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Fashion Education In Ghana: Investigating Curriculum Gaps And Student Competencies In Technical Universities

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ABSTRACT
The paper discusses the issues faced by students pursuing fashion programmes in Ghanaian Technical Universities, with specific reference to curriculum design, general training barriers, the theory-practice gap, and lecturers' attitudes towards competence-based and student-centred pedagogies. The study used a cross-sectional survey design, involving 290 fashion students and 25 lecturers from five Technical Universities, selected using stratified random sampling. The data were collected using a five-point Likert scale, with a reliability coefficient of 0.863; descriptive and Exploratory Factor Analyses were used for further analysis. Findings showed that students' skills were mainly gained through internships and industry exposure, with little attributable to lecturers' instruction. Evidence of a strong divide between applied competencies and classroom theory led students to find it abstract and lacking any contextual references. Despite these challenges, lecturers were found to support competence-based strategies, which have a higher potential to provide more integrated learning. Its results highlight vital gaps in the curricula, indicating the need to strengthen practical elements, expand industry collaboration, and incorporate sustainability. The implications of these findings are practical for curriculum developers and policymakers who want to ensure that fashion education is relevant to the changing industry requirements. The research therefore provides empirical data on structural and pedagogical issues in Ghanaian Technical University fashion programmes, offering a subtle analysis of theory-practice discrepancies from the perspectives of both students and lecturers in the context of African technical institutions. This two-sided approach paves the way for in-depth analysis of the issues and opportunities of technical fashion education in Ghana.
Keywords: Fashion Education, Technical Universities, Curriculum Structure, Curriculum Challenges, and Training Challenges..

1. INTRODUCTION:

The curriculum in fashion design and textiles at Ghanaian Technical Universities poses numerous challenges for students during their training. While traditional universities have historically trained fashion designers, the shift towards technical institutions has created a more diverse and inclusive educational landscape, presenting both new opportunities and unique challenges that require a comprehensive understanding to meet the evolving needs of the fashion industry. Over the past decade, the apparel production sector, encompassing textiles and fashion design, has experienced significant global expansion (McKenzie & Mühle, 2019). This remarkable growth has led to the establishment of multiple fashion design schools worldwide; however, a critical discussion has emerged examining the relationship between graduates' disappointing employment outcomes and the pedagogical frameworks employed in fashion design education (Amos et al., 2023).

The global fashion industry represents a significant economic sector, generating $2.5 trillion in consumer spending in 2016, positioning itself among the largest consumer businesses globally with an annual growth rate of 5.5 per cent (McKinsey & Company, 2017; McKenzie & Mühle, 2019). Despite this growth, fashion education faces challenges, particularly in theoretical components where students' academic performance often lags behind their practical achievements (Mbete & Ikiroma, 2020). In Ghana's technical universities, fashion students engage in intensive, skill-focused courses that include introductory sewing, pattern drafting, textile properties, artwork, digital design, and personal design. However, recent observations suggest graduates struggle to apply their learning effectively, particularly in problem-solving, technology transfer, and industrial competencies (Kassah et al., 2022).

The competency-based training (CBT) approach in higher education has gained recognition in Ghana's universities as a means to develop business-oriented graduates who can effectively apply academic knowledge to establish enterprises while excelling in industrial and service sectors (Baffour-Awuah & Sarkodie, 2021; Mensah & Boafo, 2022). This approach provides students with critical theoretical and practical competencies necessary for effective employment and entrepreneurship (Ansah & Paintsil, 2020; Gyamfi, 2021). Ghana's Technical Universities' fashion curriculum traditionally required a 60% theory and 40% practice ratio (Abdelhadi & Yusuf,

2016), although recent trends show a shift toward a 60% practical to 40% theoretical emphasis (Zainuddin & Perera, 2019).

