorite technique for researchers across a variety of disciplines and progressively is a “must” for research in the social sciences (Hooper et al., 2008).

**Reliability, validity, and measurement model analysis**

The study used standard measures and was therefore explored to confirm the suitability of the constructs through validity and reliability assessments. Discriminant validity and descriptive statistics were determined as displayed in Table 2 and Table 3, respectively. Moreover, before affirmation, an exploratory factor analysis (EFA) was performed as shown in Table 4. The study initially evaluated the reliability and validity before estimating the hypothesized model. The study used SmartPLS 3.0 and maximum likelihood estimation to examine all the parameters in the CFA analysis where the measurements were self-evaluated. CFA is recommended for assessing the validity and reliability of self-measuring instruments (Montoya-Weiss and Calantone, 1994). CFA enhances the similar measurement properties of the approved constructs (Anderson and Gerbing, 1988). CFA provides some approximate fit heuristics that help improve the measurement of a construct.

Following Bagozzi and Yi (2012), some approximate fit heuristics were also assessed to provide additional information on model fit and the indicators ranged from acceptable to excellent. A six-factor confirmatory factor analysis model fits the data very well, with indicators meeting the specific criteria observed in Table 5 which shows that chi-square = 1011.956, NFI = 0.931, and SRMR = 0.045. All factor loading constructs were positive and significant as shown in Table 6. The study examined the construct reliability (CR) which refers to the measure of reliability and internal consistency of the measured variables representing a latent construct, and it must be established before construct validity can be determined

**Table 2** Fornell-Larcker Criterion for Discriminant Validity.

	Marketing Innovation	Organization Innovation	Process Innovation	Product Innovation	Marketing Performance	Transformational Leadership
Marketing Innovation	<b>0.838</b>					
Organization Innovation	0.691	<b>0.796</b>				
Process Innovation	0.503	0.604	<b>0.821</b>			
Product Innovation	0.598	0.729	0.686	<b>0.812</b>		
Marketing Performance	0.612	0.423	0.467	0.620	<b>0.809</b>	
Transformational Leadership	0.603	0.335	0.392	0.509	0.640	<b>0.821</b>

Note: 1% level of significance is set for getting values of correlation coefficient

**Table 3** Summary Descriptive Statistics

Constructs	Mean	Std
Marketing Innovation	3.258	1.282
Organization Innovation	3.446	1.219
Process Innovation	3.699	1.308
Product Innovation	3.593	1.184
Marketing Performance	3.872	1.013
Transformational Leadership	3.611	1.101

(Hair et al., 2011) Fig. 2. Average variance extracted (AVE) measures the amount of variance captured by a construct about the variance due to random measurement error (Fornell and Larcker, 1981). CR and AVE were also examined as measures of scale or construct reliability. In order to achieve good reliability measure and high internal consistency, the CR values should be higher than 0.6 (Bagozzi and Yi, 1988). Hair et al. (2011) asserted that reliability between 0.6 and 0.7 is an acceptable

**Table 4** Cross loadings between Constructs

	Marketing Innovation	Organization Innovation	Process Innovation	Product Innovation	Marketing Performance	Transformational Leadership
M1	0.893					
M2	0.867					
M3	0.880					
M4	0.704					
M5	0.886					
M6	0.889					
M7	0.858					
O1		0.841				
O2		0.846				
O3		0.858				
O4		0.759				
O5		0.742				
P1			0.814			
P2			0.779			
P3			0.803			
P4			0.888			
S1				0.913		
S2				0.772		
S3				0.883		
S4				0.788		
MP1					0.920	
MP2					0.910	
MP3					0.753	
LS1						0.799
LS2						0.707
LS3						0.804
LS4						0.750

**Table 5** Model Fit Summary

	Saturated Model	Estimated Model
SRMR	0.045	0.045
d_ULS	4.018	4.018
d_G1	1.735	1.736
d_G2	1.419	1.419
Chi-Square	1011.956	1011.956
NFI	0.931	0.931

indicator of good reliability. AVE is also used as a measure of convergent validity. Baumgartner et al. (1994) asserted that AVE values  $> 0.4$  are considered acceptable measures of convergence validity. The findings on the measures of CR and AVE are shown in Table 6.

