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When and how does creativity influence performance? An examination of SMEs in an emerging economy

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ABSTRACT

Underpinned by the resource-based view and social capital theories, this study examines the mediating role of innovation in the relationship between creativity and the performance of SMEs in an emerging economy. We propose additionally that the innovation created through the transformation of creative ideas influences performance within the boundary conditions of social network ties. We collected our data from two hundred and fifty (250) SMEs in Ghana using questionnaires and analyzed the data using Structural Equation Model in LISREL 8.50 and PROCESS in SPSS version 23. Our results show that there is a positive relationship between creativity and performance. The study further reveals that product innovation mediates the relationship between creativity and firm performance. Although we did not find enough evidence to support the notion that social network ties moderate the indirect effect of creativity on performance, through process innovation, the results suggest that the conditional indirect effect of creativity on performance through product innovation is positive and stronger at high levels of social network ties. The implications of these results are discussed.

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Creativity; innovation; performance; social network ties; emerging economy

Introduction

Small and Medium-sized Enterprises (SMEs) in emerging economies are critical drivers of economic growth and job creation. SMEs play a crucial role in the economies of sub-Saharan Africa, contributing to employment, economic growth, GDP, and innovation (Adomako & Nguyen, 2020; Ofori & Aryeetey, 2011). In Ghana, SMEs play a critical role in economic development, contributing 85% of manufacturing employment and 70% of GDP, fostering innovation, entrepreneurship, and diversity (GCB Strategy and Research Department, 2023). However, despite the pivotal role played by SMEs, these firms face persistent challenges in leveraging their organizational creativity to enhance firm performance due to limited innovation capacities. Notwithstanding the recognized

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importance of creativity and innovation in fostering competitiveness, SMEs in Ghana often struggle to realize the full potential of their creative efforts. This limitation is compounded by weak social network ties, which are crucial for accessing resources, knowledge, and market opportunities necessary for innovation.

Accordingly, both scholars and businesses have shown a growing interest in understanding the role of creativity in achieving firm success, gaining a competitive edge, and improving performance (Dolmans et al., 2014; Kiranantawat & Ahmad, 2023; Zacher & Rosing, 2015). Numerous studies have highlighted the significant impact of creativity on firm performance (Awan et al., 2019; Boso et al., 2017; Khedhaouria et al., 2015; Przychodzen et al., 2016; Souto, 2022). Notably, a survey of 1500 CEOs across 33 industries in 60 countries conducted by IBM in 2010 identified creativity as the most critical predictor of business success. Creativity is commonly defined as the generation of novel and valuable ideas, which can manifest at various levels, including employee, individual, or organizational (Farid et al., 1993)

Despite the substantial attention creativity has received from both scholars and practitioners, the literature on the relationship between creativity and performance remains inconsistent and inconclusive (Ferreira et al., 2020; Souto, 2022). While some view creativity as an idiosyncratic resource that promotes creative behaviors and, subsequently, firm outcomes (Weinzimmer et al., 2011), other studies (Bigliardi, 2013; Boso et al., 2017) have found limited empirical evidence supporting the proposed direct link between creativity and performance. In an attempt to reconcile these disparate findings, Von Nordenflycht (2007) emphasized the importance of considering the mechanisms that mediate this relationship. Addressing this call, Weinzimmer et al. (2011) explored the creativity-performance link through action orientation, concluding that performance improvement relies on the effective strategic implementation of creative ideas. Similarly, Boso et al. (2017) argued that a firm's creativity can enhance performance by creating firm-specific advantages through innovation, which, in turn, increases customer loyalty and market share by erecting barriers to entry. However, previous research has largely neglected the role of innovation in mediating the creativity-performance relationship. In this study, we contend that creativity may not directly lead to performance improvements unless channeled through innovation. In this context, we define innovation as the transformative process of translating and implementing creative ideas into valuable products, processes, and services. We propose that creativity, manifested as novel and useful ideas, can drive performance only when these ideas are effectively transformed into valuable offerings that enhance market share and economic rent.

Furthermore, previous scholarly investigations into the relationship between innovation and performance have highlighted the importance of contextual factors and called for the consideration of relevant boundary conditions (Agyapong et al., 2021; Bustinza et al., 2019; Carmona-Lavado et al., 2020). To address this issue, studies such as those by Adomako (2017) and Suzuki (2018) have examined the boundary conditions influencing this crucial relationship. Cultural context emerges as a significant factor, with research suggesting that the strength of the innovation – performance relationship is greater in collectivist cultural environments compared to individualistic ones (Agyapong et al., 2021; Carmona-Lavado et al., 2020). Building on these findings, we propose that in a collectivist cultural context, social network ties serve as critical assets that strengthen the impact of innovation on performance. Specifically, in a cultural environment characterized by high collectivism, such as sub-Saharan Africa, network ties play a pivotal role in enhancing the effectiveness of innovation initiatives. These networks facilitate the transfer of

valuable resources and information, enabling firms to position their innovations effectively and ultimately improve performance. Accordingly, we proceed by answering the following research question: *How do varying levels of social network ties condition the indirect effect of organizational creativity on firm performance through innovation in SMEs within emerging economies?*

We anchor our arguments in the resource-based view, which conceptualizes creativity, innovation, and social network ties as idiosyncratic resources that underpin enhanced firm performance (Peteraf & Barney, 2003). We contend that the intricate interplay of these resources elucidates business success and performance improvements, particularly among Small and Medium-sized Enterprises (SMEs). Our study contributes to the organizational creativity-performance literature in several ways. Firstly, it offers empirical evidence that contributes to the ongoing discourse on the impact of organizational creativity on performance, thereby shedding light on the diverse perspectives in this area. Secondly, our study posits that innovation acts as a mechanism for bridging the gap between organizational creativity and SME performance in an emerging economy. The indirect relationship between organizational creativity and performance through innovation is contingent upon the level of influence of social network ties. Thus, we provide clarity on the mechanisms and conditions through which organizational creativity translates into performance. Lastly, by examining the role of creativity and innovation in an emerging sub-Saharan African context, specifically Ghana, our study expands the empirical analysis of organizational creativity and its performance implications beyond Western perspectives. The rapid growth and resource constraints characterizing the Ghanaian economy make it a unique and fertile ground for exploring the role of creativity in fostering growth, success and enhanced firm performance (Martin & Javalgi, 2016).

The rest of the paper is organized as follows. The next section that follows this introduction presents the theoretical background and derives the hypotheses. The next section is devoted to the methodology, which explains the data and statistical methods. A further section presents the results of the analysis, while the last section discusses the discussion of the findings and concludes the study.

Theory and Hypotheses

Relationship between Creativity and Performance

In this study, the relationship between creativity and performance is underpinned by the Resource-Based View (RBV). RBV is a strategic framework that assesses and analyzes internal resources and capabilities as a foundation for crafting strategies aimed at achieving sustainable competitive advantages (Bigelow & Barney, 2021). The RBV, introduced by Barney (1991), posits that firms possess heterogeneous bundles of resources that, when valuable, rare, inimitable, and non-substitutable (VRIN), can lead to sustained competitive advantage. These resources can include tangible assets, intangible assets, and organizational capabilities (Barney, 1991; Wernerfelt, 1984). Conceptualized as an intangible resource, creativity aligns well with RBV, because it enables firms to develop unique innovations that drive performance. Moreover, as a strategic resource, creativity enables firms to develop unique ideas, innovative products, and novel business models that competitors find difficult to replicate. This makes creativity a strategic intangible asset that sets firms apart and enhances sustainable competitive advantage.