Technical and Vocational Education and Training (TVET) in Ghana faces several challenges, including outdated equipment, disjointed frameworks, and insufficient standardisation (Akuffo et al., 2019). However, the government considers TVET crucial to the nation's industrialisation strategy, demonstrated by initiatives such as One District, One Factory, which aims to equip the workforce with practical skills for industrial advancement (Mohammed, 2020). Current pedagogical approaches emphasise the balance of theoretical knowledge with practical application through industry-based learning, internships, and community engagement (Crebert et al., 2004). However, many Ghanaian institutions frequently prioritise theoretical advancement over practical skills, creating gaps between graduate competencies and labour market requirements. The identified issues within Ghana's fashion education system highlight gaps that require immediate attention, particularly in terms of a system-wide curriculum review and reform. This research investigates underlying structural and pedagogical issues, considering student experiences, theory-practice gaps, and lecturer views on competency-based education. It provides valuable information to curriculum designers, instructors, and decision-makers, focusing on improving fashion education to meet regional and international industry demands.

Purpose of the Study

This study investigated the challenges fashion students face in their training based on the structure of the Ghanaian Technical University curriculum. The study specifically assessed the general challenges of fashion students' training in Technical Universities in Ghana; examined the challenges of learning theory compared to practical courses among TU fashion students; and examined lecturers' perceptions of the need for a competence-based student-centred approach.

Methodology

The study adopted the cross-sectional survey research design rooted in a thorough quantitative research approach with 290 students and A sample of 290 fashion students and 25 lecturers in TUs in Ghana. The sample was selected through the stratified random sampling technique. Data was collected using a 5-point Likert scale (self-designed) with a reliability coefficient of 0.863. The study was conducted across five TUs offering fashion programmes. They include Takoradi TU, Kumasi TU, Tamale TTU, Accra TTU, and Dr Hilla Limann TU. All ethical considerations, including obtaining ethical clearance from the Takoradi TU, were adhered to in terms of research ethics. This also included ethical protocols, such as obtaining voluntary participant authorisation and ensuring both privacy protection for responses and university oversight approval. The researchers personally collected the data. Mean and standard deviation, multivariate correlation, and Exploratory Factor Analysis (EFA) were used to analyse the results, which are presented in the American Psychological Association (APA) 7th edition format.

Results and Discussions

General Challenges of Fashion Students' Training in Technical Universities in Ghana

The assessment of the general challenges faced by fashion students in Ghanaian TUs provides insightful insights into various aspects of their training and educational experience. The students' views are summarised from their responses to a series of statements, rated on a scale, with the mean and standard deviation calculated for each statement.

Table 1: Students' View on the General Challenges of Fashion Training in TUs in Ghana

Statement	Mean	Std. Deviation
Theory classes are well-structured and informative for fashion students	3.28	1.182
Practical classes provide sufficient hands-on experience for fashion students.	3.69	1.059
The curriculum covers all the essential aspects of fashion design and production.	3.56	1.001
The institution provides opportunities for internships or industry exposure for fashion students.	4.08	0.915
The institution encourages fashion students to participate in fashion shows, competitions, or other events.	3.86	0.956
The institution provides opportunities for extracurricular activities related to fashion for students.	3.51	1.023
The institution prepares fashion students well for the competitive job market in the fashion industry.	3.64	1.089
The institution provides adequate support services (e.g., counselling, career guidance) for fashion students.	3.53	1.009
The institution offers opportunities for collaboration with other institutions or	3.23	1.090

industry professionals for fashion students.		
The curriculum covers all the essential aspects of fashion design and production.	3.62	0.912
The institution provides adequate resources (e.g., libraries, databases) for research and learning in fashion.	3.54	0.988
The institution provides a comprehensive and high-quality education in fashion design and related fields for students.	3.51	0.975

Source: Field data (2025)

From Table 1, the theoretical aspect of the curriculum received mixed reviews, with students rating the structure and informative nature of the theory classes (M= 3.28; SD= 1.182). This suggests that while some students find the theory classes beneficial, others believe there is room for improvement. In contrast, practical classes received a higher mean and standard deviation scores (M= 3.69; SD= 1.059), indicating a relatively positive consensus that practical classes provide sufficient hands-on experience. The students also expressed moderate satisfaction with the comprehensiveness of the curriculum in covering essential aspects of fashion design and production (M= 3.56; SD= 1.001).

Additionally, the curriculum aspect received a similar but slightly higher score (M= 3.62; SD= 0.912), reinforcing the perception that the curriculum encompasses all the essential aspects of fashion design and production, yet still leaves room for improvement.

