



Formal Fashion Education and Business Performance: An Exploration of Small-scale Fashion Designers in Ghana

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Authors' contributions

This work was carried out in collaboration between all authors. Author NAA designed the study, performed the statistical analysis, wrote the protocol, and wrote the first draft of the manuscript. Authors JAZ and AG evaluated the study including the analyses. All authors read and approved the final manuscript.

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ABSTRACT

Aims: This study explored the impact of formal fashion education on business performance among small-scale fashion designers in Ghana.

Study Design: This research adopted a survey design approach.

Methodology: Drawing upon Human Capital Theory (HCT) and using data collected from a survey of 398 small-scale fashion designers in Ghana, we employed a Partial Least Squares Structural Equation Modelling (PLS-SEM) to examine the relationships between formal education, business size, and business performance.

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Results: The findings indicate a significant positive relationship between formal education and business performance, suggesting that education plays a pivotal function in enhancing the performance of small-scale fashion designers. However, the study did not discover a significant relationship between formal education and business size, suggesting other factors, such as access to capital and market opportunities, may be critical for business expansion.

Conclusion: These findings have critical implications for policymakers, stakeholders, and industry practitioners in the fashion industry, particularly in Ghana.

Keywords: Business performance; fashion SMEs; formal fashion education; Ghana.

1. INTRODUCTION

The World Bank acknowledges that education is a critical driver of growth and advancement. Higher education-level nations are better equipped to face new challenges and master technological discoveries. In Sub-Saharan Africa (SSA), including Ghana, educated human capital remains scarce compared to the continent's development needs. This hinders progress and undermines the foundation for sustainable development [1]. Thus, policymakers must ensure that their workforce acquires the education to compete, innovate, and respond to the complex social, environmental, and economic situations around them [1].

In discoursing industrialization, contributions of Small and Medium-sized Enterprise (SMEs) are frequently ignored, with much consideration given to large-scale Enterprises. Nevertheless, SMEs are imperative for emerging economies as they are the influential engine of economic growth, job creation and poverty reduction [2,3,4]. Thus, SME-led economic growth is progressively becoming the hallmark of economic prosperity as well as overall well-being in many countries [3,5].

The significance of the SME sector is acknowledged globally owing to its momentous contribution to meeting as well as stimulating various socio-economic goals, including employment generation and fostering entrepreneurship. Recent empirical studies demonstrate that SMEs contribute well above 55% of GDP and over 65% of total employment in high-income countries. SMEs further constitute over 60% of GDP and well over 70% of total employment in low-income nations, while they contribute over 95% of total employment and approximately 70% of GDP in middle-income countries [5].

In Ghana, SMEs are the backbone of the Ghanaian economy, representing approximately 85% of businesses and contributing

approximately 70% of Ghana's Gross Domestic Product (GDP) [6]. Notwithstanding the contribution of SMEs towards the development of nations, there are several issues that the sector is saddled with. Crucial among such issues is the fact that most small-scale entrepreneurs do not have the required or adequate education or training that will place them in a better condition to excel in their businesses [7,8,9]. This status quo frequently translates into poor business and management practices that do not support the development of small-scale businesses.

Thus, the function and importance of SMEs in the Ghanaian economy have been the topic of increased attention, mostly from the 1990s till now. One of the several reasons for this focus has been the certainty that a strong SME sector is vital to the performance of any economy and can, therefore, be viewed as an engine of growth and, thus, synonymous with economic success for the economy. SMEs are acknowledged as the mainstay and industrial hob for development in nation-building.

However, in most developing countries, numerous new ventures are formed, but an almost equal number of these new businesses fold up or die. Studies suggest that approximately half of all new businesses fail within the initial three (3) years, and between 15% and 20% do not last a year [10,11]. The question remains of what factors precisely account for this worrying phenomenon. Globally, it is acknowledged that an educated and skilled labour force is essential to the success and growth of the small business [12,13,14,15,16,17] and also critical to achieving a competitive advantage in a global economy. It has similarly been recognized that education is an effective way of plummeting SME failure [18,19,20].

