

Academic Gown Design in Ghanaian Technical Universities: History, Theories, and Institutional Identity

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Abstract

This paper investigates the history of academic gowns in Ghanaian technical universities (GTUs) as markers of postcolonial identity and authority. It traces the transition from colonial-style regalia to Kente, Adinkra, and unique regional colours as institutions transitioned from technical schools to universities. This study is interpretivist in nature, employing qualitative document analysis and the narrative synthesis of archival records, interviews, and photographic evidence through the lens of cultural capital, institutional theory, diffusion of innovation, and design history theories to explore how regalia selections reflect institutional aspiration and identity formation. The findings reveal that while GTU gowns are still mostly homogenous, the original mimicry of major institutions has developed into a process of localisation, collaborative manufacture, and symbolic distinction. The research indicates that academic regalia in GTUs include ceremonial dress and material culture that articulate postcolonial identity, institutional aspiration, cultural hybridity, and branding in higher education.

Keywords

Academic Gowns, Ghanaian Technical Universities, Cultural Capital Theory, Institutional Identity Theory, Design History Theory

1. Introduction

Academic ceremonies, such as matriculation, graduation, and investiture, are an important part of higher education traditions and normally involve the wearing of academic regalia. Matriculation is the formal process of registering students into an institution (Essel & Kemevor, 2016); graduation is the celebration of the conferment of degrees, and investitures are the acknowledgement of the appointment of new chancellors or vice chancellors (Howard, Simpson, & Peligah, 2015).

The history of academic gowns may be traced back to mediaeval Europe, where academics donned wool and fur apparel to remain warm in buildings that were not adequately heated (Office of the Registrar, 2020). The “Cappa Clausa” (gown) and hood developed over hundreds of years, moulded by the traditions of Oxford and Cambridge, which laid forth rules for gown-wearing in the 1600s. The mortarboard cap and tassel, which appeared in the 17th and 18th centuries, were symbolic elements of academic attire (Academic Dress University of Manitoba, n.d.). Similar gown designs were used at British and other European institutions and colonial schools (Hoffmann, 2009; National University of Ireland, 2006).

In the United States, the Intercollegiate Commission on Academic Costumes (1895) distinguished the gowns of bachelors, masters, and doctors and used hoods to indicate institutions and academic fields. Additional changes to the Academic Costume Code (1932, 1959, 1986) improved gown features and colour symbolism (Armagost, 2009).

African universities and colleges, such as those in Ghana, have inherited these traditions. The University of Ghana (UG) started using gowns in the 1950s when it was affiliated with the University of London (Academic Gowns at the University of Ghana, 2014, cited in Howard et al., 2015), and this was later adopted by the Kwame Nkrumah University of Science and Technology (KNUST), the University of Cape Coast (UCC), and the University of Education (UEW). Currently, academic gowns are widely used in Ghana, including at GTUs.

The GTUs, that is, Accra (ATU), Cape Coast (CCTU), Ho (HTU), Kumasi (KSTU), Sunyani (STU), Tamale (TATU) and Takoradi (TTU), have similar customs. The institutions were established between 1949 and 1984 as trade or technical institutions and were later upgraded to polytechnics under the Polytechnic Act of 1992 (PNDC Law 321) and subsequently to degree-granting technical universities under the Polytechnic Act of 2007 (Act 745) and the Technical University Act of 2016 (Act 922) with the mandate of promoting technical and vocational education (Howard, 2023).

Academic gowns at GTUs have a vital role in representing the institution’s identity and status; however, the history of their design and the methods of their production remain little documented. Unlike traditional universities, GTUs are highly dependent on outsourced designs, lack local aesthetics and have poor records. Such dependence leads to challenges in identity consolidation and inconsistent quality of gowns (Howard, 2023). This study draws on Howard (2023) and the historical development of GTU gowns by applying the cultural capital theory,

institutional theory, diffusion of innovation theory, and design history theory to understand the influence of institutional norms, innovation adoption, and design history on gown identity and branding.

The reasons for recording the history, design methods, and symbolic significance of GTU gowns are as follows:

- Institutional Identity: Gowns physically embody the institution's tradition, authority, and academic distinction, as well as link the institution to its history and principles.
- Poor documentation threatens to lose culturally important design elements and enhancements to local manufacturing.
- Policy and Practice: Knowledge of prior design decisions can be valuable in guiding the future of in-house gown making, branding strategies, and the sustainable use of indigenous materials (Howard, 2023).
- Strong documentation addresses the limitations identified by Howard *et al.* (2015) in arguing for the need to sustain academic ceremonial practices.

