

ENTREPRENEURSHIP EDUCATION, ENTREPRENEURIAL MENTORSHIP AND SME PERFORMANCE: THE DEVELOPING ECONOMY PERSPECTIVE

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Abstract

Concerned by the growing irreconcilable arguments about the link between entrepreneurial education (EE) and SME performance, and the moderating role of entrepreneurial mentorship (EM), the study investigates the relationship between EE and SME performance and role of EM in this relationship. A survey research design was employed and data was collected from 78 Managers or Owners of SME who are versed in the operation of their business through self-reported questionnaire designed in five points Likert scale. The data collected was descriptively analyzed and hypotheses tested using Hayes Macro Process Model v1 to test the moderating role of EM on SME performance. The study discovered first, a significant influence of EE on SME performance, and second, that EM moderates the relationship between EE and SME performance. The study therefore concludes that EE, EM, and performance of SME are significantly related, and that giving attention to both EE and EM is likely to change the narratives of poor performance of SMEs. Based on the findings, the study recommends that in designing to achieve the best from EE, government should increase time for learning through EM and reduce theory laden EE to 30:70 in favor of EM. Secondly, entrepreneurs should be exposed to industrial training where they can marry class room theory with actual business environment in real time. This will enable entrepreneurs relate theory with practical demands of managing SMEs.

Keywords: Entrepreneurship Education, Entrepreneurial Mentorship, Performance, SMEs, Developing Economy.

Introduction

Entrepreneurship is the engine of growth of nations and communities (Mahmood et al, (2021; Kyari, 2020; Linton & Clinton, 2019; Ndofirepi, 2020). SMEs globally are the driving force that powers the vehicle of employment, economic growth, poverty reduction, engineer innovation and market creations (Richard et al, 2025; Abdullahi & Adeyemi, 2020; Malesios et al, 2018; Minal et al, 2018). Nations with many entrepreneurs lead the pace of economic growth and development ((Agwu and Emeti, 2014; Otache, 2024). Thus, entrepreneurial

performance is of paramount interest to nations both developed and developing alike. Entrepreneurship education (EE) provides the needed skills, Knowledge (Alkali & Musa, 2020) that enhances the ability of entrepreneurs to contribute to the economic development of Nations through superior performance. Thus, continued performance of entrepreneurs is partly based on the quality of EE that are available to the entrepreneurs.

Around the world, entrepreneurship education training (EET) has been acknowledged as playing a significant role in the transformation of agrarian communities and societies into an industrial society (Arruti & Panos-Castro, 2020; Ndofirepi & Ngozi, 2016; Mensah-Williams & Derera, 2023) through skill development. It is with the understanding that entrepreneurial education (EE) provides entrepreneurial reservoirs for the nation that attention of government has been refocused to building capacities for the entrepreneurs through education (Arend et al, 2025; Kuratko, 2005; Rauch & Hulsink, 2015; Suguha et al, 2025). EE plays a pivotal role in turning entrepreneurial mediocre into top performers. However, from available literature, the situation is moving in the opposite direction. While careers in entrepreneurship has plummeted aided by investment in EE, it was argued that (Rideout & Gray, 2013), SMEs have consistently witnessing monumental failure rates occasioned by poor performance (Machirori & Fatoki, 2013; Minai et al, 2018) suggesting that even though the investment in EE and training increased in magnitude and scope over the past decades, the quality and quantity levels of SMEs have not increased (Richard., Unai & Richard, 2025.) Government investment in EE has doubled each year resulting in increasing numbers of people that have been trained to acquire EE, yet, the number of SMEs start-up each year has fallen drastically in the last two decades (Richard, Unai & Richard, 2025). Ndala, 2019 and OCED, 2018 have argued that government investment in EE is not worth it and Kavita, 2020; Duval-Couetil, 2013 submitted that EE has not been able to account for the contribution made by government on it. This calls for concern. So many entrepreneurial businesses are folding up and that only 20% of SMEs survive is alarming (Olaore et al., 2020); suggesting that EE offered at the various institutions of learning may have not yielded a desired effect.