### Structural model

To test the three hypotheses, structural equation modeling and a multiplicative approach were used to examine the moderation-mediation impact on relationships as suggested by (Hayes, 2012). It should be indicated that indirect relationships are defined in the structural model but are not particularly relevant in this study. These relationships are determined to take into account the potential effects of these variables on the dependent variables in order to strengthen the relevance of the model. The study precisely adopted Hoyle (1995) to actualize different indicators for each variable involved in multiplicative properties, as the use of unique indicators reduces the complexity of the model. All measures involved in the multiplicative properties were adhered to by the suggestions made by Hoyle (1995). To test the hypothesized model, a sequence of three constructive models was estimated. The baseline model was tested for the first time between the relationship between innovation and marketing performance. Model 2 was based on the estimation of the moderating effect of transformational leadership on the relationship between innovation and marketing performance. Then, an unlimited model was estimated (Table 7 and Fig. 2) in which all variables (including assumed paths) were freely estimated.

### Hypothesis testing

To test the hypotheses developed in this study, path analysis using the maximum likelihood estimation was used to consider the rational and significant role of

**Table 6** Construct Reliability and Validity

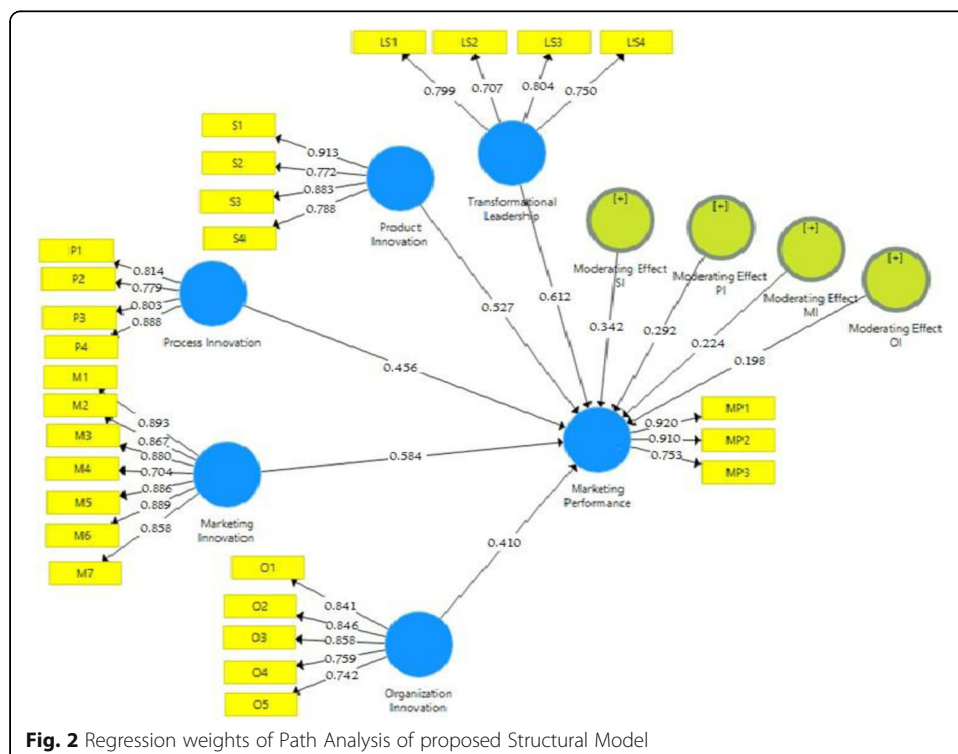
Constructs	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Marketing Innovation	0.820	0.768	0.849	0.702
Organization Innovation	0.809	0.801	0.815	0.752
Process Innovation	0.841	0.811	0.851	0.713
Product Innovation	0.839	0.799	0.848	0.746
Marketing Performance	0.861	0.840	0.872	0.656
Transformational Leadership	0.765	0.714	0.779	0.675