Opportunities for internships or industry exposure were rated highly (M= 4.08; SD= 0.915), indicating strong approval from the students. This aspect had the highest mean score among all challenges, reflecting the value students place on real-world experience. Similarly, the institution's encouragement for participation in fashion shows, competitions, or other events (M= 3.86; SD= 0.956) shows that students appreciate these opportunities for practical exposure and engagement. Regarding extracurricular activities related to fashion, students gave a moderate rating (M= 3.51; SD= 1.023), indicating a balanced view on the availability and quality of these activities. The institution's effectiveness in preparing students for the competitive job market in the fashion industry received a mean score of (M= 3.64; SD= 1.089), suggesting that while students feel somewhat prepared, there is a need for further support.

Support services such as counselling and career guidance were rated (M= 3.53; SD= 1.009), indicating that these services are somewhat adequate but could be improved. Opportunities for collaboration with other institutions or industry professionals received a lower mean score (M= 3.23; SD= 1.090), highlighting a potential area for enhancement to foster more industry connections. Finally, the provision of adequate resources like libraries and databases (M= 3.54; SD= 0.988), suggesting that while resources are available, there is potential for expansion. The overall quality of education in fashion design and related fields was rated (M= 3.51; SD= 0.975), indicating that students perceive the education they receive as generally good, yet acknowledging that improvements can be made.

Table 2: Unidimensionality and Reliability of Students' View on the General Challenges of Fashion Students' Training in Technical Universities (TUs) In Ghana Construct

Statement	Factors	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted	Cronbach's Alpha
The institution provides opportunities for extracurricular activities related to fashion for students.	0.763	0.461	0.374	0.865	0.868
The curriculum covers all the essential aspects of fashion design and production.	0.729	0.556	0.434	0.858	
The institution provides adequate support services (e.g., counselling, career guidance) for fashion students.	0.716	0.648	0.530	0.852	
The institution encourages fashion students to participate in fashion shows, competitions, or other events.	0.710	0.539	0.366	0.859	

The institution prepares fashion students well for the competitive job market in the fashion industry.	0.685	0.620	0.488	0.854	
The curriculum covers all the essential aspects of fashion design and production.	0.674	0.683	0.508	0.849	
The practical classes provide sufficient hands-on experience for fashion students.	0.648	0.588	0.480	0.856	
The institution provides opportunities for internships or industry exposure for fashion students.	0.626	0.635	0.479	0.853	
The institution provides a comprehensive and high-quality education in fashion design and related fields for students.	0.575	0.426	0.372	0.866	
The theory classes are well-structured and informative for fashion students	0.556	0.598	0.476	0.856	
The institution offers opportunities for collaboration with other institutions or industry professionals for fashion students.	0.514	0.425	0.249	0.866	
The institution provides adequate resources (e.g., libraries, databases) for research and learning in fashion.					

Extraction Method: Principal Component Analysis

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1 component extracted.

The EFA was conducted to assess the Unidimensionality and reliability of students' views on the general challenges of fashion students' training in TUs in Ghana. Maximum Likelihood with Varimax rotation (ML Varimax) was specified as the extraction and rotation method. Twelve items measured the Construct. The Kaiser-Meyer-Olkin (KMO) of 0.884 with Bartlett's test of sphericity of $p<0.000$ was also obtained, indicating consistency with the recommended KMO cut-off value of 0.70 and Bartlett's test of sphericity of $p<0.05$ suggested by Hair et al. (2010). These results suggested that factor analysis could be conducted with the data. Using a threshold of 0.5 for factor loading which is greater than the recommended value of 0.40 as suggested by Field (2005) and Hair et al. (1998), some of the items had their factor loading exceeding 0.5 for the respective component excluding "*The institution provides adequate resources (e.g., libraries, databases) for research and learning in fashion"* which recorded a threshold below 0.5 making them bad representative of the component. For the component, eleven (11) items recorded a threshold of more than 0.5.

The corrected item-total correlation for the items of the component was extracted using the suggested cut-off value of 0.30. It was found that the items were good measures of the components since the Cronbach's alphas were greater than 0.800 at 0.868 for the component, indicating acceptable internal reliability (Nunnally & Bernstein, 1994). The challenges in training identified by the students primarily revolve around the disparity between theoretical and practical components. Many students expressed difficulty in understanding and applying theoretical knowledge, which often feels disconnected from practical applications. This disconnect is further exacerbated by inadequate teaching methods and limited resources for theoretical courses. Some students also mentioned that the emphasis on practical work sometimes leads to a neglect of theoretical understanding, resulting in a higher failure rate in theoretical courses. Additionally, students highlighted the need for more personalised attention and feedback from lecturers to better address individual learning needs and challenges.