This paper, therefore, revisits historical data to assess reasons for gown buying, the designers involved, and the effect of design methods on institutional identity and branding. The findings contribute not just to Ghana but also to global discourse on the use of cultural identity and power in ceremonial costume by post-colonial institutions. The study fills an important gap in the documentation and offers theoretical perspectives on gown design as a carrier of institutional identity. It is a valuable resource for university communities, designers and academics in academic regalia.

2. Theoretical Review and Conceptual Framework

2.1. Theoretical Review

Drawing on Bourdieu's (1986) Cultural Capital Theory, academic gowns at GTUs can be understood as symbolic resources that confer prestige, legitimacy, and institutional identity. Besides their ceremonial role, gowns are a symbol of power, tradition, and academic merit, distinguishing institutions from academic and socio-cultural orders. In Ghana, regalia is also an obvious manifestation of institutional pride and cultural heritage. Generic and non-contextual gown designs may deplete this symbolic capital since they reduce cultural relevance and institutional originality (Howard *et al.*, 2019). On the other hand, regalia that incorporate indigenous aesthetics, such as kente patterns, adinkra symbols, and Ghanaian colour schemes, become culturally relevant items that promote inclusion, authenticity, and postcolonial identity (Agbo, 2006; Howard *et al.*, 2019).

Institutional theory discusses how universities take up accepted academic traditions to legitimise themselves but also change them so that they represent local identities (DiMaggio & Powell, 1983; Scott, 2013). Similarly, Diffusion of Innovation Theory of Rogers (2003) focuses on the diffusion of indigenous gown designs as culturally relevant innovations in higher education. In addition, design history theory stresses that regalia are historical and cultural objects that are formed by

social and political forces (Buchanan, 2001; Fallan, 2010). Together, these theoretical views highlight how GTUs employ academic regalia to bolster institutional legitimacy, cultural identity, and postcolonial pride. This example highlights how transnational postcolonial organisations use material culture and ceremonial objects to construct identity, retain history and support institutional legitimacy in the current academic environment (Riello, 2011).

2.2. Conceptual Framework

The conceptual framework of this study (Figure 1) includes the theory of cultural capital, the theory of institutional change, the diffusion of innovation theory, and the theory of design history to explore the emergence and relevance of academic gowns in GTUs. Together, these ideas help explain the creation, diffusion, and changes of gown designs, reflecting both official institutional requirements and public pressures.

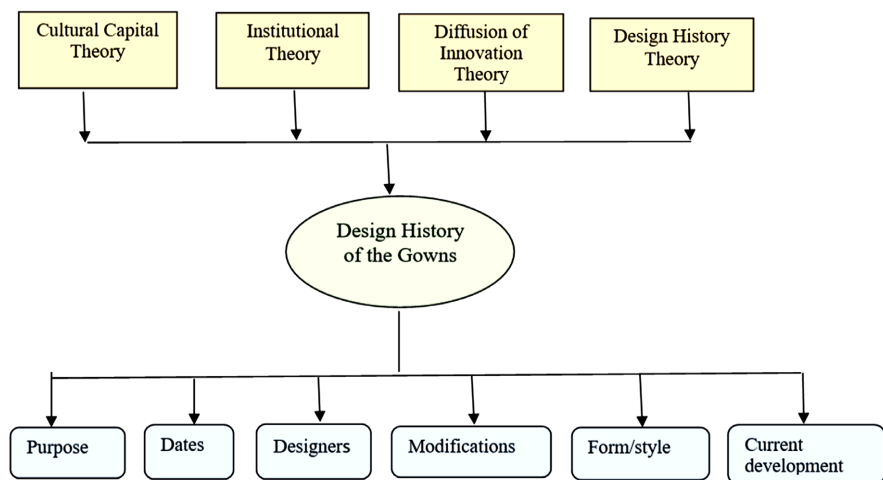


Figure 1. Conceptual framework of the Study. Authors' construction.

The framework is based on six characteristics that explore the design history of gowns: purpose, key historical milestones, contributing designers, design changes throughout time, shape and style, and recent advancements. The systematic technique supports qualitative document analysis, which allows for an in-depth understanding of the ways academic gowns express institutional identity, tradition, and innovation in Ghanaian higher education.

3. Methodology

The present analysis draws on a PhD dissertation by Howard (2023) on the development of academic gowns at GTUs. The initial research was a historical multiple-case study (Yin, 2018; Baxter & Jack, 2008) comprising seven institutions. Semi-structured interviews, photographic recording, and archival analysis were used to collect data from 30 participants, which included administrators, gown designers, and personnel (Creswell, 2015; Morgan, 2022).