**Table 7** Indicating the Path Relationship between MI, OI, PI, SI, TL and MP

Path Relationship	$\beta$	STD. error	t-values	P Values
H1a: Marketing Innovation → Marketing Performance	0.5840	0.020	29.430	< 0.001
H1b: Organization Innovation → Marketing Performance	0.4103	0.096	4.289	0.023
H1c: Process Innovation → Marketing Performance	0.4562	0.028	16.503	< 0.001
H1d: Product Innovation → Marketing Performance	0.5271	0.052	10.092	0.005
H2: Transformational Leadership → Marketing Performance	0.6123	0.049	12.498	< 0.001
H3a: Moderating Effect MI → Marketing Performance	0.2238	0.055	4.089	0.025
H3b: Moderating Effect OI → Marketing Performance	0.1980	0.228	0.868	0.754
H3c: Moderating Effect PI → Marketing Performance	0.2921	0.015	19.701	< 0.001
H3d: Moderating Effect SI → Marketing Performance	0.3422	0.092	3.704	0.046

transformational leadership between innovation and marketing performance through moderation analysis. Path analysis, which is a subset of SEM, uses bivariate correlations to assess the direct and indirect relationships among these variables. This procedure assesses the strength of each structural relationship in a path diagram (Hair et al., 2013). We used structural equation modeling SEM-SmartPLS to test our hypotheses. The results summarized in Table 7 show that model 1 predicted that innovation (InT) is positively significant to marketing performance (MP), as shown in Table 7 ( $\beta = 0.584, p < 0.001$ ), supporting H1a. The study found support for H1b of the positive relationship between organization innovation and MP. As shown in Table 7 ( $\beta = 0.410, p < 0.023$ ), therefore, H1b was supported. Hypothesis 1c predicted that process innovation is related to MP. As shown in Table 7 ( $\beta = 0.456, p < 0.001$ ), we found a positive relationship between process innovation and MP, supporting H1c. The study found