While creativity and performance have been extensively studied in Western contexts, they are still relatively nascent concepts in developing regions such as sub-Saharan Africa. Scholars like Armougum et al. (2019) and Makransky et al. (2019) underscore the pivotal role of the creativity-performance linkage in organizational success. Thus, we conceptualize creativity as an organizational capability that encompasses the creation of products, values, services, routines, ideas, and processes. It also encompasses the entrepreneurial attributes of individuals who collaborate within a complex social system to cultivate unique capacities for addressing intricate challenges and achieving sustainable performance (Amabile et al., 1996).

Recognizing creativity as a means to attain performance, as advocated by creativity studies, is paramount (Mabey & Nicholds, 2015). Contrary to the assumption that creativity flourishes in stable social environments, organizational creativity assumes critical importance in surmounting challenges during uncertain times (Gao et al., 2021). This is particularly pertinent in unstable environments like sub-Saharan Africa, characterized by uncertainties, macroeconomic fluctuations, and instability. In such contexts, SMEs confront institutional weaknesses, bureaucratic structures, an unregulated business environment, and suboptimal implementation of regulations. Therefore, the development of creativity becomes a crucial firm-level capability for the survival and success of SMEs.

Prior studies have demonstrated that organizational creativity is a critical resource that enables firms to achieve high performance (Agyapong et al., 2024; Gao et al., 2021). According to Curado et al. (2018) and Wijayanto and Sanaji (2021) product innovation performance is the outcome of a successful implementation of novel and useful ideas and that organizational creativity is the starting point of every product innovation. Creative firms can innovate easily and faster to take advantage of some identified opportunities, leading to sustained competitive advantage Gao et al. (2021). Innovative products largely attract acceptance and provide customers enough motivation to choose such a product over competitor offerings (Agyapong et al., 2021). Indeed, creativity improves product differentiation and innovativeness for higher performance (Caniëls & Rietzschel, 2015; Mardani et al., 2018).

As organizations engage with their environments, creativity assumes increasing importance in addressing new challenges (Hughes et al., 2018). According to Jie et al. (2023), small and medium-sized firms require a diverse array of intangible resources and competencies to enhance their capabilities and performance. Our explanation extends this association, positing that creativity plays a pivotal role in fostering performance, and consequently, inventive and entrepreneurial qualities, by nurturing both divergent and convergent thinking. As a result, it is possible to hypothesize that:

H1. There is a positive relationship between creativity and performance.

Mediating Role of Product and Process Innovation

Creativity is commonly defined as the generation of innovative and beneficial ideas, transcending specific domains (Jeong et al., 2017). When these ideas are shared and acknowledged as valuable within a social group or organization, they transform into what we term as organizational creativity (Amabile et al., 1996). Organizational creativity thrives when individuals effectively interact within a complex social environment, often necessitating the innovation of products, services, ideas, and procedures, resulting in the creation of value (Tussyadiah et al., 2018).

Damanpour and Aravind (2012) defines innovation as a process of generating, refining, and executing novel or improved concepts, products, services, administrative frameworks, or programs, ultimately ushering in positive transformative change. In this study, innovation is construed as a transformative process that involves the conversion and implementation of these creative ideas into valuable products, processes, and services. While a substantial body of scholarly work has explored the relationship between creativity and firm-level performance, the empirical findings remain inconclusive and inconsistent (Boso et al., 2017; Eryigit & Uslu, 2016). While most studies have generally established the nexus between creativity and performance, most of these prior studies have not explored how this relationship is established. Given the existing gaps in the literature, there has been a call to examine the mechanisms through which creativity exerts its influence on performance (Agyapong et al., 2024; Boso et al., 2017; Von Nordenflycht, 2007). We proceed that while creativity constitutes the fundamental resource with the potential to increase performance, the realization of this relationship depends on transforming these creative concepts into innovative and valuable products and processes. Consequently, product and process innovations constitute capability-enhancing mechanisms that translate creativity into tangible business outcomes, reinforcing RBV's emphasize resource transformation. Therefore, creativity constitutes a driving force behind the introduction of innovative and valuable products and processes, which, in turn, cater to customer and market demands (Acar et al., 2019; Castillo-Vergara et al., 2018).

Consequently, we assert that innovation is an outcome of creativity (Amabile et al., 1996). As highlighted by Tsai et al. (2021), for a company aiming to enhance its performance, it must wholeheartedly embrace innovation. Innovation can be approached from two angles: product innovation and process innovation. The organizational capacity for creativity and innovation is vested in the ability of employees to revamp and enhance production processes, resulting in the creation of goods and services that distinguish themselves from competitors' offerings. To a significant extent, the ability to foster creativity empowers firms to secure a competitive edge, which often translates into superior performance outcomes. Thus, the linkage between creativity and performance is mediated by employees' aptitude for innovation (de Vasconcellos et al., 2020). This is because innovation is the culmination of the collective effort and interactions of individuals within a company (Jie et al., 2023). Therefore, our contention is that process and product innovation serve as mediating factors in the indirect relationship between creativity and performance. As a result, it is possible to hypothesize that:

Hypothesis 2a: The relationship between creativity and organizational performance is mediated by process innovation.

Hypothesis 2b: The relationship between creativity and organizational performance is mediated by product innovation.

Moderating Role of Social Network Ties on the Relationship between Innovation and Performance

The integration of business innovativeness and network structure, as suggested by Tsai (2001), is anticipated to yield a significant competitive advantage for firms that emphasize the role of various social influences in individual and organizational development. To further support the idea that high levels of product and process innovation are conducive

to improved performance, this study aims to explore whether the impact of product and process innovation on performance is contingent on the extent of social network linkages within a less developed market context. Following Nahapiet and Goshal (1998) social capital theory, we define social network ties as the distribution of resources and information that a firm can access due to its position within a social network structure. It is important to note that social ties constitute the social structure that underpins the social network (van Burg et al., 2022). The study is underpinned by social capital theory because the theory focuses on the role of social networks in facilitating resource exchange, information and knowledge sharing, and access to market opportunities. In this study, social network ties represent an external enabler that can amplify the influence of creativity-driven innovation on firm performance. Therefore, we argue that product innovation benefits more from strong social ties, suggesting that firms with better networks can leverage external resources more effectively. Accordingly, social capital theory becomes particularly relevant because SMEs in the context of sub-Saharan Africa often lack internal resources so they rely on external relationships and networks to enhance performance.