Regardless of the nexus between education and SME success, a minimal empirical investigation has been done [21]. This informed the current study to assess formal education in fashion and its impact on business performance using small-

scale fashion designers in Ghana as a case. [22] argued that small business failure almost always stems from inadequate training and development. Some studies have also found that the key distinctive features between high growth and low growth in small firms were the education and experience of managers [23,24,11].

Another issue, more substantial and consequently more challenging to resolve, is whether such studies truly measure the effect of education on productivity or, rather, the result of talent. [25] found that the level of education of owners/managers has no significance on the performance of SMEs. This, according to them, is because, contrary to the status quo in specialized areas such as medicine, law, engineering, consulting, etc., education is not a needed requirement or a common characteristic of owners/managers.

In [26] view, the issue of owner/managers' education may be linked to the nature of the business in which they are involved. Consequently, education is not expected to have a substantial consequence on performance. These varied assertions indicate that SME owners/managers differ significantly in education level. Some successful SME owners/managers are exceptionally educated, while others are not. [27 and 28] suggest that the accomplishment of SMEs may rely on the individual and how they manage the business.

There is little specific empirical evidence on how education programmes provided by formal institutions have influenced performance among educated and trained small-scale fashion designers in the Ghanaian context. According to [21] educating small-scale entrepreneurs has been argued as a critical requirement in the development and growth of SMEs in many countries. This [21] specified is mainly because, through education, small-scale entrepreneurs develop the required skills, attitudes and knowledge, which collectively affords them the prospect to establish as well as grow their enterprises. The literature abounds with numerous studies demonstrating how vital education and training are relative to small-scale businesspersons in general.

[29] for instance, indicated the importance of education programs for success. [30] also demonstrated the relationship between education and business activity. Thus, any effort aimed at industrialization, employment generation and improved GDP, especially in emerging

economies where SMEs are in preponderance, must recognize the education of small-scale entrepreneurs as a strategy for addressing developmental issues. The current study consequently attempted to examine the influence of formal education on the performance of small-scale fashion designers in the garment sector in Ghana.

According to the human capital theory, education generates skills that foster higher levels of efficiency and income among those who have them in contrast to those who do not [30,31,32]). The world is changing, with enormous consequences for business strategy and value creation. Whether it is an innovative system, disruptive technologies, new business models, changing demographics, or rising political uncertainty, the operating context for companies, including SMEs, is evolving [33,34]. Thus, businesses in all spheres of commerce need to build sustainability, which includes surviving and being successful over the long term. However, the question remains of how these can be achieved. As indicated previously, the current examined the influence of formal education on the performance of small-scale fashion designers in Ghana since garment production is one of the world's most significant and most labour-intensive manufacturing sectors, with estimates of those directly employed ranging from 25 to 60 million people.

The garment production sector is vital in both economic and social terms, in the short-run by providing revenues and occupations for individuals and foreign currency receipts, as well as in the long run by providing countries with the opportunity for continued economic growth with proper policies and institutions to improve the dynamic effects of the fashion industry [35,36,37]. The potential of the garment sector to contribute to long-run development and progress will depend not only on the quality and effectiveness of government policies and institutions in developing countries but also on formal education. While several studies have analyzed the link between formal education and business performance in various sectors, there remains a scant focus on the intersection of formal fashion education and business outcomes, particularly in the context of small-scale fashion designers in Ghana. This lack of region-specific and industry-specific insights connotes that stakeholders, including policymakers, educators, and entrepreneurs, lack empirical evidence to support strategic decisions in promoting the fashion industry in Ghana.