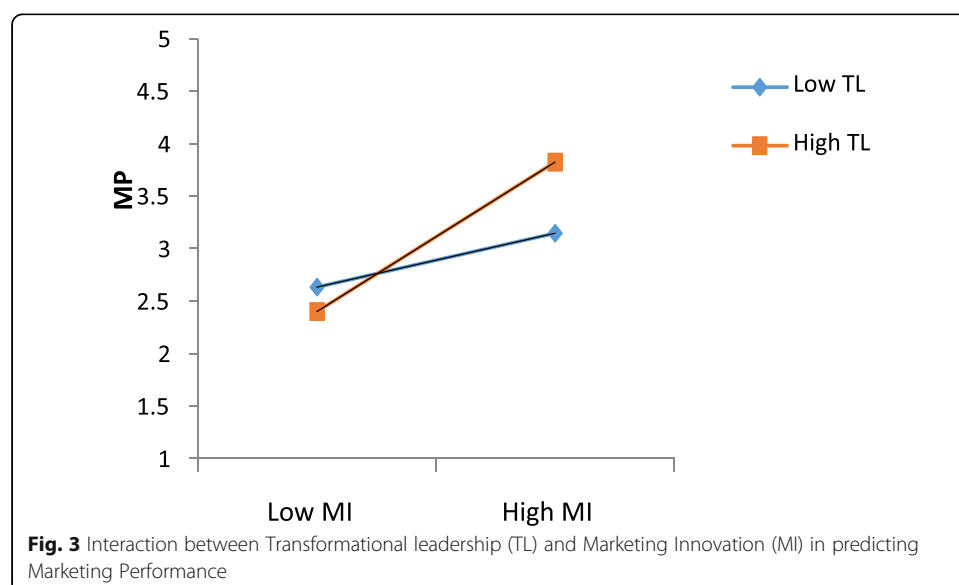


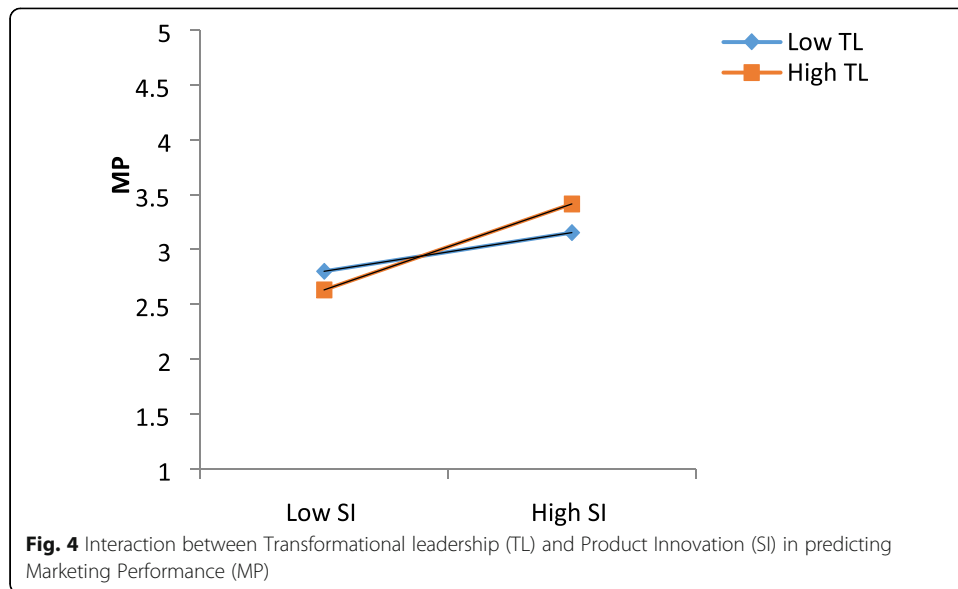
**Fig. 2** Regression weights of Path Analysis of proposed Structural Model

support for H1d of the positive relationship between product innovation and MP, as described in Table 7 ( $\beta = 0.527, p < 0.005$ ); therefore, H1d was supported. Hypothesis 2 predicted that TL is related to MP; as shown in Table 7 ( $\beta = 0.612, p < 0.001$ ), we found a positive relationship between TL and MP, supporting H2.