The inclusion of social network connections as a potential contingency element in the relationship between creativity and performance is crucial in developing country markets where social interactions and institutional frameworks exert significant influence on corporate activities (Acquaah, 2007). For instance, Acquaah (2007) emphasizes the prevalent collectivist culture in less developed societies, such as sub-Saharan Africa, where local community leaders (such as chiefs, kings, priests, and business leaders) play pivotal roles in resource allocation and information dissemination. Similarly, Boso et al. (2017) indicate that in less developed and more collectivist societies, sharing local market knowledge is a social activity. Hence, the social and institutional framework in which firms operate may impact how entrepreneurial processes and marketing-related activities help businesses leverage the entrepreneurial landscape in less developed economies. The theory of social capital posits that institutionalized social interactions can significantly influence business activities, leading to the suggestion that companies should leverage their network of social connections to optimize business operations in less developed markets (Boso et al., 2013).

Therefore, this study contends that higher levels of product and process innovation in an environment rich in social network ties may result in enhanced performance for entrepreneurial firms in emerging economies. By capitalizing on the advantages and resources within the network, organizations that engage in personal and external social network linkages, as advocated by Twum et al. (2021), can create value. This assertion is underpinned by the notion that organizations with an extensive social network stand to benefit from the maxim, "who you know is more important than what you know" (Luo, 2003). Entrepreneurs often find that their business operations, especially their innovative endeavors, are influenced by the quality of their relationships with peers, traditional authorities, and local public officials (Amankwah-Amoah et al., 2022). Such entrepreneurs may receive institutional support and assistance from these entities. In emerging economies where public authorities (such as government officials, local kings and chiefs, and local chiefs) often exert tight control over local resource allocations, cultivating relationships with these governing authorities may enable entrepreneurs to gain preferential access to market knowledge (Nasution et al., 2022). Additionally, it can be argued that

entrepreneurial firms with strong social network ties may significantly benefit from local advantages in terms of generating and disseminating local market intelligence, given that effective responses to local market needs are often viewed through a communal lens (Amankwah-Amoah et al., 2022). By leveraging the advantages of social network connections, business owners may enhance their market intelligence about their target markets. Strong social ties can provide entrepreneurs with "valuable access to resources and information as community leaders endorse the firm and its activities and refer it to their communities" (Acquaah, 2007, p. 1241). Acquaah (2007) argues that businesses should prioritize building institutional credibility in less developed markets. Strong social connections can help protect the investments of business owners in developing economies from potential environmental risks and enable them to seize new opportunities. SMEs rely on information and knowledge obtained through social networking ties to develop new products and services that resonate with society members and customers at large. The bonds and trust relationships formed through innovation can contribute to a positive image within the community. As a result, SMEs can develop stronger brand identities, influencing customers' inclination to engage their services. Thus, as suggested by Boso et al. (2017), social networking ties play a crucial role in enhancing innovativeness, which, in turn, leads to improved performance.

From the perspective of social capital theory, we posit that building strong social networking ties results in increased process and product innovativeness, thereby empowering organizations to acquire unique, rare, distinctive, and non-substitutable resources and capabilities. With these resources and capabilities at their disposal, organizations are better positioned to achieve superior outcomes. Furthermore, considering both the resource-based view and social capital perspective, we argue that the indirect impact of creativity on performance through process and product innovation is moderated by social network ties. This is because the firm resources generated through high levels of creativity, which drive process and product innovation, require the exclusive advantages

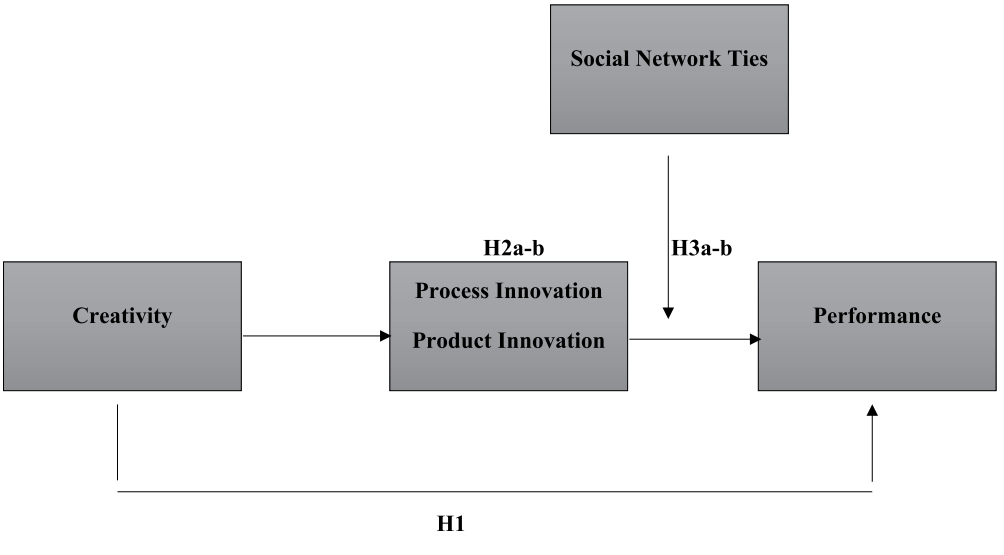

Figure 1. Conceptual framework.

derived from its network of relationships to translate into organizational performance. Thus, it is hypothesized that (Figure 1):

H3a: Social network ties positively moderate the relationship between process innovation and performance.

H3b: Social network ties positively moderate the relationship between product innovation and performance.

Methods

Context

We collected data on SMEs in Ghana to test the proposed hypotheses of this study since SMEs are ubiquitous businesses in Ghana. SMEs are considered the engine of Ghana's economic growth since the sector provides employment and income to a large percentage of Ghanaians and constitutes a significant source of output (Abor & Quartey, 2010; Boadi et al., 2017). SMEs account for 85-92% of all firms operating in Ghana and contribute about 70% to the Gross Domestic Product (GDP) of Ghana (Boadi et al., 2017). In Ghana, firms with 29 or fewer employees and 30–99 employees are classified as small and medium enterprises respectively. Additionally, these firms are often family businesses, sole proprietorships, and partnerships (Abor & Quartey, 2010). Contextually, SMEs in Ghana have similar characteristics, and thus, the study limited its scope to organizations based in Accra, Kumasi, and Tema because these three cities are considered the business hubs in the country. Despite the contributions of SMEs to Ghana's economy in terms of providing jobs and alleviating poverty, Ghana's business environment is characterized by weak administrative and legal institutions, weak law enforcement, and inadequate market-supporting institutions (Adomako & Nguyen, 2020; Saka-Helmhout et al., 2020), which compels firms to look inward for innovative and environmentally friendly strategies. Despite this, Ghana's business environment has weak administrative and legal institutions, poor regulations, weak law enforcement, and inadequate market-supporting institutions (Adomako et al., 2020; Saka-Helmhout et al., 2020), which compels firms to look inward for creative, innovative, and environmentally friendly strategies.