The students' responses indicate mixed perceptions of lecturers' adoption and implementation of competence-based approaches. While some students acknowledge that their lecturers are aware of and supportive of competence-based learning, others feel that the integration of these approaches is inconsistent. Students appreciate the practical, hands-on learning opportunities provided by competence-based approaches, which they believe prepare them well for real-world challenges and encourage creativity and innovation. However, there is also a sentiment that not all lecturers are confident or willing to fully embrace these strategies, and some lack the necessary skills to effectively implement them. This inconsistency in adoption suggests a need for further training and support for lecturers in competence-based pedagogical methods.

Challenges of Learning Theory Compared to Practical Courses among TU Fashion Students

Table 3: Students' Views on Theory vs. Practical Learning Challenges

Statement	Mean	Std. Deviation
Theoretical content is too theoretical and lacks real-world examples for fashion students.	3.40	1.080
Our institution encourages collaboration between theory and practical instructors for fashion students.	3.79	0.913
Theoretical concepts taught in class are easily applicable in practical settings for fashion students.	3.59	0.974
A good balance between theoretical and practical learning exists in the fashion program for students.	3.75	0.904
Adequate resources and facilities for practical learning in fashion are available for students at this institution.	3.39	1.102
Practical sessions help fashion students better understand theoretical concepts.	3.81	1.121
The institution provides enough practical opportunities to reinforce theoretical knowledge for fashion students.	3.68	0.903
Theoretical assessments accurately evaluate fashion students' understanding of practical applications.	3.50	0.916
Theoretical knowledge is often outdated and lacks relevance to current industry practices for fashion students.	3.34	0.950
Practical sessions allow for experimentation and creative expression for fashion students.	3.84	0.938
Practical sessions provide exposure to industry-standard techniques and processes for fashion students.	3.74	1.007
Practical sessions prepare fashion students well for internships and job opportunities.	3.88	1.025

Source: Field data (2025)

The examination of the challenges of learning theory compared to practical courses among fashion students in Ghanaian Technical Universities reveals important insights into their educational experiences. The students found that the theoretical content can be too abstract, lacking real-world examples (M= 3.40; SD= 1.080) (refer to Table 3). This suggests a need for more practical examples to make theoretical content more relatable and applicable. Collaboration between theory and practical instructors is positively viewed (M= 3.79; SD= 0.913), indicating that students appreciate efforts to integrate these aspects of their education. Similarly, theoretical concepts taught in class are seen as somewhat applicable in practical settings (M= 3.59; SD= 0.974), suggesting a moderate level of integration between theory and practice.

Also, students perceive a good balance between theoretical and practical learning in their fashion programs (M= 3.75; SD= 0.904). However, the availability of adequate resources and facilities for practical learning scored slightly lower (M= 3.39; SD= 1.102), indicating that while facilities are generally adequate, there may be room for improvement. Practical sessions are highly valued for enhancing understanding of theoretical concepts (M= 3.81; SD= 1.121). This highlights the importance of hands-on experience in reinforcing theoretical knowledge. Similarly, the provision of enough practical opportunities to reinforce theoretical knowledge (M= 3.68; SD= 0.903), indicating that students feel they receive sufficient practical exposure.

Theoretical assessments are considered moderately accurate in evaluating practical applications (M= 3.50; SD= 0.916). However, there is some concern that theoretical knowledge can be outdated and not always relevant to current industry practices (M= 3.34; SD= 0.950). Practical sessions are seen as highly beneficial for allowing experimentation and creative expression (M= 3.84; SD= 0.938). These sessions also provide exposure to industry-standard techniques and processes (M=3.74; SD=1.007), and prepare students well for internships and job opportunities, with the highest mean (M=3.88; SD=1.025).