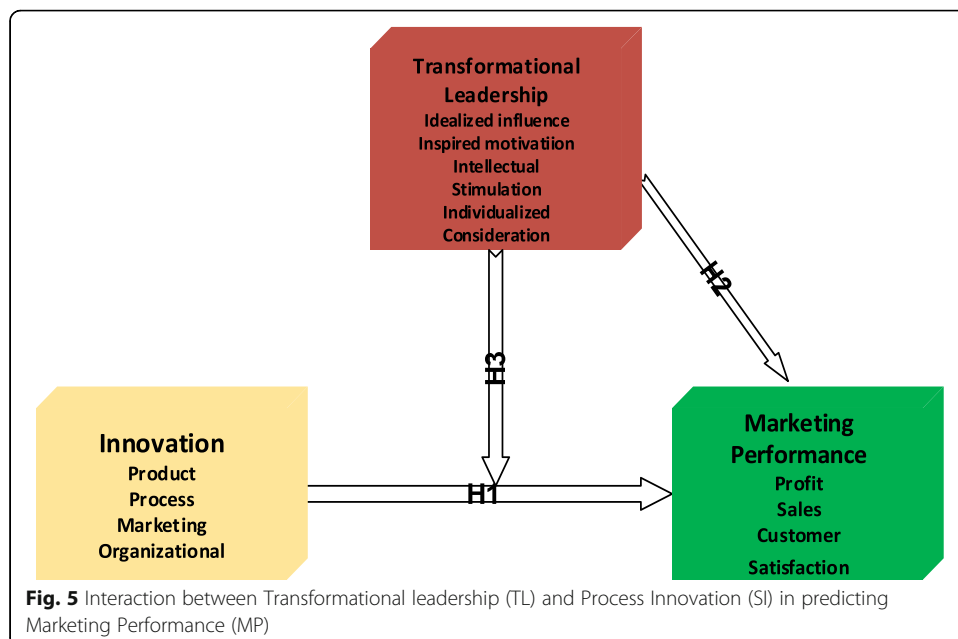
### Moderation analysis

To test our hypothesized moderating effects, we created interaction terms by the case-wise multiplication of the underlying standardized construct scores for the predictor and moderator variable. Both the moderating latent variable and the interaction terms were then included in SmartPLS. Our results in Table 7 demonstrate H3a, H3b, H3c, and H3d suggested the moderating effect of transformational leadership on the relationship between innovation types and marketing performance. Table 7 highlights the results of the H3 test. The interaction MI supported H3, TL, and MP shown in Table 7 ( $\beta = 0.223, t = 4.089, p < 0.025$ ), and the interplay was statistically significant in the prediction of MP (Figs. 3, 4 and 5). With the purpose to check the disposition of the significant interaction, the slope of the simple regression of TL and MP is illustrated. The study further tested the moderating effect of transformational leadership (TL) on the relationship between innovation and marketing performance through graphical demonstration. The study followed Cohen et al.'s (1983) procedure to plot the interaction effect; low and high TL were defined as shown in Fig. 3 indicating the effect of TL on innovation and marketing performance relationship. Figure 3 indicates that TL is more related to MP than to the high level of TL as low TL. Thus, the results support for H5. Following Cohen et al. (1983), low and high TL were defined. The interaction was illustrated in Fig. 3. According to the analysis, the moderating effect of TL is more related to MP than to the high level of TL as low TL. Therefore, these results supported the H3. H3b was not supported as the expression of interaction OI, TL, and MP in Table 7 ( $\beta = 0.198, t = 0.868, p < 0.754$ ). The interaction was not statistically significant in the prediction of MP. H3c was compatible with the interaction





PI, TL, and MP as shown in Table 7 ( $\beta = 0.292, t = 19,701, p < 0.001$ ), and the interaction term was statistically significant in the prediction of MP. Thus, to examine the nature of the significant interaction, we have represented the slope of the simple regression of TL and PI as shown in Fig. 4. The results showed that TL indicates the strongest mitigation effect of PI and MP with a weak difference in effect between high and low TL. Therefore, the result provided support for H3c. Finally, H3d was supported by the interaction expression SI, TL, and MP as highlighted in Table 7 ( $\beta = 0.342, t = 3.701, p < 0.046$ ), and the interplay was statistically significant in predicting MP. Hence, to examine the nature of the significant interaction, we have represented the slope of the simple regression of TL and MP as shown in Fig. 5. The results illustrate that TL has a more



moderating effect between high and low TL values. Therefore, the result provided support for H3d.

### **Discussion**

The study seeks to enrich the innovation and marketing performance of SMEs in developing economies, by examining the effects of transformational leadership as a resource capability. More specifically, the study aims to answer the following research questions: to examine how innovation affects the marketing performance of SMEs (model 1) and to examine the moderating role of transformational leadership in the relationship between innovation and marketing performance of SMEs (model 2) Fig. 1. The study findings point to transformational leadership as resource capabilities which play a vital role between innovation and marketing performance. Our results indicate that these impacts are substantial and have a significant impact on SMEs in the marketplace. The research findings provide many important and exciting academic and practical implications.