Globally, empirical studies have link EE with SME performance. These studies showed mixed results (Amah, 2024; Vallabh & Mhlangh, 2015; Caiazzu & Vope, 2016; Kirkley, 2017; Inegbedim, 2019). In Nigeria, while few studies exist that examine the relationship between EE and SME performance, studies that investigate the moderating role of EM in this relationship is rare. Equally, studies that examine the effect of EE on SME performance especially in Nigeria are riddled with conflicting findings (Ahmad, Chandra & Klobos, 2017; Bello & Mattaunu, 2018). There is a need therefore to re-examine the relationship between EE and SME performance. A gap this study fills. In addition, study that examines the moderating roles of EM in the relationship between EE and SME performance is rare if non-existence especially in an emerging economy like Nigeria. This is also a gap that this study intends to fill. The understanding of the nature of relationship that exists between EE and SME performance and the moderating role of EM in this relationship is important to guide entrepreneurs and government to balance their mix of investment on entrepreneurial theory through education and hand-on practical knowledge through mentorship. Over concentration on theory by government without corresponding attention to practical hand-on experience may have reduced the efficacy of government investment in EE.

The objectives of this study therefore are three folds: to examine the influence of EE on SME performance and second to determine the effect of EM on SME performance and thirdly to investigate if EM moderates the relationship between EE and SME performance.

The study contributes to the existing literature in many ways. One, to the best of the authors' knowledge, this study is one of the rare studies that attempt to provide empirical evidence of the moderating role of EM in the relationship between EE and SME performance in the context of an emerging economy such as Nigeria. Also, the study contributes to empirical as well as conceptual literature in the discourse on the relationship between EE, EM and SME performance in emerging economies.

It is on the backdrops of the foregoing that this study draws on resource based view and social capital theory to explain that education creates valuable internal resource (knowledge) which enhances the skills and capability of entrepreneurs for superior performance, and EM create external resources which complements education and make it functional. Mentorship translates theories learnt from education and makes it functional through practicalizing the theory. Thus, this study argues that for SMEs to perform better, it needs a mix of education and mentorship to blend the theory with practical. While education sharpens the skills, knowledge and capabilities of entrepreneurs, mentorship bring to bear experience, networking, identify opportunities, anticipate challenges and implement best practices that drive business growth (Bilal & Bilal, 2025).

Theoretical and hypotheses development

Resource based view theory and social capital Theory

Today's business environment is competitive and it is survival of the fittest. To succeeds, SMEs must possess resource advantage such that is inimitable, non-substitutable, and rare (Audu et al, 2025; Otache, 2024). EE is one means through which entrepreneurs acquire strategic knowledge to drive their business. This study submits that EE as represented by intellectual capital provides an intangible resource for entrepreneurs to leverage upon to achieve superior performance (Otache, 2023; Exposito and Sanchis-Llopis, 2018). On the other hand, mentorship is an external resource which provides network for entrepreneurs as relational capital. The mentor provides hand-on learning experience to the mentee (would-be entrepreneurs) which builds and strengthens resilience, confidence, and entrepreneurial mindset (Bilal & Bilal, 2025). To that extent, EM becomes a veritable resource for entrepreneurs which can be leverage on to achieve competitive advantage and superior performance (Guo and Cao, 2014; Herhausen et al., 2020). The resource view and social capital theory view are relevant to this study because education provides quality workforce that gives entrepreneurs competitive advantage to improve and excel in the market place while mentorship provides network of relations that are beneficial to managers of SMEs.

Hypotheses Development

EE and SMEs performance

EE according to Arend et al, (2025) involves formal courses and training with content specific to entrepreneurship, delivered through recognized school, college or online. In the same vein, Dokubo & Akoku, (2022) submitted that EE is a process of training students at all levels to acquire resourceful skills to enhance productivity and gain self-reliance. The two definitions above have point to one thing- training to acquire sustainable skills. EE has been widely acknowledged as strategic instrument that can be deploy to strengthen SMEs (Nilawati; Pudji & Anna, 2026). Same view was held by Minai (2018) when the author submits that EE generates competencies that help enhances firm performance. EE builds

business formalization, innovation adoption, and value chain integration (Nikmatullah & Adnan, 2025; Sakib et al, 2022; Soomro et al, 2024, Nilawati, et al, 2026).