The EFA was conducted to assess the Unidimensionality and reliability of students' views on the challenges of learning theory compared to practical courses among TU fashion students in Ghana. Maximum Likelihood with Varimax rotation (ML Varimax) was specified as the

extraction and rotation method. Twelve items measured the Construct. The Kaiser-Meyer-Olkin (KMO) of 0.822 with Bartlett's test of sphericity of $p<0.000$ was also obtained, indicating consistency with the recommended KMO cut-off value of 0.70 and Bartlett's test of sphericity of $p<0.05$ suggested by Hair et al. (2010). These results suggested that factor analysis could be conducted with the data. All twelve items, which are expected to measure students' views on the general challenges of fashion students' training in TUs in Ghana, loaded on one component.

Table 4: Unidimensionality and Reliability of Students' Views on the Challenges of Learning Theory Compared to Practical Courses among TU Fashion Students in Ghana Construct

Factor	Factors	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted	Cronbach's Alpha
Practical sessions allow for experimentation and creative expression for fashion students.	0.800	0.251	0.254	0.864	0.854
Practical sessions prepare fashion students well for internships and job opportunities.	0.776	0.535	0.390	0.843	
Theoretical assessments accurately evaluate fashion students' understanding of practical applications.	0.761	0.455	0.409	0.848	
Practical sessions provide exposure to industry-standard techniques and processes for fashion students.	0.751	0.474	0.464	0.847	
The institution provides enough practical opportunities to reinforce theoretical knowledge for fashion students.	0.723	0.377	0.282	0.855	
Practical sessions help fashion students better understand theoretical concepts.	0.702	0.595	0.564	0.838	
Our institution encourages collaboration between theory and practical instructors for fashion students.	0.603	0.640	0.521	0.836	

A good balance between theoretical and practical learning exists in the fashion program for students.	0.590	0.677	0.526	0.833	
Theoretical concepts taught in class are easily applicable in practical settings for fashion students.	0.544	0.413	0.362	0.851	
Theoretical knowledge is often outdated and lacks relevance to current industry practices for fashion students.					
Adequate resources and facilities for practical learning in fashion are available for students at this institution.					
Theoretical content is too theoretical and lacks real-world examples for fashion students.					

Extraction Method: Principal Component Analysis.

a. 1 component extracted.

Using a threshold of 0.5 for factor loading, which is greater than the recommended value of 0.40 as suggested by Field (2005) and Hair et al. (1998), some of the items had their factor loading exceeding 0.5 for the respective component. Nine (9) items recorded a threshold of more than 0.5 (refer to Table 4). These items measure students' views on the challenges of learning theory compared to practical courses among TU fashion students in Ghana. After the EFA to extract the component, the corrected item-total correlation for the items of the component was extracted using the suggested cut-off value of 0.30. It was found that the items were good measures of the components since the Cronbach's alphas were greater than 0.800 at 0.854 for the component, indicating acceptable internal reliability (Nunnally & Bernstein, 1994). Theoretical fashion courses are perceived to demand more reading and writing skills, which students may find challenging (M= 4.20; SD= 0.939). This indicates a significant difficulty for students in handling the demands of theoretical courses. There is a perceived lack of integration and connection between the theoretical and practical aspects of fashion education (M= 4.12; SD= 0.927).

There is a need for better curriculum integration. Fashion students perceive practical courses as more directly relevant to their future careers (M= 4.18; SD= 0.983), indicating a strong link between practical courses and career preparation. Fashion students struggle to see the relevance of theoretical knowledge in their field (M= 4.40; SD= 0.825), the highest in this assessment, highlighting a major challenge in the theoretical curriculum. Consequently, lecturers see a need for better integration of theory and practical components in fashion education (M= 4.26; SD= 1.035), emphasising the necessity for a cohesive educational approach.

The students highlighted significant challenges in how they grasp theoretical concepts as to practical concepts. Students tend to struggle more with theoretical aspects compared to practical skills, noting that "practical skills are grasped quickly compared to theory." They emphasised the importance of integrating theoretical and practical components, as theoretical knowledge is often seen as "a conversion of the practical aspect of the program." Furthermore, the analysis revealed that the students are generally "more engaged and motivated in

practical classes" and find theoretical courses less stimulating. For instance, these sentiments highlight that practical skills are more readily absorbed by students, whereas theoretical knowledge is sometimes perceived as less relevant and harder to connect with practical applications. They noted that "theoretical components are useful" but stressed the need for better integration to enhance understanding and application of both theory and practice.