The study confirmed that innovation has a positive and significant effect on marketing performance of SMEs. This supports the studies of Yıldız et al. (2014) and Afriyie et al. (2018). Thus, an improvement in the level of innovation activities (product, process, marketing, and organization) is likely to enhance marketing performance. Therefore, SME managers/owners 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 marketing performance.

The study finally tested moderation situation on the transformational leader on the relationship between innovation and marketing performance. The findings established the direct relationship between transformational leader, innovation, and marketing performance of SMEs. Indicating 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 marketing performance. These results suggest that TL is critical to the success of SMEs. Thus, it offers opportunities for SME managers and owners to understand the four critical attributes (idealized influence, intellectual stimulation, inspirational motivation, and individual consideration) of TL which invariably would improve the innovation, thus leading to the marketing performance of SMEs. However, TL thoroughly moderates the relationship between innovation and marketing performance. Contextually, implementing these concepts in SMEs requires careful planning and resource investments in order to avoid being counterproductive.

### **Theoretical implications**

The first theoretical contribution of this study comes from a framework based on the theory of transformational leadership and RBV. This framework reinforces the knowledge of leadership to emphasize the applicability of these western concepts to a developing country such as Ghana. Besides, the assessment of transformational leadership as resource capabilities can conclusively determine whether transformational leadership has an impact on the marketing performance of SMEs. It can be concluded that transformational leadership is the essential resource capabilities to improve and maintain marketing performance. It was empirically proven that transformational leadership has

significant positive relationships with measures of marketing performance. The analytical and hypotheses testing provided evidence that SME managers viewed themselves as leaders of transformation and both had significant positive effects on marketing performance. The study also makes a significant contribution to innovation in the context of a developing country. The results of this study show that innovation is an important strategic focus for small- and medium-sized enterprises and that the impact of each type of innovation varies independently. Quantitative data provided revealed that SME managers believed to practice and develop this strategic direction in their organization. Empirical results have shown positive effects between each type of innovation and marketing performance. However, only product, process, and marketing were found to have significant positive effects on sales, customer satisfaction, and profitability. The data reflecting on innovation, transformational leadership, and marketing performance enhances organizational growth.

Transformational leadership has been established to have a stronger and more meaningful relationship with innovation and marketing performance measures. This means that transformational leadership can foster the effective use of a company's strategic role, which produces positive results. Theoretically, managers with transformational leadership behavior who embrace innovation activities would have a significant impact on marketing performance. Another important outcome of this study is that transformational leadership is seen as having a stronger impact on innovation and marketing performance. While most of the studies of small firms in developing countries indicated the opposite (Mansuri and Rao, 2012; Paracha et al., 2012), the results of this study were similar to those of the majority of western research (Boerner et al., 2007; Bass et al., 2003). Thus, SME managers believe that marketing performance for their companies will improve if they adopt the style of transformational leadership. This result contributes significantly to leadership research, particularly in the context of SMEs in a developing economy.

### **Managerial implications**

The primary objective of this study is to present results that can be beneficial and practical for SMEs in a developing economy. The findings of this study concluded that the transformational leadership style of SMEs managers is an operative variable that affects the innovation activities and the marketing performance of a firm. The useful display and practice of transformational leadership style are perceived to positively impact the company's innovation activities and marketing performance outcomes. More importantly, owners of SME establishments in this sector are encouraged to understand the complex interaction between their leadership style and the practice in their organization, as these factors are acknowledged as critical for organizational success. It is hoped that the results of this study will help bridge the gap in understanding the leadership style of SME managers in a developing economy. The study concluded that SME leader's practice and exhibition of transformational leadership style, thus, 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 of transformational leadership by the managers of small and medium enterprises in Ghana. As a result, managers are encouraged to deepen their understanding of the

transformational leadership style. Personal initiatives to learn and develop skills and knowledge about this type of leadership can be beneficial for them and their business.