The study thus seeks to examine the relationship between formal fashion education and business performance to determine if there is a direct correlation between having formal fashion education and the overall performance of small-scale fashion designers in Ghana and to assess the perceived value of formal fashion education among Ghanaian small-scale fashion designers, delving into the subjective views of fashion designers, aiming to appreciate their perspectives on whether formal fashion education has provided them with the necessary skills, knowledge, and competencies to drive their business success. Thus, the study specifically examined the relationship between formal education and the business performance of small-scale fashion designers in Ghana, assessed the link formal education has with their business's performance and success and measured the extent to which formal education influences the performance of small-scale fashion designers in Ghana.

2. MATERIALS AND METHODS

This research adopted a survey design approach, considered particularly suitable given the study's focus on small-scale fashion designers in the Ashanti region of Ghana. The survey instrument was meticulously crafted to capture key constructs relevant to fashion design in this demographic and geographical context. To ensure both validity and reliability, the instrument was adapted from existing validated measures, borrowing frameworks from previous studies that were then customized to align with the objectives of this study. The finalized instrument was subjected to pilot testing for further refinement and calibration. The simple random sampling technique was used to select the study participants. A total of 148 small and medium-scale fashion enterprises were selected. Furthermore, a power analysis was executed using a medium effect size of 0.3, a minimum statistical power of 0.8, and a probability of error of 0.05, as recommended by [38]. This analysis confirmed that the sample size of 148 would more than suffice to provide the statistical power necessary for meaningful inferences.

The demographic composition of the sample population (N=148) lends essential context to the study's findings. Gender distribution revealed that 55.4% (n=82) were male, and 44.6% (n=66)

were female. A notable concentration of respondents fell within the 26-30 age bracket, making up 39.2% of the sample, followed by the 31-35 age group at 27.7%. Concerning educational background, the majority held a Bachelor's degree (54.1%), with Diploma holders making up an additional 24.3%, and a minor share possessing Master's (8.1%) or PhD (1.3%) qualifications. Businesses operated by respondents varied in age, with a plurality (38.5%) indicating 1-3 years of operation and a lesser but significant portion (25.7%) at 3-5 years. Employee count within these establishments was chiefly between 1-9 (47.3%), with firms employing 10-49 persons accounting for 31.8% of responses. Most notably, the data indicated a skew towards businesses in the growth stage of their life cycle (59.5%). As for the respondents' roles within their businesses, an overwhelming majority were owners (77.0%), supplemented by a smaller cohort of managers (15.5%), employees (4.7%), and shareholders (2.8%). This demographic landscape offers valuable layers of context for interpreting the substantive results presented herein.

2.1 Measurement Model Assessment

To evaluate the measurement model for this study, we adhered to the guidelines provided by [39] and [40]. We adopted the partial least squares structural equation (PLS-SEM) approach, utilizing the SmartPLS version 4 software for the analysis. Initially, we assessed indicator loadings to ascertain if they surpassed the minimum cut-off criteria of 0.708. This indicates that the construct elucidates over 50 per cent of the indicator's variance, thereby confirming acceptable item reliability. All indicators with factor loadings less than 0.708 were omitted (FFE5, BP1, BP4, BP8, and BP9). The remaining items which met this threshold are highlighted in bold in Table 1.

The constructs' internal consistency reliability was tested using Composite Reliability and Cronbach Alpha values. For Composite Reliability, the values spanned from 0.898 to 0.961, and for Cronbach Alpha, values ranged from 0.898 to 0.915. Both sets of values comfortably met the threshold of 0.7 recommended by [39], confirming the reliability of the constructs.