EE is a multidimensional concept and it is relatively an evolving concept (Vallabh & Mhlanga, 2015; Watho & Chaudhry, 2018; Thah, Robert, Clinic, Stryeberg, Deta, Kent, Analytics, 2020). Hence, no universally acceptable theory of the phenomenon has been reached. Authors on the subject use diverse variables (Amah, 2024) to explain the concept EE. However, in this study EE variables as conceptualized by Arasti, et al, 2012; Olakundu, 2017; Andah et al, 2019 which include curriculum content, teaching methodology, and institutional support would be adopted. EE curriculum is a comprehensive module that contained the relevant knowledge to be taught in a course or a program (Olakundu, 217; Andah, et al, 2019). It is the compass that leads learners in program instruction (Anene & Imam, 2016). Basically, curriculum contains what students needed to study to prepare them toward acquiring a specific skill, knowledge and abilities in a random order. Entrepreneurial curriculum contents should primary contains general business knowledge, market analysis, financial literacy, leadership skills, risk taking skills, administrative skills, how to covert conceivable ideas into opportunities, and new venture including new start-up learning and skills (Olakundu, 2017; Chinweoke et al, 2015; Andah, et al, 2019). A well developed and delivered curriculum strengthens entrepreneurial performance of firms (Alkali & Musa, 2020; Nilawati; Pudji & Anna, 2026). Same view was held by Minai (2018). Teaching methods is a generic term used to describe a style adopted by an organization to advance knowledge to learners in enterprise education so as to achieve success (Hill, 1988). It entails methods employed to transfer and impact knowledge to would-be entrepreneurs. The efficacy in the transfer of this knowledge is vital to EE. Institutional support represents University supports for a business start-up to advance the needed coaching and other requisite preparation necessary to achieve motivated young entrepreneurs for the society (Pamela, 2017; Andah, 2019). It is a pragmatic step taken to ensure a favourable environment that supports innovativeness, capacity development of people (Poblete, & Amoros, 2013). Innovative firms stand tall in the market place relative to competitors and thus superior performance.

According to Hussaini and Muhammed (2018) and Otache, (2023) SME performance is its ability to survive, grow, expand and meet its obligations efficiently and profitably. Firm performance shows whether or not a business is achieving its objectives or making progress (Otache, 2023). Evidences from past studies show that EE improves Managerial practices of SMEs and networking (Abdul, et al, 2023; Amani et al, 2024) thus improve SME performance. EE facilitates knowledge and skills transfer that improves entrepreneurs' ability to recognize viable opportunities, galvanizing resources and face market and environmental dynamics with high level of confidence (Nilawati, et al, 2026) and precision. EE has been widely researched in the last two decades. And various studies have come to term that EE is instrumental to firm well-being and success (Nilawati et al, 2026, Minai et al, 2018; Alkali & Musa, 2020, Arend; Unal & Bilodeau, 2025; Mahmood et al, 2021). In the light of the resource view and human capital theory, the study argues that EE is a dynamic resource that enhances SME performance. Based on the above premise, it is hypothesized that:

H1: EE has a significant relationship with SME performance

Entrepreneurial mentorship and SME performance

EM is strategic, and the construct is an age long one (Egwu, 2012; Agbionu et al., 2019; Egolum, 2019). It is a set of tailor-made advice by a mentor to a mentee in an innovative

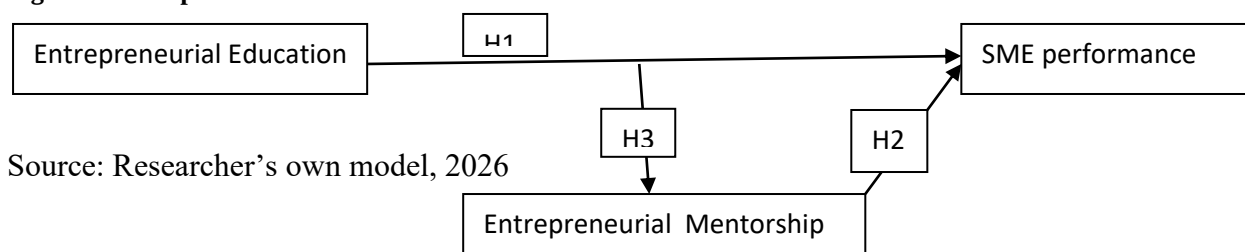
manner (Bilesanmi, 2013) based on a range of competencies. Mentoring is a closed developmental relationship between the mentor and the mentee for the transfer of experience, knowledge, skills in all area of business (Okurame, 2013). Mentoring is a transactional process through which relevant information, advice, support, and expertise from the mentor are transferred to the mentee. Mentorship enhances career, deepen professional development, building as well as maintaining a professional network, increasing competence, and self-esteem (Anekwe, et al, 2019). Corroborating the work of Anekwe above, Schooley and Vitti (2010) held that mentoring enhances professional growth. The mentor sharpens the coaching, leadership and communication skills of the mentee which they in turn apply in their daily business. Mentorship, it was held, improves mentee management skills as they learn through action (Anekwe , 2019). It bridges the gap between class room theory and practical application of knowledge on the field. Entrepreneurial mentorship from past studies has shown to have significant positive influence on business firm performance (Adudu etal, 2022; Anekwe , 2019; Agbionu et al, 2019; Obesi & Okeke, 2013). Business mentorship equips the mentee with business knowledge and experience which cannot be acquired from the class room thus bridge the gap between theory and practice. Studies have shown that an entrepreneur who passes the tutelage of mentorship stands to excel over and above the non-mentees (Anekwe , 2019 and Agbionu, et al, 2019). From the foregoing, it is hypothesized that:

H2: Entrepreneurial mentorship has no relationship with SME performance.

Entrepreneurial mentorship (EM) is critical to mentee's practical knowledge (Anekwe, 2019) of the business and therefore bridges the gap between class room theory and practical knowledge. Although EE provides entrepreneurs with theoretical knowledge of business, the practical application of such theories learnt in the class room stand against entrepreneurial success and failure. This gap has partially accounted for why government effort at encouraging and investment in EE seems not to have yielded the desired result (Kavita, 2020; Duval-Couetil, 2013). Past studies have emphasized the importance of EM in providing needed experience; skills, networking, and resilience (Okurame, 2013) that mentees needed to succeed in the world of business. Studies abound that espoused that entrepreneurs that pass through mentorship has greater chances of success and doing well in business (Anekwe, 2019; Andah, et al, 2019; Egwu, 2012; Agbionu et al, 2019; Egolum, 2019) than those that does not have mentorship experience. Anekwe (2019) was so emphatic about the need for mentorship resulting from the crumbling of businesses due to the gap between theory and practice. From the foregoing, therefore, the study hypothesized thus:

H3: EM moderates the relationship between EE and SME performance

Figure 1 Conceptual framework



Source: Researcher's own model, 2026

Materials and Methods

Sample and procedure

The sample consisted of 78 managers/owners of selected manufacturing SMEs firms from Nigeria. The study of SMEs is critical and germane because of the significant roles of the manufacturing subsector to the economy of Nigeria. The subsector accounts for more than 50% of employment and contributing immensely to the Nation's GDP (Otache & Usman, 2024; Agwu & Emeti, 2014). In specific, the manufacturing sector is one of the critical subsectors of the economy of Nigeria. The sector contributed about 70% to the gross domestic product in the first quarter of 2023 (Otache & Usman, 2024; National Statistics of Bureau, 2023). Thus, the study examines factors that improve the performance of the subsector is very important. The study adopted a convenience sampling technique because of the difficulty of obtaining a comprehensive list of all manufacturing SMEs in the country to perform a random sampling procedure. This method is in line with previous studies such as (Otache & Usman, 2024 pp8). The study in line with Otache & Usman (2024) adopted a survey research design and collected data from SME managers or owners who were verse on the operations of SMEs using questionnaire. The questionnaire was personally administered, and the participants were assured of anonymity of the information they volunteered. Questionnaire administration and collection took four months.

The study used a quantitative approach and performed mediation analysis to test the proposed hypotheses using Hayes' PROCESS macro v1. The PROCESS macro "simplifies the implementation of moderation analysis. Hayes et al. (2017) argued that for models that are entirely based on observed variables, it does not matter whether the researchers use PROCESS macro or structural equation modeling because the results will not be significantly different (Oache & Usman, 2024).