To ensure representation across institutional positions and geographical settings, a purposive sample of 30 participants was recruited from all the seven GTUs. Participants included administrators, registrars, senior managers and academic gown designers involved in the creation, fabrication or authorisation of gowns. Accra Technical University (n = 5) included a production lecturer/dean, two gown designers/lecturers, and a former vice-chancellor; Cape Coast Technical University (n = 3) contributed a head of fashion, a former acting registrar, and the current registrar; Ho Technical University (n = 4) included a senior assistant registrar, a senior lecturer, and two gown designers; Kumasi Technical University (n = 5) comprised a deputy registrar, a principal technician/designer, a former vice-rector, an assistant lecturer/designer, and a head of department; Sunyani Technical University (n = 4) included a former vice-rector, a senior assistant registrar, a gown designer/lecturer, and an assistant registrar; Tamale Technical University (n = 4) involved a head of procurement, a former rector, a gown designer/lecturer, and a head of department/chair of gown redesign; and Takoradi Technical University (n = 5) contributed a lecturer, a senior lecturer, a lecturer/production head, an associate professor/director, and a pro-vice-chancellor/associate professor. This combination provided institutional balance and disciplinary variety and made it possible to trace histories of gown design. The administrators clarified their policy, procurement, and historical reliance on foreign suppliers. The designers detailed production techniques, material selections, theme inclusions, and adaptations of Western academic forms to Ghanaian cultural aesthetics.

A narrative inquiry (Bleakley, 2005; Creswell, 2007) was employed to incorporate oral accounts, archival documents, and visual artefacts into coherent institutional narratives. Data analysis was conducted using a narrative synthesis process, archival materials, interview transcripts, and visual evidence. Data were systematically grouped by institution and source type and coded inductively and deductively (Nasheeda et al., 2019) using cultural capital, institutional theory, diffusion of innovation, and design history as analytical frameworks. An interinstitutional examination showed common trends in the historical design of gowns, their production methods, and their symbolic meanings. Triangulating these sources (Chako, 2017) revealed that institutional pressures, cultural values, innovation diffusion, and design heritage collectively shaped gown acquisition and design, influencing their role in institutional identity and branding while also highlighting the broader symbolic and cultural significance of academic regalia in postcolonial higher education.

4. Results

4.1. Profile of Participants

Thirty respondents from seven GTUs (i.e., ATU, CCTU, HTU, KSTU, STU, TaTU, and TTU) contributed their opinions on the design of academic gowns. Ages varied from 41 to over 60 years, and credentials from bachelor's to PhD. 56.7% had master's degrees. Most of the participants were males (83.3%), and

their tenure at the institution was between 5 and 30 years. Participants comprised fashion designers, gown manufacturers, and arts workers (53%), as well as decision-makers responsible for gown policy (36.7%) who were department chairs, deans, registrars, or deputy registrars (60.7%). This profile offers expert opinions on the history of clothing design and institutional methods.

4.2. Institutional Identity and Gown Proprietorship

GTUs tried to become legitimate in the late 1990s and early 2000s through mimetic isomorphism (DiMaggio & Powell, 1983), wearing borrowed robes from established institutions. But the reliance on hire diluted the sense of institutional identity, and institutions thus had to buy distinctive gowns. The others that followed demonstrated the diffusion of innovation (Rogers, 2003), with KsTU being one of the first adopters. Ownership of academic gowns emphasises the institutional individuality and financial autonomy of universities, which may rent their gowns to other institutions. Such a shift points to the relevance of material culture for negotiating identity, legitimacy, and creativity among postcolonial groups.

4.3. Academic Regalia as Cultural Capital

Academic gowns are cultural items that symbolise accomplishment, togetherness, and institutional identity (Buchanan, 2001; Dormer, 1997). GTUs' academic gowns, like those of universities throughout the world, are emblems of history, academic quality, and compatibility with global scholarly traditions, which are extensively represented in research on academic gowns and university regalia (North, 2014; Grooves, 2014). In addition to their ceremonial function, the robes also convey institutional identity, cultural affinity, and symbolic authority by including indigenous aesthetics like Kente and Adinkra, as well as specific regional colour palettes (Howard et al., 2015). Participants stressed the inadequacy of regalia and were strongly in favour of high-quality, bespoke gowns, like status-specific gowns for deans that incorporate institutional philosophy and local characteristics (Howard et al., 2019). This example reflects broader global trends in which universities modify academic regalia to create identity, convey cultural narratives, and increase institutional prestige (North, 2014; Grooves, 2014).