Table 1. Factor loadings^a

	FFE	BP
FFE1	.847	.176
FFE2	.834	.133
FFE6	.826	.197
FFE7	.790	.224
FFE8	.786	-.025
FFE3	.785	-.008
FFE4	.748	.034
BP7	.096	.870
BP6	.085	.854
BP5	.073	.851
BP3	.105	.819
BP2	.121	.783

Table 2. Test of convergent validity

Construct	Cronbach's Alpha	Composite Reliability	AVE
Formal Fashion Education	0.898	0.898	0.710
Business Performance	0.915	0.961	0.608

Table 3. Fornell-Lacker test results

	BA	BP	BS	FFE
BA	0.810			
BP	0.023	0.842		
BS	0.722	0.085	0.827	
FE	0.720	0.600	0.722	0.780

Table 4. HTMT test results

	BA	BP	BS	FFE
BA				
BP	0.878			
BS	0.722	0.932		
FFE	0.711	0.692	0.835	

After establishing reliability, we tested the convergent validity of the constructs, which reflects the extent to which a construct elucidates the variance of its associated items. For this, we examined the Average Variance Extracted (AVE) for all items in each construct. Acceptable AVE is considered to be 0.50 or higher. Our AVE values ranged from 0.608 to 0.710, thereby meeting this requirement. The results of the tests for convergent validity are presented in Table 2. The discriminant validity of the constructs were also measured, determining how distinct each construct is from the others in the structural model. We used the Fornell-Larcker criterion, which entails comparing the square root of the AVE for each factor against the correlations of constructs with each other. The square root of AVE ought to be higher [41]. In Table 3, the bold

diagonal figures denote the square roots of AVEs, and the off-diagonal figures show the correlations among constructs. Here, the bold diagonal values were all higher than the off-diagonal ones, verifying adequate discriminant validity.

However, the Fornell-Larcker criterion has been critiqued as a weak discriminant validity metric. Instead, the Heterotrait-Monotrait (HTMT) ratio of the correlations is proposed as a more potent alternative ([40,42,43]. The HTMT represents the mean value of the item correlations across constructs relative to the average (geometric) correlations for the items measuring the same construct. Recommended HTMT values should be less than 0.90 [42]. As shown in Table 4, the model passed this test with the highest HTMT

value of 0.932. This confirms the discriminant validity of the constructs.

The analysis conducted provides robust empirical support for the reliability and validity of the constructs used in this study, specifically Formal Fashion Education (FFE) and Business Performance (BP) in the context of small-scale fashion designers in Ghana. The internal consistency reliability of the constructs was assessed using Composite Reliability and Cronbach Alpha values. The values exceeded the threshold of 0.7, indicating a high level of internal consistency within the constructs, thereby ensuring the reliability of the constructs. Next, the convergent validity of the constructs was tested using the Average Variance Extracted (AVE) for all items in each construct. The AVE values exceeded the acceptable threshold of 0.50, confirming the constructs' convergent validity. More so, the discriminant validity of the constructs was confirmed through two tests.

The Fornell-Larcker criterion, which demonstrated that each construct is distinctly different from the others, and the Heterotrait-Monotrait (HTMT) ratio test, a more stringent test, further cemented the discriminant validity of the constructs. The analysis conducted on the constructs has shown high reliability, convergent validity, and discriminant validity. These results suggest that the constructs employed in this study are sound and reliable for examining the influence of formal education on business performance among small-scale fashion designers in Ghana. This solid foundation enhances the credibility and reliability of the subsequent findings of this study.

3. RESULTS

3.1 Structural Model Analysis Results

After validating the measurement model, the next step involved assessing the structural model and the hypothesized relationships. The first task was to examine collinearity, ensuring it would not skew the results. This was accomplished by evaluating the variance inflation factor (VIF) of the latent variables. The VIF values fell within the range of 1 to 2.199, satisfying the requirement of being less than 3 [39]. This suggests no significant multicollinearity issues in the model. Following this, the in-sample explanatory power

of the model was assessed by assessing the R2 values of the endogenous variables. As per the guidelines, R2 values of 0.75, 0.50 and 0.25 can be construed as substantial, moderate, and weak explanatory power, respectively. The R2 value for Business Performance was 0.002, while that for Business Size was 0.094.