More so, out of the 78 SMEs examined, 15 (19.2%) were less than 10 years old, 13 (16.7%) were between 10 and 20 years old, 10 (12.8%) were between 21 and 30 years old and 8 (10.3%) were more than 30 years old. Also, 6 (7.7%) of them had between 10 and 20 employees, 11 (14.1%) had between 21 and 50 employees, 7 (9%) had between 51 and 100 employees, 5 (6.4%) had between 101 and 150 employees and 3 (3.8%) had between 151 and 200 employees. The study adopted a survey research design and collected data from 78 SME managers or owners who were versed in the operations of their businesses using a self-reported questionnaire. The questionnaire was personally administered, and the participants were given the assurance that information volunteered will be treated confidentially and their anonymity will be guaranteed. The study used a quantitative approach and performed Hayes process macro mediation analysis. To ensure validity and reliability of the instrument used, the study performed factor analysis tests. The unit of analysis is the firm.

Variables and measures

The items used to measure the study variables were adapted from previously validated scales. The study used a five-point Likert scale, where 1 represents "strongly disagree" and 5 represents "strongly agree." The independent variable EE is operationalised as multidimensional and unidimensional. In other words, the study investigates the impacts of EE dimensions (curriculum, teaching methods and institutional support) and their aggregate score on SME performance. The mediating variable EM and the dependent variable (SME performance) were measured as unidimensional variables. The control variables adapted from Otache & Usman, (2024: pp8) "which were firm age and size was used. Firm age was

measured by how long an SME had been operating: 2 ^{1/2} less than ten years, 3 ^{1/2} 10–20 years, 4 ^{1/2} 21–30 years and 5 ^{1/2} more than 30 years. Also, firm size was measured based on the number of employees: 2 ^{1/2} 10–20 employees, 3 ^{1/2} 21–50 employees, 4 ^{1/2} 51–100 employees, 4 ^{1/2} 101–150 employees and 5 ^{1/2} 151–200 employees” was used. The items measuring the variables and their sources and the validity and reliability coefficients of the scales are presented in Table 1. The results showed that the scales were valid and reliable. The Cronbach’s values for the variables were higher than the recommended 0.70 (Hair et al., 2014).

Common method bias

This study performed Harman’s single-factor test to ascertain that data collected did not suffer from common method bias (CMB) (Podsakoff et al., 2003; Otache & Usman, 2024). The results indicated that a single factor did not emerge. From the three-factor solution that revealed a total variance explained as 41%, 63%, and 83% for the first, second and third factors respectively indicating that there was no CMB case.

Table 1

Variables/Items	Reliability and validity coefficients	Loadings	Cronbach’s
Entrepreneurial Education Adapted and modified from (Singh, et al, 2023; Fiernaningsih, et al, 2026)			
• The training I received has improved my entrepreneurship skills	Entrepreneurship	0.767	
• Entrepreneurship training has enhanced my critical thinking and problem solving skills	Entrepreneurship	0.914	
• Entrepreneurship training has unlocked new opportunities for me in creating a new business model	Entrepreneurship	0.826	
• Entrepreneurship training has enhanced my problem solving skills	Entrepreneurship	0.846	
• Entrepreneurship training has enhanced my information management ability	Entrepreneurship	0.772	
• Entrepreneurship training has enhanced my teamwork skills		0.662	
		0.893	
Entrepreneurial Mentorship(Abdulrahaman et al, 2022; Berk et al, 2005)			
• Give clear direction for assignment	Challenge	0.795	
• Challenge me to think in ways I have never thought of before	Expects me	0.743	
• Expects me to take critical feedback without being defensive	Questions	0.841	
• Questions and make me justify the decision I make	Demonstrates	0.787	
• Demonstrates professional integrity	Gives clear	0.767	



explanation and presentations	0.821
• Encourages me to get involved in additional projects that normally I would not do	0.891
SME performance (Abeysekara et al., 2019; Otache & Usman, 2024)	
• We have a high market share growth	0.767
• We have a high sales growth rate	0.782
• Our products command a significant share of the market	0.893
• We have a high profit margin on sales	0.828
• We have a high return on sales	0.752
	0.758

Sources: Author's computation

Testing of Hypotheses

Table 2

Model : 1
Y : SMEPC
X : model1
W : model2

Sample
Size: 78

OUTCOME VARIABLE:
SMEPC

Model Summary

R	R-sq	MSE	F	df1	df2	p
.5275	.4073	.1985	2.9643	3.0000	74.0000	.0375

Model

	coeff	se	t	P	LLCI	ULCI
constant	4.9564	1.2930	3.8332	.0003	2.3800	7.5329
model1	1.0667	.6779	1.5734	.1199	.2841	2.4174
model2	.6784	.3014	2.2505	.0274	1.2791	.0777
Int_1	.0387	.0147	2.6337	.0103	.0094	.0679
Interact	.0145	.0193	.7496	.4559	.0530	.0240