Data Collection Methods

We chose our sample from the databases of the Ghana Business Directory and Registrar General's Department (Aidoo et al., 2021). These two databases have a total of 25,000 registered firms, including 14,000 in the Registrar General's Department and 11,000 in the Ghana Business Directory. Guided by Krejcie and Morgan (1970), and consistent with previous research (Agyapong et al., 2017; Boso et al., 2013) in a similar environment we sampled 800 SMEs made up of 400 SMEs from the Ghana Business Directory database and 400 SMEs from the Registrar General's Department database and screened to ensure they met the criteria of at most 99 employees. According to the categorization of SMEs by Abor and Quartey (2010), small enterprises have between 2 and 29 employees while medium enterprises have between 30 and 99 employees. The sampled SMEs are based in three major cities in Ghana including Accra (Capital City), Kumasi, and Tema (Considered business Hubs in Ghana). We then contacted the 800 SMEs via emails and

telephone calls and asked for their consent to participate in the study. The respondents were assured of the anonymity of their responses and that their company information would not be used in any published document. Four hundred and fifty-five (455) SMEs agreed to participate in the study.

We took several steps to reduce problems of common method bias (CMB). First, in line with previous studies, we intermingled the item questions (MacKenzie & Podsakoff, 2012). Secondly, we collected our data in two phases (Malhotra et al., 2017) within a five-month period (October 2022 to February 2023). In the first phase, 455 questionnaires, covering creativity (independent variable), product and process innovation (mediating variables), and network ties (moderating variable) were dispatched to managers, directors, and owner-managers through either email or face-to-face administration. Out of this, 363 questionnaires were retrieved over four weeks in October 2022. During the second phase, we administered 363 questionnaires covering performance to Finance managers of the same firms, and 267 questionnaires were retrieved. However, 17 questionnaires were discarded because 11 finance managers doubled as CEOs, and 6 questionnaires were not completed, leaving 250 usable questionnaires for analysis. Therefore, the sample size used for the analysis was 250 with an effective response rate of 52.4%.

We recognize that there may be potential implications of data collection timing, such as seasonal variations or changes in external factors that may affect the responses. However, in this study, we observed that the independent (creativity), mediating (innovation), and moderating (network ties) variables remain relatively stable over time and were not subject to change. For example, network ties are conceptualized as culture, and so we should not expect variations in culture within five months. Therefore, collecting the data in two phases rather strengthened the validity and robustness of the results.

Non-Response Bias

By comparing early and late respondents (i.e. the first-month respondents and the fifth-month respondents of the surveys), we examined the data for non-response bias. We achieved this based on firm size, firm age, industry, organizational creativity, innovation, network ties and performance. We found no significant differences between the early and late respondents. Thus, non-response bias is not a significant issue in the data for the study (Armstrong & Overton, 1977).

Measures

Organizational creativity ($\alpha = .846$) was conceptualized as a two-dimensional construct, namely, novelty and usefulness adapted from Sue-Chan and Hempel (2016)). We measured both novelty and usefulness with four items each. The organizational creativity construct ($\alpha = .850$) was derived by computing the mean values of the novelty and usefulness items. All innovation dimensions and items were measured on a 7-point scale ranging from (1) "strongly disagree" to (7) "strongly agree". Innovation construct ($\alpha = .877$) was also conceptualised as a two-dimensional construct involving product innovation ($\alpha = .852$) and process innovation ($\alpha = .902$) adapted from Wang & Ahmed (2004). We measured performance construct ($\alpha = .915$) subjectively in this study using six items adapted from Huo (2012). All the performance items were measured on a 7-point scale ranging from (1) "much less" to (7) "much more". The social network ties

($\alpha = .840$) construct was adapted from Shane and Cable (2002) and was measured with four (4) items. The study controlled for three firm-specific characteristics, such as firm age, industry sector and firm size since they can potentially influence a firm's performance (Cheng & Yang, 2019; Sohn & Jung, 2010). Firm age measures the number of years the firm has been in existence (experience). Previous studies contend that the age variable can positively influence firm performance (Azamela et al., 2022). We measured firm size as a logarithmic transformation of the number of full-time employees working in the firm (Sheng et al., 2011). To determine if the sector in which firms operate has any influence on their performance, the study includes the industry sector as a dummy (e.g. 1 = if a firm is operating in the service sector and 0 = if the manufacturing sector). To obtain the interaction variables, the innovation (product and process) and the social network ties variables were centered or demeaned and the variables were multiplied. For example, the interaction of product innovation and social network ties was created by multiplying the centered variables of product innovation and social network ties. According to Aiken et al. (1991), centering the variables before interacting them reduces the possibility of multicollinearity among variables in the estimation process. When interaction terms (e.g. $X \times Z$) are included in regression models, the interaction term is highly correlated with the main effects (X and Z), leading to inflated standard errors and less reliable parameter estimates. Centering helps to mitigate this issue without altering the relationships among variables.

Demographic characteristics of respondents and the firms are reported on Table 1.

Results

Data Validity and Reliability

Validity and reliability tests were performed to assess the quality of the data using two data analysis tools, LISREL 8.50. The reliability test revealed Cronbach's alpha value greater than 0.70 for all the measurement constructs, indicating that the internal consistency between the construct and questionnaire items was good (Hair, 2013) (See Table 2). The validity test was measured based on two criteria; convergent and discriminant validity (Carmines & Zeller, 2012; O'Leary-Kelly & Vokurka, 1998). Convergent validity is generally assessed by the loadings of all the items, composite reliability (CR), and average variance extracted (AVE). The loadings of all the items were above 0.50, indicating high convergent validity. Also, the composite reliability of all the measurement constructs was greater than 0.6 and their AVEs were above 0.50, indicating a good reliability of this model (See Table 3). Discriminate validity requires that the square root of AVE of each measurement construct should be greater than their inter-construct correlation coefficient. The square roots of AVE of all five constructs were found to be higher than their inter-construct correlation. This suggests discriminant validity.

Following MacKenzie and Podsakoff (2012) and similar to Foltean et al. (2019), the study first conducted Harman's one-factor test, which revealed the total variance extracted by one factor was 23.51%, indicating the absence of common method bias. As a robust measure, the study additionally used the three-model approach to assess the extent of common method bias in the collected data. The first (trait) model estimated the fitness of the trait model, which measures the baseline of the study's variables with no

Table 1. Firm and respondents demographic characteristics.

Variables	Frequency (250)	Percent
Gender		
Male	68	27.2
Female	182	72.8
Respondent age		
18 and 19	1	0.4
20–30	27	10.8
31–40	123	49.2
41–50	73	29.4
51+	26	10.2
Current position		
Owner manager	126	50.4
General manager	35	14.0
Head of operation	32	12.8
Other senior management position	57	22.8
Education		
PhD	3	1.2
2nd Degree	12	4.8
1st Degree	86	34.4
Diploma / HND	65	26.0
SHS / A'level / O'level	59	23.6
Basic education	18	7.2
No formal education	7	2.8
Firm type		
Manufacturing firm	44	17.6
Service firm	206	82.4
Firm age		
20–30 years	39	15.6
31–99 years	78	31.2
100+ years	133	53.2
Number of employees (firm size)		
≤ 20	221	88.4
>20	29	11.6
Research department		
Yes	22	8.8
No	228	91.2

common method effect. The second (method-only) model assessed the fitness of the model where the study's observed variables were loaded onto a common method variable. Next, model three (method and trait) assessed the fitness of the model, including the trait and method loadings. The results in Table 4 show that model 1 (trait) and model 3 (trait and method) have a better fit compared to the method-only approach. This provided further evidence that the model was free of common method bias. Descriptive statistics are presented in Table 5.