These values signify that the model has weak explanatory power. Further, the PLS path model's predictive accuracy was assessed by calculating the Q2 value. As a rule of thumb, Q2 values should exceed zero for a particular endogenous construct to indicate the predictive power of the structural model for that construct [40]. With Q2 values ranging from 0.596 to 0.715, the model demonstrated predictive relevance. In summary, despite the structural model exhibiting weak explanatory power (based on R2 values), the absence of significant multicollinearity (based on VIF values) and the presence of predictive relevance (based on Q2 values) provides a foundation for testing the hypothesized relationships.

Table 5 presents the outcomes of the hypothesis testing for the proposed model. Four hypotheses were tested in the model. Hypothesis 1 posited that Formal Education has a positive effect on Business Performance. The results indicate that this effect is statistically significant ($t = 10.899$, $p < 0.001$), with an effect size of 0.276; hence, Hypothesis 1 was accepted. This implies that formal education significantly influences business performance among small-scale fashion designers in Ghana.

Hypothesis 2 suggested a relationship between Formal Fashion Education and Business Size. The analysis, however, did not support this hypothesis ($t = 1.255$, $p = 0.209$), as the t-statistics value is below the threshold, and the p-value is greater than 0.05; hence, Hypothesis 2 was rejected. This indicates that formal education does not significantly affect business size in the studied context. Hypothesis 3 proposed that Business Size has a positive effect on Business Performance. The t-statistics ($t = 3.285$, $p < 0.001$) confirmed that business size significantly influences business performance; hence, Hypothesis 3 was accepted. This suggests that the size of the business substantially impacts its performance among the studied fashion designers in Ghana.

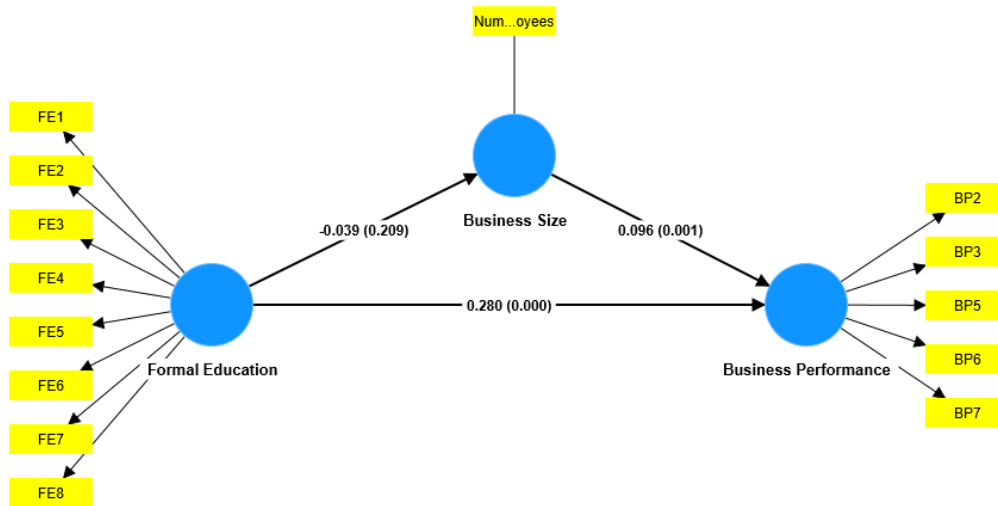


Fig. 1. Model structure
 Source: Researchers Construct (2023)

Table 5. Hypothesized results

Hs.	Hypothesis	Effect Size	T. Stats	Sig.	Decision
H1	Formal Fash Edu → Business Performance	0.280	10.899	0.000	Accepted
H2	Formal Fash Edu → Business Size	-0.039	1.255	0.209	Rejected
H3	Business Size → Business Performance	0.096	3.285	0.001	Accepted
H4	Formal Fash Edu → Business size → Business Performance	-0.004	1.135	0.256	No mediation

Finally, Hypothesis 4 postulated an indirect effect of Formal Education on Business Performance via Business Size. However, the results ($t = 1.135, p = 0.256$) did not provide evidence to support this hypothesis, leading to the rejection of Hypothesis 4. This means business size does not mediate the relationship between formal education and business performance in the given context. The analysis confirmed the positive effects of Formal Fashion Education on Business Performance and Business Size on Business Performance. However, it didn't support the influence of Formal Education on Business Size and the indirect effect of Formal Fashion Education on Business Performance through Business Size.