4.4. Design Governance and Hierarchical Influence

During the polytechnic years (2000-2011), the purchase and design of gowns was mostly the domain of senior personnel, with little participation from the university community (Howard, 2023). This hierarchy is in line with institutional theory (DiMaggio & Powell, 1983; Scott, 2013) and supports organisational norms, thereby confining participatory design. However, it did set distinct gowning norms inside each TU.

4.5. Collaborative Design and Innovation

Some TUs built multidisciplinary design teams through collaboration with fash-

ion, textile and art departments; others depended on external designers. Design History Theory (Buchanan, 2001) proposes that objects of cultural relevance are the consequence of contextual and creative inputs. GTUs are able to create original dresses and avoid the homogeneity of worldwide trends and the use of design-thinking principles through collaborative techniques (Keinonen, 2006; Frisk & Barnister, 2022). The design collaboration helped build a stronger institutional identity and cultural representation, as well as innovation.

The results showed that academic gowns are a sign of identity, status and camaraderie and not just ceremonial dresses. Postcolonial institutions can build a singular institutional identity through institutional ownership, collaborative design, and cultural integration while contributing to global academic standards. The Ghanaian example offers significant insights for larger postcolonial and international conversations on material culture, institutional branding, and culturally informed design.

4.6. Evolution of Academic Gown at the GTUs

4.6.1. Evolution of Academic Gowns at Accra Technical University (ATU)

The evolution of academic gowns at ATU exemplifies the Diffusion of Innovation Theory. The fashion department's lecturers, Emma Donkor, Joyce Oppong, and Joyce Amoah, designed the first designs in 2005, which laid the foundation for the subsequent versions. Designs of gowns have evolved under successive rectorates, in accordance with the principle of design history, which posits that things are constantly changing culturally and functionally. Later designs like CDM Fashion Couture (2015) and revised management gowns (2016-2017) reflect the interaction of leadership decisions (institutional theory) and regional design expertise, resulting in regalia that balances tradition and innovation. The practical outcomes of theory-driven design, institutionalisation, and distribution of innovation are evident in ATU's present gown inventory, which consists of around 1500 Higher National Diploma (HND) gowns, 36 bachelor of technology gowns, 144 master's gowns, and 25 PhD gowns.

"We took a conscious, collaborative approach to ensure quality, consistency, and compliance with institutional standards", said a faculty dean. She added that the Executive Committee instructs the production division of the fashion department to make a toile sample for review. Once the initial sample is approved, designers will make five more toiles utilising ATU's colour palette and will offer estimates. We appeal to additional designers to present their works to create greater competition. The final choice is approved by the Council after examining the designs and fabrics.

"As soon as the design is accepted, we begin work", the dean stated. According to the dean, the gown designs are reviewed at several levels and quality assured, with full involvement from management at each level, the dean stated. In this approach, institutional identity is vital. "Gowns must reflect the university's culture". There were institutional colours, but she noted that the finished dresses did not always achieve full uniqueness.

"We consider the identity of ATU, which is why we incorporate colours in the

gown design...Our designs are distinctive within the collection. However, they do not explicitly designate us as ATU. The logo is essential to finalising ATU's identity".

These comments allude to a basic tension between procedural rigour and symbolic representation; the technique is conducted carefully, but the resulting designs may poorly express the intended institutional character.

Figures 2-5 illustrate the development and ceremonial importance of academic regalia at Accra Technical University. The figure highlights the evolution of the gown design for students, members of convocation, faculty deans, and senior management, as well as the infusion of institutional identity, cultural symbolism, and academic tradition over the years.



Figure 2. ATU HND gowns. ATU HND gowns showing the front facings. From left, first gown designed in 2005 by Emma Donkor, Joyce Oppong and Joyce Amoah (First). The second gown was designed in 2015 by CDM Fashion Couture (second), whereas the third gown was designed in 2021 by the Fashion Department of ATU (Third). Images Taken by Howard in November, 2021.



Figure 3. ATU gowns. first from left, bachelor of technology gown, designed by Emma Donkor in 2005. Second, gown for convocation members with Masters' Degree Qualification designed and produced in 2016 by CDM Fashion Couture. Third, gown for convocation members with Ph. D. Degree Designed and produced by the fashion department of ATU in 2016. Images Taken by Howard in November, 2021.