Confirmatory Factor Analysis

Confirmatory Factor Analysis (CFA) (See Tables 2 and 6) was further conducted on the retained variables after the reliability and validity test. The CFA was done to examine the model fit of the measurement construct. The model fit for each construct was assessed after forming latent variables with the retained items using several fit indices (χ^2/df, RMSEA, CFI, NNFI, SRMR, GFI) and significance level. The overall CFA model fit produced excellent fit indices (χ^2/df = 1.091, RMSEA = 0.019, CFI = 0.992, NNFI = 0.989, SRMR = 0.031, GFI = 0.934).

Table 2. Validity and reliability of study constructs.

Construct/variables	Factor Loading	*t*-value	CR	AVE	CA
Innovation					
Process Innovation (PROIN)			**0.710**	**0.907**	**0.902**
Improvising new methods when you cannot solve a problem using conventional methods	0.83	Fixed			
Developing new processes to deliver products/services to customers	0.86	15.93			
Introducing new service delivery processes to add value	0.81	14.62			
Pursuing continuous improvement in operational processes	0.87	16.21			
Product Innovation (PRDIN)			**0.657**	**0.852**	**0.852**
Developing new products that enhance service to customers	0.86	Fixed			
Delivering cutting-edge services/products that are not delivered by competitors	0.79	13.83			
Promoting new product offerings	0.78	13.44			
Creativity (CRT)			**0.658**	**0.920**	**0.846**
Creativity (Novelty)			0.644	0.844	0.837
We normally have original ideas	0.74	Fixed			
We usually generate unprecedented solutions to problems	0.89	12.46			
Our solution to problems is often different from traditional ways of solving problems	0.77	11.66			
Creativity (Usefulness)			0.672	0.859	0.857
We focus on identifying adequate plans for the implementation of our new ideas	0.73	Fixed			
We often integrate multiple perspectives constructively	0.82	12.27			
We usually combine ideas in a constructive manner	0.90	12.39			
Social Network Ties (SOCNET)			**0.601**	**0.857**	**0.840**
I can obtain information about my industry from my network of contacts faster than competitors can obtain the same information.	0.71	Fixed			
I have a professional relationship with someone influential in my industry	0.87	11.71			
I have engaged with someone influential in my industry in informal social activity (e.g. playing tennis)	0.73	9.44			
Overall, I have a strong social network	0.78	11.05			
Performance (PERF)			**0.617**	**0.918**	**0.915**
The extent of flexibility in production/service delivery processes	0.86	Fixed			
The time it takes to serve customers	0.81	16.00			
The consistency in meeting the needs of customers	0.83	16.71			
The extent of variety in products/services offered to customers	0.82	16.39			
Resource utilization (e.g. human skills, time)	0.62	10.77			
Cost of production/operation	0.83	16.66			
The extent of product returns/service failure	0.70	12.73			

Model Estimation

We adopted the Hayes PROCESS macro in SPSS to estimate our research model, as it directly allows for testing the significance of the direct, indirect, conditional effect, and conditional indirect effects using the bootstrapping approach (Hayes, 2017). We relied on PROCESS model options 4, 1, and 14 to test all the hypothesized relationships in this study. Model option 4 was used to estimate the direct effect of (1) creativity on

Table 3. Inter-construct correlation of study construct.

Variables	Mean	STD	1	2	3	4	5
1. Creativity	3.676	1.192	**0.959**				
2. Process Innovation	4.169	1.475	.651**	**0.952**			
3. Product Innovation	3.696	1.479	.611**	.512**	**0.923**		
3. Social Network Ties	3.270	1.532	.527**	.425**	.446**	**0.926**	
4. Performance	4.778	0.924	.259**	.174**	.245**	.286**	**0.958**

**Correlation is significant at the 0.01 level (2-tailed).
*Correlation is significant at the 0.05 level (2-tailed).

Table 4. Common method bias test: common latent factor approach.

CFA model	χ^2	Df	*p–value*	χ^2/df	RMSEA	NNFI	CFI	SRMR
Trait Model	933.45	424	0.000	2.202	0.070	0.885	0.895	0.055
Method Model	2846.475	434	0.000	6.559	0.150	0.469	0.504	0.170
Method and Trait Model	1076.668	444	0.000	2.425	0.076	0.864	0.87	0.095

Table 5. Descriptive statistics and inter-construct correlation of variables.

Variables	Mean	STD	1	2	3	4	5	6	7	8
1. Firm age	2.696	1.081	1							
2. Firm type	1.827	0.379	−.060	1						
3. Firm size	1.128	0.380	−.003	−.160*	1					
4. Creativity	3.676	1.192	−.132*	.111	.275**	0.959				
5. Process Innovation	4.169	1.475	−.154*	.121	.179**	.651**	0.952			
6. Product Innovation	3.696	1.479	−.146*	.119	.134*	.611**	.512**	0.923		
7. Social Network Ties	3.270	1.532	−.002	.123	.282**	.527**	.425**	.446**	0.926	
8. Performance	4.778	0.924	.178**	−.024	.179**	.259**	.174**	.245**	.286**	0.958

**Correlation is significant at the 0.01 level (2-tailed).
*Correlation is significant at the 0.05 level (2-tailed).

Table 6. Model fit indices.

CFA model	χ^2	df	*p–value*	χ^2/df	RMSEA	NNFI	CFI	SRMR	GFI
Creativity	5.15	4	0.272	1.287	0.034	0.995	0.998	0.015	0.992
Process Innovation	3.00	2	0.223	1.500	0.045	0.995	0.998	0.010	0.970
Product Innovation	2.86	2	0.239	1.430	0.042	0.994	0.998	0.016	0.994
Social Network Ties	5.07	3	0.079	1.69	0.078	0.977	0.992	0.022	0.990
Performance	16.57	14	0.279	1.184	0.027	0.997	0.998	0.019	0.981
Overall	183.28	168	0.198	1.091	0.019	0.989	0.992	0.031	0.934

Note: χ^2, Chi-square; df, degree of freedom; RMSEA, root mean square error of approximation; NNFI, non-normed fit index; CFI, comparative fit index; SRMR, standardized root means square residual.

performance, (2) creativity on both process and product innovation, (3) innovation (process and product) on performance, and the indirect effect of creativity on performance through both process and product innovation. Model option 1 was used to estimate the interaction effect of social network ties on the relationship between both categories of innovation (process and product) on performance, and model option 14 was used to estimate the conditional effects of social network ties on the indirect relationship model. Each model was controlled with firm type, firm age, and firm size as covariates in the outcome variable. Table 7 presents the relationships of the study constructs.

Model Evaluation

We evaluated the model based on this study's hypotheses. Firstly, we hypothesized that creativity would positively affect performance (H1). The results of this study (Table 7) lend support for H1 by revealing a significant positive effect of creativity on performance (β = 0.135; CI = 0.017–0.253). The result further showed that a unit increase in creativity increases performance by 13.5%.

Even though not hypothesized, we tested for the relationship between creativity and innovation (process and product). The results showed a significant positive effect of creativity on process innovation (β = 0.805; CI = 0.688–0.923) and product innovation (β = 0.756; CI = 0.636–0.822), thus supporting our expectations. The results further showed

Table 7. Direct, indirect, and conditional indirect effect results.