The role of practical training in fashion education is viewed as crucial by the lecturers, with varying opinions on its effectiveness. The students further described the practical training as "very good," emphasising its importance despite noting a lack of modern facilities, which hampers its effectiveness. They observed that the practical components are well-regarded, yet the limited time allocated affects the depth of training. As supported by literature (Mbete & Ikiroma, 2020; Acheampong & Addai-Sarpoh, 2023), by acknowledging that practical training is "up to standard," although some challenges persist in its execution. They highlighted that hands-on experience is essential and provides significant benefits, despite the practical training sometimes facing logistical hurdles.

Lecturers' Perceptions of the Need for Competence-Based Student-Centred Approach

The perception of TU lecturers regarding the need for a competence-based, student-centred approach in the Ghanaian TU fashion curriculum reveals their views on various educational strategies. Lecturers' perceptions of the need for a competence-based, student-centred approach in Ghanaian TUs' fashion curricula reveal their views on various educational strategies, as presented in Table 5. Each factor was rated on a scale, and the mean and standard deviation were calculated for analysis.

Table 5: Lecturer's Perception on the Competence-Based Student-Centred Approach

Factors	Mean	Std. Deviation
Student-centred learning encourages collaboration and teamwork among fashion students.	3.85	1.149
A competency-based approach requires more preparation and effort from fashion lecturers.	3.58	1.088
Competence-based education provides a more holistic and practical learning experience for fashion students.	4.05	0.909
Student-centred learning allows for personalised attention and feedback for fashion students.	3.89	0.921
Student-centred learning fosters creativity and innovation in fashion design among students.	3.83	0.977
Student-centred learning promotes self-directed and lifelong learning skills in fashion students.	3.91	0.947
Student-centred learning encourages active participation and engagement among fashion students.	4.03	1.075
A competency-based approach is more effective than traditional teaching methods for fashion students.	3.98	1.111
Competence-based education better prepares fashion students for real-world challenges in the industry.	3.48	1.336
A competence-based approach promotes critical thinking and problem-solving skills in fashion students.	3.58	1.357
Competence-based education aligns better with industry expectations and job requirements for fashion graduates.	3.60	1.222
A competence-based approach promotes critical thinking and problem-solving skills in fashion students.	3.22	1.420

Source: Field data (2025)

The lecturers strongly support the notion that student-centred learning encourages collaboration and teamwork among fashion students (M= 3.85; SD= 1.149). This suggests a commitment to promoting cooperative skills among students through active engagement. A competency-based approach, which requires more preparation and effort from fashion lecturers, is also recognised (M= 3.58; SD= 1.088). This reflects an acknowledgement of the additional workload associated with implementing competency-based education. Competence-based education is perceived as providing a more holistic and practical learning experience for fashion students (M= 4.05; SD= 0.909). This suggests that lecturers see competency-based approaches as beneficial for integrating practical skills with theoretical knowledge. Student-centred learning is believed to allow for personalised attention and feedback for fashion students,

scoring a mean of 3.89 with a standard deviation of 0.921. This highlights the perceived benefits of individualised support and guidance in enhancing student learning outcomes.

Furthermore, student-centred learning is seen as fostering creativity and innovation in fashion design among students (M= 3.83; SD= 0.977. This indicates a belief in the role of personalised approaches in nurturing students' creative potential. Lecturers also recognise that student-centred learning promotes self-directed and lifelong learning skills in fashion students (M= 3.91; SD= 0.947). This underscores the importance of developing independent learning capabilities among students. Moreover, student-centred learning encourages active participation and engagement among fashion students (M= 4.03; SD= 1.075). This reflects the belief that active student involvement enhances learning effectiveness and engagement. While lecturers view a competency-based approach as effective (M= 3.98; SD= 1.111), there is a perception that it better prepares fashion students for real-world challenges in the industry (M= 3.48; SD= 1.336). This indicates a recognition of the practical relevance of competency-based education in aligning with industry expectations.