4. DISCUSSION

The analysis unequivocally confirmed that formal education significantly positively affects business performance (Hypothesis 1). This result reinforces the indispensable role that formal education plays in enhancing the performance of small-scale fashion designers in Ghana. This suggests that fashion designers who have received formal education can utilize the

knowledge and skills they have gained to augment their businesses [44,45]. These gains could be manifested in various aspects of the business.

For instance, formal education can enhance creative processes by equipping fashion designers with technical skills and fostering creative thinking. By understanding the principles of design, fabric properties, garment construction, and other technical aspects, fashion designers can create unique and high-quality designs that meet the needs and preferences of their customers [46]. Moreover, formal fashion education provides fashion designers with an understanding of market trends, consumer behaviour, and business environment. This knowledge can enable them to anticipate changes in fashion trends, identify new market opportunities, and adapt their products and strategies accordingly [47,48].

By improving their communication skills, fashion designers can build strong associations with their clients, understand their desires and preferences, and offer excellent customer service, contributing to business performance

[49]. This finding is consistent with the Human Capital Theory, which posits that investments in education and skills development can enhance individual productivity and contribute to economic growth [50]. Consistent with this theory, the knowledge and skills acquired through formal education can enhance a person's productive capabilities, improving their business performance [51]. Thus, this result underscores the importance of promoting access to formal education for small-scale fashion designers in Ghana.

Providing fashion designers with the necessary knowledge and skills, formal fashion education empowers them to improve their business performance and contribute to developing the fashion industry in Ghana [11]. On the contrary, our study found no statistically significant relationship between formal education and business size (Hypothesis 2). This means that, within the context of small-scale fashion designers in Ghana, formal education may not directly contribute to the expansion or scale of the business. This finding may seem counterintuitive, given the recognized role of education in equipping individuals with the requisite knowledge and skills for business growth [44]. Several possible explanations might account for this finding. One potential cause could be related to market conditions.

Depending on the specific circumstances and characteristics of the fashion market in Ghana, formal education may not directly lead to business expansion. The local market might be saturated, competition may be intense, or customer preferences may be geared towards larger, established fashion brands, limiting the potential for small-scale fashion designers to grow their businesses regardless of their educational attainment. Another possible factor could be related to access to financial resources. While formal education can enhance business skills and competencies, business expansion often requires substantial financial resources for investments in facilities, equipment, raw materials, marketing, and other areas. If small-scale fashion designers in Ghana lack access to adequate financial resources, this may limit their ability to expand their businesses, irrespective of their educational background [52].

It is also noteworthy that other variables not included in this study could influence the correlation between formal education and business size. For instance, the entrepreneur's motivation, networking abilities, industry

experience, and government policies could also impact the relationship between education and business size [14,20,24]. Therefore, while our findings suggest that formal education does not directly lead to an increase in business size for small-scale fashion designers in Ghana, it should be noted that this does not diminish the importance of formal education in equipping fashion designers with essential skills and knowledge for running their businesses successfully. Furthermore, this study's findings suggest that strategies to promote business expansion in the fashion industry in Ghana should consider a broad range of factors beyond formal education.

The validation of Hypothesis 3 in the analysis revealed that business size indeed has a positive effect on business performance. This suggests that larger businesses generally perform better in Ghana's fashion industry than their smaller counterparts. This result could be ascribed to various factors that often accompany growth in business size. One of the key benefits of having a larger business is the ability to exploit economies of scale. Economies of scale occur when the cost per output unit decreases with increasing scale, as fixed costs are spread out over more output units. This allows larger businesses to reduce costs and increase profitability, improving their overall performance.