Effect type	Paths	Effect	(Boot) SE	(Boot) LLCI	(Boot) ULCI
[1]Direct	Creativity→ Performance	0.135	0.060	0.017	0.253
	Creativity→ Process Innovation	0.805	0.060	0.688	0.923
	Creativity→ Product Innovation	0.756	0.062	0.636	0.882
	Process Innovation → Performance	0.006	0.051	−0.094	0.105
	Product Innovation → Performance	0.087	0.048	−0.008	0.182
[2]Indirect	Creativity→ Process Innovation→ Performance	0.004	0.043	−0.084	0.090
	Creativity→ Product Innovation→ Performance	0.066	0.036	0.002	0.145
	Total	0.201	0.048	0.107	0.295
[3]Conditional effect	Process Innovation→ (Process Innovation x Social Network Ties)→ Performance	0.056	0.025	0.006	0.106
	Process Innovation→ (Process Innovation x low Social Network Ties)→ Performance	−0.041	0.056	−0.151	0.068
	Process Innovation→ (Process Innovation x high Social Network Ties)→ Performance	0.130	0.058	0.015	0.244
	Product Innovation→ (Product Innovation x Social Network Ties)→ Performance	0.070	0.025	0.021	0.120
	Product Innovation→ (Product Innovation x low Social Network Ties)→ Performance	−0.033	0.061	−0.154	0.087
	Product Innovation→ (Product Innovation x high Social Network Ties)→ Performance	0.181	0.053	0.078	0.285
[4]Conditional Indirect	Creativity→ (Process Innovation x Social Network Ties)→ Performance	0.042	0.023	−0.002	0.088
	Creativity→ (Process Innovation x low Social Network Ties)→ Performance	−0.068	0.053	−0.176	0.034
	Creativity→ (Process Innovation x high Social Network Ties)→ Performance	0.061	0.056	−0.049	0.177
	Creativity→ (Product Innovation x Social Network Ties)→ Performance	0.051	0.021	0.013	0.093
	Creativity→ (Product Innovation x low Social Network Ties)→ Performance	−0.038	0.048	−0.132	0.057
	Creativity→ (Product Innovation x high Social Network Ties)→ Performance	0.119	0.046	0.035	0.217

Notes: **path significant at 5% (2-tailed test).
The number of bootstrap samples = 5000.
[3]Number of bootstrap samples = 100.

that a unit increase in creativity increases process innovation by 80.5% and product innovation by 75.6%. We further expected that both process innovation (H2a) and product innovation (H2b) will positively affect performance. The results showed a positive but insignificant direct effect of both process innovation ($\beta = 0.004$; CI = −0.084–0.090) and product innovation on performance ($\beta = 0.087$; CI = −0.008–0.182); thus, our expectations were not supported by the results.

Again, we hypothesized that both process (H2a) and product innovation (H2b) will mediate the relationship between creativity and performance. The results showed a positive but insignificant indirect effect of creativity on performance, through process innovation ($\beta = 0.004$; CI = −0.084–0.090), thus lending no support for H2a. This suggests that process innovation does not mediate the relationship between creativity and performance. However, the results showed a positive and significant indirect effect of creativity on performance through product innovation ($\beta = 0.066$; CI = 0.002–0.145), hence lending support for hypothesis H2b. This result suggests that the extent to which performance changes when creativity increases by a unit of mediator, product innovation, remained positive and significant. Therefore, product innovation partially mediated the relationship between creativity and performance.

Moreover, we expected that social network ties would moderate the effect of both process innovation and product innovation on performance. The results showed that social network ties positively and significantly moderated the relationship between process innovation and performance ($\beta = 0.056$; CI = 0.006–0.106). Also, this interaction effect revealed an R-square change of 0.018, indicating that social network ties accounted for a 1.8% change in performance. Additionally, this relationship was positive and significant at +1SD ($\beta = 0.130$; CI = 0.015–0.244) but was negative and insignificant at the mean (i.e. at 0SD) and at −1SD ($\beta = -0.041$; CI = −0.151–0.068). This suggests that the relationship was stronger at high levels of social network ties and weaker at low levels of social network ties. Similarly, the results showed that social network ties positively and significantly moderated the relationship between product innovation and performance ($\beta = 0.070$; CI = 0.021–0.120). This interaction effect revealed an R-square change of 0.028, indicating that social network ties accounted for a 2.8% added variation in performance. Moreover, this relationship was positive and significant at +1SD ($\beta = 0.181$; CI = 0.078–0.285) but was negative and insignificant at −1SD ($\beta = -0.033$; CI = −0.154–0.087). This suggests that the relationship was positive and stronger at high levels of social network ties and weaker at low levels of social network ties.

Lastly, we hypothesized that social network ties will moderate the indirect effect of creativity on performance, through process innovation (H3a) and product innovation (H3b). The results showed that the indirect effect of creativity on performance through process innovation was positive but insignificant, with an index of 0.042 (CI = −0.002–0.088), within the boundary of the conditions created by the introduction of social network ties. Additionally, this relationship was negative and insignificant at − 1SD (indirect effect = −0.068; CI = −0.002–0.088), and insignificant at +1SD, though positive (indirect effect = 0.061; CI = −0.049–0.177). Thus, the results lend no support to hypothesis H3a. However, the results showed a positive and significant indirect effect of creativity on performance through product innovation with an index of 0.051 (CI = 0.013–0.093) within the boundary of the conditions created by the introduction of social network ties. This relationship was also positive and significant at +1SD (indirect effect = 0.119; CI = 0.035–0.217) but was negative and insignificant at −1SD (indirect effect = −0.038; CI = −0.132–0.057). This suggests that the conditional indirect effect in this relationship was positive and stronger at high levels of social network ties but negative and weaker at low levels of social network ties. Therefore, hypothesis (H3b) is supported (Figures 2–5).

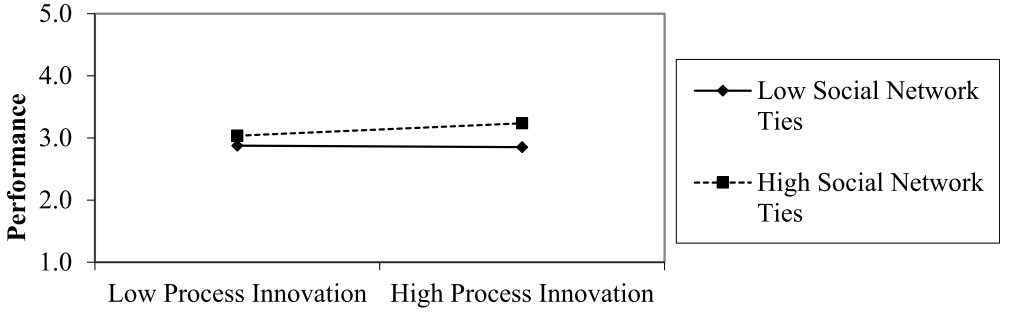

Figure 2. Conditional effect of social network ties on the relationship between process innovation and performance.