Additionally, a competency-based approach is seen as promoting critical thinking and problem-solving skills in fashion students (M 3.58; SD = 1.357). This underscores the perceived benefits of competency-based approaches in fostering higher-order thinking skills. However, there is also acknowledgement that competency-based education may not fully align with industry expectations and job requirements for fashion graduates (M= 3.60; SD= 1.222). This suggests a nuanced view regarding the alignment of educational approaches with industry needs. Each factor was rated on a scale, and the mean and standard deviation were calculated for analysis. Lecturers strongly support the notion that student-centred learning encourages collaboration and teamwork among fashion students (M= 3.85; SD= 1.149). This indicates a belief in the importance of fostering cooperative skills among students through active engagement. A competency-based approach, which requires more preparation and effort from fashion lecturers, is also recognised (M= 3.58; SD= 1.088). This reflects an acknowledgement of the additional workload associated with implementing competency-based education.

Competence-based education is perceived as providing a more holistic and practical learning experience for fashion students (M= 4.05; SD= 0.909). This suggests that lecturers see competency-based approaches as beneficial for integrating practical skills with theoretical knowledge. Student-centred learning is believed to allow for personalised attention and feedback for fashion students (M= 3.89; SD= 0.921). This highlights the perceived benefits of individualised support and guidance in enhancing student learning outcomes. Furthermore, student-centred learning is seen as fostering creativity and innovation in fashion design among students (M= 3.83; SD= 0.977). This indicates a belief in the role of personalised approaches in nurturing students' creative potential. Lecturers also recognise that student-centred learning promotes self-directed and lifelong learning skills in fashion students (M= 3.91; SD= 0.947). This underscores the importance of developing independent learning capabilities among students.

Moreover, student-centred learning encourages active participation and engagement among fashion students (M= 4.03; SD= 1.075). This reflects the belief that active student involvement enhances learning effectiveness and engagement. While lecturers view a competency-based approach as effective (M= 3.98; SD= 1.111), there is a perception that it better prepares fashion students for real-world challenges in the industry (M= 3.48; SD= 1.336). This indicates a recognition of the practical relevance of competency-based education in aligning with industry expectations. Additionally, a competency-based approach is seen as promoting critical thinking and problem-solving skills in fashion students (M= 3.58; SD= 1.357). This underscores the perceived benefits of competency-based approaches in fostering higher-order thinking skills. The lecturers provided varied perspectives on the need for a competence-based, student-centred approach in fashion education. The lecturers noted that such an approach would promote "critical thinking and problem-solving skills," aligning well with industry expectations. They expressed confidence in their ability to implement such strategies, affirming that a student-centred approach aligns well with industry needs and would be beneficial for student development.

Table 6: Unidimensionality and Reliability of Lecturer's Perception of The Need for a Competence-Based Student-Centred Approach in the Ghanaian TUs Fashion Curriculum Construct

Factor	Factors	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted	Cronbach's Alpha
Competence-based education better prepares fashion students for real-world challenges in the industry.	0.767	0.459	0.314	0.814	0.825

A competence-based approach promotes critical thinking and problem-solving skills in fashion students.	0.723	0.541	0.503	0.808	
Competence-based education aligns better with industry expectations and job requirements for fashion graduates.	0.698	0.432	0.282	0.816	
A competency-based approach requires more preparation and effort from fashion lecturers.	0.676	0.391	0.417	0.819	
Student-centred learning promotes self-directed and lifelong learning skills in fashion students.	0.651	0.478	0.478	0.813	
A competency-based approach is more effective than traditional teaching methods for fashion students.	0.634	0.535	0.496	0.809	
Student-centred learning encourages active participation and engagement among fashion students.	0.614	0.499	0.414	0.811	
Student-centred learning fosters creativity and innovation in fashion design among students.	0.588	0.545	0.494	0.807	
Student-centred learning encourages collaboration and teamwork among fashion students.	0.562	0.669	0.630	0.794	
Competence-based education provides a more holistic and practical learning experience for fashion students.	0.534	0.613	0.719	0.800	
Student-centred learning allows for personalised attention and feedback for fashion students.					
A competence-based approach promotes critical thinking and problem-solving skills in fashion students.					

Extraction Method: Principal Component Analysis

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a. 1 component extracted.

The EFA was conducted to assess the Unidimensionality and reliability of lecturers' perception of the need for a competence-based student-centred approach in the Ghanaian TUs fashion curriculum construct. Maximum Likelihood with Varimax rotation (ML Varimax) was specified as the extraction and rotation method. Twelve items measured the Construct. The Kaiser-Meyer-Olkin (KMO) of 0.844 with Bartlett's test of sphericity of $p<0.000$ was also obtained, indicating consistency with the recommended KMO cut-off value of 0.70 and Bartlett's test of sphericity of $p<0.05$ suggested by Hair et al. (2010). These results suggested that factor analysis could be conducted with the data. All twelve items, which are expected to measure students' views on the general challenges of fashion students' training in TUs in Ghana, loaded on one component.