Product terms key:

Int_1 : model1 x model2

Test(s) of highest order unconditional interaction(s):

R2-chng	F	df1	df2	p	
X*W	.0837	6.9362	3.0000	74.0000	.0103

Focal predict: model1 (X)
Mod var: model2 (W)

Conditional effects of the focal predictor at values of the moderator(s):

Model2	Effect	se	t	p	LLCI	ULCI
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22.7943	1.9483	.9611	2.0271	.0463	.0332	3.8634
29.0000	2.1883	1.0435	2.0970	.0394	.1090	4.2676
30.0000	2.2270	1.0569	2.1070	.0385	.1210	4.3330

Level of confidence for all confidence intervals in output:

95.0000

In testing the hypotheses, a moderation analysis using PROCESS Model v1 was conducted. The result showed the combined effect of EE and EM to have a significant effect on SME performance where $R^2 = .5275$, $F(2.9643, P = 0.0375 > 0.05)$; $F(3, 74)$. The test of the highest-order unconditional interaction was significant, $R \text{ change} = 0.0837$, $F(1, 74)$, $P = 0.0103 < 0.05$. Thus, there was evidence that EM moderates the relationship between EE and SME performance. The results as shown in table 2 above revealed that EE has significant effect on SME performance where $R \text{ square}$ is 0.6784 , $P 0.0274 < 0.05$ and that EM moderate the relationship between EE and SME performance, where $R^2 \text{ change}$ is 0.0837 . $F(3, 74)$, $P < 0.05$ indicating that about 8.4% of change in SME performance is accounted for by the moderation role of EM. This finding corroborates studies by (Richard, Unai & Richard, 2025; Riedout & Gray, 2013; Fiet, 2000; Weaver et al, 2006). Equally, EM contributes to SME performance with the coefficient of $.0387$, $P .0103 < 0.05$. This finding also is in alignment with previous studies such as Adudu et al, 2022; Anekwe, 2019; Agbionu et al, 2019; Obesi & Okeke, 2013). The control variables firm age and size has no significant influence on the dependent variable (SME performance) $R = 0.0145$, $P = 0.05 < 0.4559$ indicating that firm size and age together does not influence SME performance. This finding corroborates with the finding of Otache & Usman, 2024).

Conclusion and Recommendation

Conclusion

Drawing on resource base and human capital theory, the study explores the nexus between EE and SME performance and the moderation role of EM in this relationship in an emerging economy like Nigeria. The hypothesis of the study was tested using Hayes PROCESS macro model 1. The findings of the study revealed that EE has a relationship with SME performance, and that EM does moderate the relationship between EE and SME performance. The finding is in agreement with previous related studies of Nilawati et al, 2026, Minai et al, 2018; Alkali & Musa, 2020, Arend; Unal & Bilodeau, 2025; Mahmood et al, 2021).

Based on the above findings, the study concludes that EE do have an influence on SME performance, and that EM moderates the relationship between EE and SME performance. In general, this study by its finding joins other previous studies to conclude that EE and EM do influence SME performance.

Implications

Practical implications

The findings have implications for practicing entrepreneurs and government. This study demonstrates that EE has a relationship with SME performance and moderated by EM. This findings call for government to balance EE programs with EM. This will enable learners relate the impact of EE to EM and SME performance through the application of theory so as to aligns theory with business reality. Class room learning which is based on theory and real

business world are two different things. The application of theory learnt in a class room context and its implementation in practical business environment context is not the same.

Theoretical implications

The findings also have theoretical implications. First, the study validates the resource-based view and social capital theory. The theory argues that EE and EM are relational capital which entrepreneurs can access through EE and EM leading to building valuable skills and networks that can improve performance.

Second, the findings of this study provide empirical evidence of the moderating effect of EM on SME performance. The findings imply that the positive impact of EE and mentorship on SME performance cannot be explained through the lens of EE and mentorship alone indicating that there are myriads of environmental variables that accounts for SME performance aside EE and EM. The findings undoubtedly enrich the existing literature on EE and EM and SME performance.

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