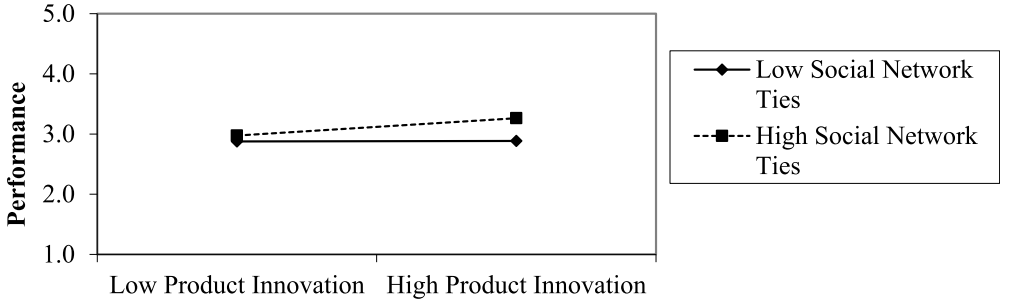

Figure 3. Conditional effect of social network ties on the relationship between product innovation and performance.

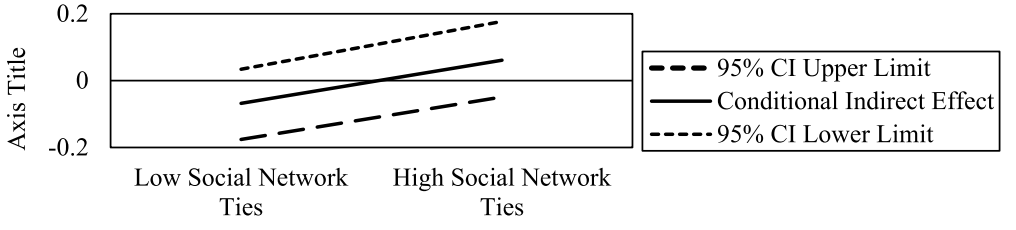

Figure 4. Conditional indirect effect of creativity on performance at values of the moderator social network ties through process innovation.

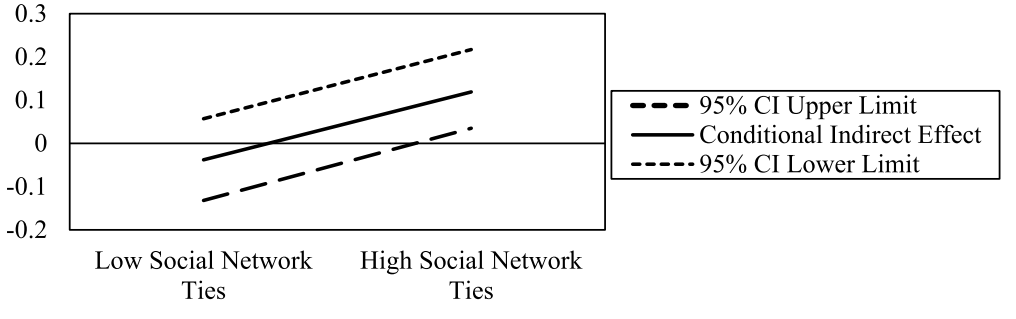

Figure 5. Conditional indirect effect of creativity on performance at values of the moderator social network ties through product innovation.

Discussion

This paper explored the mediating roles of process and product innovation in the relationship between creativity and performance. Additionally, the study examined how social network ties moderate the relationships between process innovation, product innovation, and performance. The findings shed light on various aspects of the complex interplay between these constructs. Firstly, the study revealed a positive and significant relationship between creativity and performance, thus providing support for Hypothesis H1. This result aligns with previous research (Boso et al., 2017; Sue-Chan & Hempel, 2016) that has also found a significant and positive correlation between creativity

and performance. The notion that creativity leads to performance is consistent with the idea that creativity can open new paths and opportunities for organizations (Anderson et al., 2014; Bharadwaj & Menon, 2000). From the RBV perspective, Chen et al. (2016) argued that creativity is an idiosyncratic resource that creates a competitive advantage and improves firm performance. Therefore, we argue that firms that invest in creativity by focusing on reducing costs, and improving efficiency can enhance financial performance (Shashi et al., 2019).

Moving on to the mediating role of process and product innovation, the study found that while product innovation partially mediates the relationship between creativity and performance (supporting Hypothesis 2b), process innovation did not serve as a mediator (contrary to Hypothesis 2a). This implies that creativity can have a direct impact on performance, but it can also influence performance indirectly through product innovation. This finding aligns with previous research indicating an indirect relationship between creativity and performance (Bornay-Barrachina & Herrero, 2018; Intasao & Hao, 2018; Saeed Mohamed et al., 2019). It suggests that creative SMEs in resource-constrained emerging economies can develop rare and valuable internal resources based on their organizational capabilities, consistent with the RBV theory. While creativity and innovation share some connection, they inhabit distinct roles. Creativity thrives on conceiving novel ideas or solutions. In contrast, innovation involves realizing and applying fresh products, processes, technologies, or business models to improve performance (Agyapong et al., 2024). Creativity engages in ideation and conceptualization, laying the groundwork for potential innovation. Conversely, innovation pivots towards realizing tangible outcomes and operationalizing alterations within the market or industry to advance performance objectives. As such, creativity establishes the foundation for generating original concepts, while innovation translates these concepts into practical solutions that serve as catalysts for generating economic returns (Agyapong et al., 2024) These dynamics position innovation as the conduit through which creativity influences financial performance.

The lack of significant mediation by process innovation corroborates with Agyapong et al. (2024) who found that green innovation does not mediate the relationship between green creativity and performance. By disaggregating innovation into product and process innovation, we found that only process innovation failed to mediate the relationship. Our findings thus highlight that although creativity is a valuable idiosyncratic resource for designing novel and practical ideas that result in processes innovation, the value inherent in this innovation is reliant on appropriate financial, technical, technological, and infrastructural investments, without which a firm's superior creativity efforts will be inadequate at driving competitive innovations required to enhance its performance. Gao et al. (2021) opine that SMEs in resource resource-constrained environment face several barriers, including lack of financial investment, institutional weaknesses, lack of training for SMEs, and lack of government financial support. These barriers make it difficult for SMEs to make use of novel and useful ideas to create innovations capable of generating economic rent. Accordingly, channeling creativity to enhance performance through innovation requires significant financial resources, government incentives, and institutional support systems, without which SMEs cannot significantly improve their competitive advantage and performance.

Lastly, the study examined the moderating effect of social network ties on the creativity-performance relationship through process and product innovation. While social

network ties did not moderate the indirect effect of creativity on performance through process innovation (not supporting Hypothesis 3a), they did moderate the indirect effect through product innovation. This moderating effect was positive and significant at high levels of social network ties (+1SD) but negative and insignificant at lower levels (−1SD). This suggests that social network ties can strengthen the indirect impact of creativity on performance through product innovation, particularly in settings with strong social ties, such as collectivist cultures. This finding is consistent with previous studies (Presutti & Odorici, 2019; Sedziniauskiene & Sekliuckiene, 2020; Wang et al., 2021) that have highlighted the moderating role of social network ties in the relationship between creativity and performance through product innovation. Collectivist cultures, like those found in emerging economies in Africa, Asia, and South America, emphasize relationships, collaboration, and interdependence. Strong social ties and support networks in such cultures can enhance the innovation-performance relationship more effectively than in individualistic cultures. This suggests that entrepreneurs in collectivist cultural contexts may benefit significantly from their social network ties in terms of product innovation and subsequent performance improvement.