Using a threshold of 0.5 for factor loading which is greater than the recommended value of 0.40 as suggested by Field (2005) and Hair et al. (1998), some of the items had their factor loading exceeding 0.5 for the respective component excluding "Student-centred learning allows for personalised attention and feedback for fashion students." and "A competence-based approach promotes critical thinking and problem-solving skills in fashion students." which recorded a threshold below 0.5 making them bad representative of the component while for the component, ten (10) items recorded a threshold more than 0.5. The aforementioned items measure the lecturer's perception of the need for a competence-based student-centred approach in the Ghanaian TUs fashion curriculum. The corrected item-total correlation for the component items was extracted using the suggested cut-off value of 0.30. It was found that the items were good measures of the components, as the Cronbach's alphas were greater than 0.800, at 0.825 for the component, indicating acceptable internal reliability (Nunnally & Bernstein, 1994).

Key Findings

The study reveals that Ghanaian fashion students face challenges in their training due to limited resources,

limited internship opportunities, and insufficient research. However, they perceive themselves as adequately equipped for the competitive fashion industry, but struggle with interaction with lecturers.

The study reveals a disconnection between theoretical and practical skills among TU fashion students. Theoretical materials are perceived as abstract and detached from practical applications. Students demand a balance between theory and practice, while industry players advocate for curriculum reforms to provide a more unified learning experience.

The lecturers believe that students are optimistic about practical projects and a curriculum that incorporates diverse cultures and perspectives within the fashion industry. They advocate for interdisciplinary methodologies and a balanced combination of theory and practical elements in fashion marketing, branding, and retail strategies. They also emphasise the importance of sustainability and ethical standards in fashion education, involving industry professionals and experts.

2. CONCLUSIONS

The findings indicate a gap in the curriculum of the Ghanaian TUs that needs to be addressed by strengthening practical skills, collaboration with industry, sustainability, compliance, and ethical fashion education to enhance transformational outcomes. As a result, the study concludes that fashion students' perceptions of professional readiness are somewhat optimistic, but training resources and support are not readily available. Interaction with the industry through work placements and internships greatly surpasses the skills acquisition gained from lecturer interactions. Moreover, not having adequate research resources hinders their learning; thus, greater sponsored infrastructure is needed alongside collaboration with industry.

It is also concluded that there is a disconnection between practical activities and their theoretical counterparts, with most students perceiving theory as overly intangible. Hands-on training needs to be integrated into the approach, and the curriculum needs to address this imbalance. Stakeholders from the industry also emphasise that students should be taught through hands-on experiences, and the curriculum should reflect this focus to align with industry standards and practices.

Finally, the study concludes that the lecturers appreciate the necessity of practical, real-world projects as well as multicultural interdisciplinary curricula. They maintain a balance between theory and practice by teaching fashion marketing, branding, and technology. However, they advocate for a greater focus on sustainability, ethical standards, and industry expert assistance, so that graduates can fulfil the requirements of the global fashion industry.

3. RECOMMENDATIONS

Ghanaian TUs should acquire modern training tools, such as industrial sewing machines and CAD programs, for fashion students. Incorporate fashion houses, design studios, and affiliated businesses into the curriculum for practical employment. TUs should also open a specialised fashion research centre for evidence-based learning. Incorporate actual work with industry professionals for future fashion curricula.

The study suggests that curriculum developers and faculty should incorporate theory into fashion programs, integrating fabric science lectures with textile testing workshops and fashion history classes. Faculty should increase supervised sessions on pattern design, garment construction, and prototyping studio work. Realistic business scenarios and active teaching strategies can help contextualise theory for students.

Lecturers advocate for a competence-based student-centred approach, replacing traditional assessment methods with skill-based evaluations. Fashion instruction should incorporate sustainable and circular fashion modules, create interdisciplinary courses in fashion technology, establish mentorship programs with industry professionals, and sustain lecturer training on digitalisation to maintain industry relevance.

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