The results gathered from the set of data established the form of leadership style that would contribute most to the success of SMEs. This study recommended that transformational leadership is a more efficient form of leadership style. Therefore, SME managers need to demonstrate, practice, and sustain the qualities of transformational leadership to improve the marketing performance of their organization. The attributes associated with transformational leadership raise the level of motivation for staff and encourage them to reach their full potential. On the other hand, business owners who practice transformational leadership seem to generate and achieve better marketing performance associated with high sales, customer satisfaction, and high profitability. Quantitative results of the study have critical implications for the development of strategic direction in a company. Thus, the empirical results indicate that the ability of SMEs to innovate, to be proactive in their strategic actions, and to be willing to take significant risks can have a significant impact on the success of the business. Therefore, the implementation and development of innovation activities call for companies to be persistent, consistent, and creative in their efforts and to allocate resources to invest in their services. These managerial dispositions must be the practice of leaders which must be transferred to each employee of the organization to optimize the results for the firm.

Practically, the results of this study provide a clear indication that the perceptions of SME 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, in order 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 marketing performance of SMEs and firms' innovation abilities through transformational leadership style, 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.

To summarize, this study makes concrete contributions by providing an empirical framework and findings for understanding innovation and marketing performance in the context of SMEs in a developing country. It was found that the attributes of transformational leadership as resource capabilities provide a positive impact on organizational marketing performance outcomes. These proved results might help these organizations to focus on what matters to improve their marketing performance.

### **Limitations and directions for future research**

This study is not without its limitations. First, as with all cross-sectional studies and data collected from the service sector of SMEs in Ghana, the causal relationship between the study variables and the theory is still not proven. The major limitation is that the study used only the quantitative survey, with a structured questionnaire due to the primary data collection tool. The structured questionnaire denies the opportunity to explore many of the relevant issues of the responses, but all the checks have been undertaken to determine the validity and reliability of the information collected.

Furthermore, the study should be circulated to all countries with caution because the information collected from SME is in two cities in Ghana specifically. The second limitation of this analysis is the qualitative information for marketing performance. We tend to use qualitative information to predict firm marketing performance because of the company's intervention to provide original data. However, subjective information is widely used in organizational research (Azaranga et al., 1998, Dess and Robinson Jr., 1984). Consequently, these criteria should be studied in future research as well as the applications of these variables in the SME manufacturing sector. Third, the current study examined the TL effect based on each rating, but the group-level analysis is also important (West and Anderson, 1996). Therefore, it would be useful to study the effects of TL and other variables that can be manipulated by team level dynamics (or groups) such as trust in the team, team creativity, and team innovative performance in the future.

## Conclusion

The study contributes to the existing literature by revealing the strategic role of transformational leadership style on the relationship between innovation and marketing performance of SMEs in Ghana. The theoretical model demonstrated that the relationships between transformational leadership (RBV), innovation, and marketing performance of SMEs were more deeply connected as against these variables been separate from marketing performance specifically. Therefore, managers should be critical in its implementation when expected to achieve higher levels of marketing performance of SME. Moreover, the empirical test and theoretical model extend the marketing performance literature by proving the moderating role of transformational leadership as a critical resource and capability in SME service sector. In summary, the authors believe that the current study will provide researchers with some key aspects to investigate in this field of study.

## Abbreviations

MP: Marketing performance; MSB: Micro small business; NBSSI: National Board of Small Scale Industry; RBV: Resource-based view; SME: Small medium enterprise; TL: Transformational leadership

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Not applicable.

## Authors' contributions

This work was carried out in collaboration between all authors. SA designed the study, performed the statistical analysis, and wrote the protocol and first draft of the manuscript. JD and AAIM managed the analyses of the study. SA managed the literature searches. All authors read and approved the final manuscript.

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## Availability of data and materials

The datasets used and analyzed during the current study are available from the corresponding author on reasonable request.

## Competing interests

The authors declare that they have no competing interests.

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