Even though Ghana is characterized as collectivist culture, which focuses on relationships, collaboration, interdependence, and strong social ties and support networks, SMEs may have limited access to diverse and high-quality network connections that can leverage novel knowledge, technologies, or best practices to enhance process innovation. Moreover, SMEs in countries with strong cultural ties may form ties within close-knit, and redundant networks that do not focus on new or diverse perspectives required to translate creativity into innovative processes. For example, Taylor and Wilson (2012) argued that certain types of collectivist culture emphasize loyalty to family, friends, and one's immediate social circle. These types of culture not only harm innovation rates but may hurt progress in science. Taylor and Wilson (2012) add that collectivist societies tend to impede communication upwards through the social hierarchy, over-centralize authority, rely on rules and procedures over trust, and resist the radical social changes that often accompany innovation. Accordingly, collectivism may be detrimental to innovation when it results in local loyalties that encourage popular resistance to such national efforts.

Additionally, even if SMEs generate novel and creative ideas, inadequate financial resources, technological capabilities, and infrastructural constraints may inhibit their ability to implement innovative processes effectively to improve performance. Without adequate capital investment or skilled labor, creative ideas may not materialize into impactful innovations that drive performance improvements. The nature of network ties found among SMEs in developing countries may not be well-structured to support process innovation. Some of the network ties may focus on short-term survival strategies such as securing customers or accessing informal credit rather than long-term innovation-driven collaborations. Therefore, in an environment where network ties are used for transactional rather than strategic innovation, their influence on process innovation may be inhibited.

Theoretical Implications

The findings contribute to the strategic management literature on SMEs in an emerging market. First, the research adds to the extant literature that creativity and innovation

enhance SMEs' performance. The findings also provide empirical support for the viability and performance benefits of developing creativity and innovation to ensure sustainability in an emerging market.

Furthermore, literature has predominantly focused on the direct relationship between creativity and performance, and relatively little research attention has been devoted to understanding the intervening mechanisms. Our study suggests that product innovation mediates the creativity-performance relationship positively. Thus, our findings prove that the inclusion of innovation as an intervening variable corroborates existing literature, suggesting that both creativity and innovation are crucial elements (antecedents) for achieving improved overall performance and sustainability competitive power. Thus, creativity positively influences performance both directly and indirectly through innovation. The finding extends the view of the RBV theory to include other resources as passageways for the effects of creativity on performance. Thus, an initial resource gained as a result of being creative leads to the development of other resources like innovation, which translates into increased performance.

Moreover, the findings contribute to research on SMEs by revealing that the social network ties developed by SMEs are essential for SMEs that want to improve performance through creativity and innovation. Theoretically, our findings add to the creativity literature and provide a better understanding of the creativity-innovation-performance linkage. The inclusion of the interaction effect of innovation and social network ties corroborates previous research, suggesting that social network ties with innovation create an environment for knowledge sharing, dissemination of information, capabilities, and local resources leading to the building of creativity and innovation required for enhanced performance. Accordingly, this study significantly extends the RBV theory to emerging economies and fills a knowledge gap by providing evidence of the role of social ties in the creativity-performance relationship.

Managerial Implications

Findings from this study offer several important implications for SME owners and other practitioners. While extant literature offers several approaches to facilitating the performance of SMEs, this current research focused on the role of creativity and innovation in triggering performance. The study has revealed that SMEs that engage in creativity enhance their performance. This is a useful finding for both SME owners and new entrants, giving them a comprehensive insight into performance and competitiveness.

Basing our arguments on the resource-based view, creativity is considered an idiosyncratic firm resource that enhances performance through innovation; thus, managers should view innovation as the developmental and transformative process of converting and implementing ideas into valuable products, processes, and services. Hence, managers should motivate employees to be more novel and useful while maintaining a favorable environment. In terms of public policy implications, this study could be useful in informing policies that encourage creativity through innovation. Policies must support initiatives that foster innovation networks and specialized programs in creativity. As a result, platforms that provide access to information and collaboration among SMEs are required. In this regard, cloud computing is proven to be an intriguing option for SMEs (Gay & Szostak, 2019). Collaboration between the technical and traditional universities and

these SMEs will also be another source of networking to provide social exchanges needed for creativity and innovation.

Also, in line with our expectations, our findings suggest that the effect of creativity on performance via product innovation is higher when social network ties are stronger and vice versa. SMEs should build on their social network to develop their social capital and increase their organizational performance. One means is forming or joining associations for various sub-sectors to learn from each other. However, SMEs must be mindful of social ties that may be counterproductive to the success of the firms. Negative ties will decrease creativity, innovation and, ultimately, performance.

Limitations and Directions for Future Studies

Our research context, data gathering and analysis are subject to some noteworthy limitations that are intertwined with the future research directions. First, we used subjective measures of performance instead of objective measures. Even though objective performance measures would have been preferable, it was difficult to obtain objective performance information in an SME study in an emerging economy context, as was highlighted earlier in the data collection section. However, several studies have shown that subjective performance measures could be used as valid substitutes for objective performance measures when objective measures are not available or difficult to obtain (Wall et al., 2004). Additionally, Abernethy et al. (2013) point out that financial ratios derived from accounting data represent only short-term performance measures, but subjective measures commonly reveal long-term performance. Accordingly, we propose that future research must incorporate both objective and subjective measures of financial performance. Second, this study used cross-sectional analysis which creates the possibility of a bi-directional causal relationship and adds to the level of complexity of the results. We, therefore, recommend future studies embark on longitudinal studies to measure performance over time. Third, our study used a cross-sectional design, which does not draw cause-and-effect relationships between creativity variables and performance. However, we may rule out reverse causation from the findings because it is very difficult to argue that firm performance is related to the combined effect of social network ties on creativity through product and process innovation. Fourth, since Our sample was limited to only SMEs in Ghana, our ability to generalize the findings is limited and, therefore, must be done cautiously. Even though SMEs in Africa are homogeneous, such as the similarity in the economic and institutional environment, we suggest that future studies should examine these relationships in other transition economies, especially in other African countries, to deepen our understanding of how SMEs use creativity to improve performance through innovation under the boundary conditions of network ties.

Conclusion

The study sought to assess the effect of creativity on performance, examine the mediating roles of process and product innovation in the creativity-performance relationship, and then assess the moderating role of social network ties in the relationship between process innovation and performance and also between product innovation and performance. Four of the hypotheses were supported in the study. We therefore conclude that to

increase performance and improve competitiveness, SMEs in emerging countries must engage in creativity and innovation. Moreover, SMEs in emerging economies must take advantage of their positive social network ties to have a positive impact on their innovation and their level of performance.

Disclosure Statement

No potential conflict of interest was reported by the authors.

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