Larger businesses often tend to have more sophisticated systems and processes to monitor market trends and adapt accordingly, allowing them to stay competitive and maintain strong performance. Moreover, larger businesses may also have more bargaining power with suppliers, which can lead to cost savings. They may also attract more skilled employees due to their reputation and capacity to offer better remuneration and career advancement opportunities, improving productivity and business performance. Therefore, confirming the positive relationship between business size and performance emphasizes the importance of strategies that facilitate the growth and expansion of small-scale fashion designers in Ghana. This could involve improving access to finance, providing training and support to scale their operations, and creating an enabling environment that fosters the growth of small businesses.

Finally, an intriguing finding from the study was that the indirect effect of formal education on business performance through business size was not significant (Hypothesis 4). This suggests a

complex interplay between formal education, business size, and performance. While formal education and business size were found to impact business performance positively, this study did not substantiate the role of business size as a mediator in the relationship between formal education and business performance. This could imply that the influence exerted by formal education on the performance of small-scale fashion designers in Ghana is direct and not necessarily through expanding the size of the business. In other words, the skills and knowledge acquired from formal education can enhance business performance regardless of size. This can occur through various mechanisms, such as improving business management practices, fostering creativity and innovation, or enhancing the ability to identify and exploit market opportunities [53,31].

4.1 Practical Case Studies

Ama is a small-scale fashion designer in Accra. She underwent formal fashion education at a famous fashion institute in Ghana. Her designs often merge traditional Ghanaian styles with modern fashion trends. Notwithstanding having innovative designs, Ama's business struggled with market recognition and competitiveness. Formal fashion education aided Ama to appreciate and explore diverse fashion designs, contributing to her ground-breaking design approach. Nevertheless, the absence of business and marketing modules in her education limited her ability to position her brand in the market effectively. While formal education improves design skills and innovation, an additional focus on business and marketing education is critical for enhancing market competitiveness.

Kwame, a fashion designer based in Kumasi, completed his formal fashion education overseas. Upon returning to Ghana, Kwame faced difficulties sourcing quality materials and finding skilled labour, impacting his production efficiency and quality. Studying overseas provided Kwame with fashion design skills and exposure to a global network of fashion professionals and industry insights. Utilizing these networks, Kwame improved his supply chain by connecting with quality material suppliers and skilled artisans. Formal fashion education, especially from international institutions, can significantly enhance business performance by providing access to global networks and industry insights.

Efia, a young Ghanaian fashion designer, specializes in sustainable and eco-friendly fashion. Efia struggled to communicate the value of her sustainable practices to local consumers, affecting her brand's profitability. Formal fashion education equipped Efia with knowledge about sustainable fashion practices. Although initially a challenge, the sustainable approach differentiated her brand, attracting a niche, eco-conscious market locally and internationally. Formal fashion education that includes modules on sustainability can significantly impact business performance by positioning brands to meet the rising global demand for sustainable fashion.

4.2 Theoretical and Practical Implications

The findings from this study have important implications for policymakers, stakeholders, and industry practitioners in the fashion industry, particularly in Ghana. The discovery of a significant positive relationship between formal education and business performance emphasizes education's pivotal role in enhancing small-scale fashion designers' productivity and performance. This implication should urge policymakers and educational institutions to enact policies and curriculums that equip fashion designers with the knowledge and skills necessary for their field. This could be realized through implementing specialized fashion design programs, workshops, and seminars at universities, colleges, and vocational schools. Moreover, these programs should not just be limited to design and technical skills but should also encompass business-related courses like entrepreneurship, marketing, finance, and supply chain management. Such a comprehensive approach can help designers become well-rounded entrepreneurs who not only excel in designing but also in managing and growing their businesses.

Further, the fact that business size positively influences performance calls for strategies that promote business expansion in the fashion industry. Policymakers should, therefore, develop strategies that stimulate growth and development within the sector. This could involve policies that make it easier for small fashion businesses to access credit, grants or other forms of financing, which are vital for growth. Moreover, business development services that offer training, mentorship, and advisory services can also help small-scale fashion designers build their capacity and scale their operations. It could also involve

the creation of conducive business environments that reduce bureaucratic red tapes, streamline business registration and permit processes, and offer tax incentives for small businesses.

However, considering the lack of a significant relationship between formal education and business size in this study, it's clear that education alone may not be enough to drive business growth. While formal education can equip fashion designers with the necessary skills and knowledge, other factors such as access to capital, market opportunities, business networks, and supportive legal and regulatory environment are critical for business expansion. Therefore, a comprehensive approach integrating education, financial support, business development services, and a conducive business environment is required to enhance the performance and growth of small-scale fashion designers in Ghana.

Moreover, given the fashion industry's growth potential and socio-economic importance, stakeholders like industry associations, chambers of commerce, and non-governmental organizations should also play their part. These stakeholders can lobby for more supportive policies, organize training and networking events, and provide various support services to small-scale fashion designers. For instance, industry associations can create platforms for fashion designers to showcase their work, network with potential customers and partners, and access market information. They can also foster collaborations and partnerships among designers, suppliers, retailers, and other industry players, creating a more integrated and robust fashion ecosystem.

Additionally, the results also provide practical implications for small-scale fashion designers themselves. They underscore the importance of investing in their formal education and continuous learning to keep up with the evolving trends and demands of the industry. They also highlight the need for designers to think beyond their creative work and invest time and resources into growing their businesses. This could involve seeking business training, building business networks, accessing finance, and adopting effective business strategies. The role of research and academia in this regard should not be understated. Continued research on the relationship between education, business size, and performance among small-scale fashion designers is necessary to uncover more nuanced

insights and propose evidence-based policies and interventions. Such research can further enhance the understanding of the dynamics of the fashion industry in Ghana and contribute to the knowledge of how to support its growth and development effectively.

5. CONCLUSION AND LIMITATIONS

This study has provided significant insights into the relationship between formal education and business performance, particularly focusing on small-scale fashion designers in Ghana. The key findings from this study underscore that formal education positively impacts business performance, indicating that acquiring knowledge and skills through formal education can significantly improve a business's operational efficiency, innovation capacity, and overall competitiveness in the fashion industry. Further, the study found that business size also positively influences performance, suggesting that larger small-scale fashion design businesses tend to have better performance outcomes. This could be attributed to various factors, such as their ability to leverage economies of scale, access a more extensive customer base, and have a heightened capacity for innovation.

These conclusions contribute to the broader body of knowledge on SMEs in developing economies, particularly in sectors like fashion design, where formal education can significantly drive business success. Moreover, the findings have important implications for policymakers, industry stakeholders, and entrepreneurs themselves, emphasizing the need for educational interventions, supportive policies, and strategic growth efforts to bolster the performance of small-scale fashion design businesses in Ghana. Hopefully, these conclusions will spur policy actions to strengthen the nexus between formal education and business performance, particularly in the context of the burgeoning fashion industry in Ghana and other similar economies. With strategic support and interventions, small-scale fashion designers are expected to significantly contribute to economic growth, job creation, and overall socio-economic development.

Despite the study's significant findings, there were some limitations. Firstly, formal education, business size, and performance were assessed on a general level. Future research could delve deeper into the intricate dynamics between specific components of these constructs. Again,

this study was conducted in Ghana, a Sub-Saharan African country. While this provided valuable insights into the dynamics within an emerging economy, it also restricts the generalizability of the findings. Addressing these limitations in future research could enrich our understanding of the role of formal education in enhancing business performance among small-scale fashion designers and contribute to formulating effective policies and strategies for this industry.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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