Figure 4. ATU faculty deans' ceremonial gowns. Some ATU faculty deans dressed in their designated ceremonial gowns designed by CDM Fashion Couture in 2017. Image Obtained from the Public Relations Office of ATU in November, 2021.



Figure 5. ATU senior management members' ceremonial gowns. Image of senior management members in their ceremonial robes. From the left, Pro-VC, Council Chairperson, VC and Registrar. Designed in 2017 by CDM Fashion Couture. Image Obtained from the Public Relations Office of ATU in November, 2021.

4.6.2. The Evolution of Gowns at Cape Coast Technical University (CCTU)

The gown history of CCTU exemplifies the complex combination of institutional constraints and innovation and adaptation. Mimetic practices are when new institutions mimic old ones to achieve legitimacy (DiMaggio & Powell, 1983). HND gowns (Figure 6) were purchased externally in 2007 under Professor R.K. Nkum (Figure 6, left and center), exemplifying mimetic activities. In 2010, the administration of Mr. Koomson charged the fashion department to design the first management regalia of the institution (Figure 6, right), demonstrating a move towards internal capacity and contextualised innovation (Rogers, 2003). In 2020, the UCC designed the management gown for CCTU, reflecting a continuation of institutional collaboration and contextualised innovation.

Design changes subtly reinforced institutional identity; CCTU broadened the yellow band and narrowed the red band (Figure 7), which is an example of “copying with modification” and the localised application of institutional theory. Eco-

conomic constraints, such as the fact that graduation fees alone could not fund mass manufacturing, show how the availability of resources affects the acceptance of innovation (Rogers, 2003). However, the original Kente strips were substituted with blue and yellow fabrics due to budget limits, which is an example of the design history theory, where artefacts evolve via the interrelationship between symbolism, function, and resources (Buchanan, 2001).

Figure 6 and Figure 7 illustrate the growth of academic and ceremonial regalia at CCTU. It also shows the style of undergraduate gowns and the unique ceremonial robes that senior management adopted to represent institutional identity and academic heritage.



Figure 6. CCTU Undergraduate Gowns. CCTU HND Gown facing designs on different colour backgrounds. Gowns Were Outsourced from a Private Firm in 2007. Images Taken by Howard in November, 2021.



Figure 7. CCTU Current Senior Management Gowns. Image of Cape Coast Technical University Current Senior Management Gowns. From the right is the vice chancellor, followed by the Pro-Vice Chancellor and then the Registrar (Foreground). Designed in 2020 by University of Cape Coast Production Unit. Image obtained from the Public Relations Office of the Institution in November, 2021.

When data were collected, the CCTU gown inventory consisted of 322 HND gowns, 7 old management gowns, and 4 current management gowns, indicating the cumulative effects of outsourcing, domestic production, and selective redesign. This pattern demonstrates the complex interaction of institutional factors,

the diffusion of innovation, and the development of cultural design and suggests that ceremonial regalia are concrete embodiments of identity, strategy, and cultural negotiation.

In the evolution of CCTU's gowns we see insights into some of the fundamental principles relevant to higher education institutions. Ceremonial clothing is a marker of formal events but also a demonstration of how universities negotiate legitimacy, resource scarcity, and identity construction, with lessons for institutions around the world.

4.6.3. The Development of Academic Gowns at Ho Technical University (HTU)

The evolution of the HTU gown demonstrates the gradual coming together of design and making, driven by changes in leadership and institutional aspirations. Under the leadership of Dr. Afeti, the university was able to develop the first internally produced Bachelor of Technology (B.Tech) gown in 2006 (**Figure 8**, left). HTU was an early adopter (Diffusion of Innovation Theory, Rogers, 2003), where creative practices set a pattern for future developments (**Figure 8** and **Figure 9**).

HTU offered updated HND gowns in 2018 and launched varieties of management robes in 2014-2015, 2017, and 2019-2020, showing a steady evolution and institutional learning. All gowns are designed and manufactured in-house by Dr. Elizabeth Obinnim. Design history theory (Buchanan, 2001) explains how things evolve through innovation, cultural symbolism, and institutional memory. HTU's own capabilities meant the gowns could represent the identity of the university without the requirement for external prototypes.

The design selections were based on economic and identity concerns. One participant commented on the necessity to keep production costs low and not dilute identity, which is consistent with the institutional theory that organisations seek legitimacy through the adoption of distinctive practices (DiMaggio & Powell, 1983). Another alternative for generating money was renting gowns out to other institutions, and this showed how regalia is symbolic and economic capital.

HTU's hierarchical approval process, where prototypes are approved by the academic board before going to the council for approval, shows how institutional norms shape innovation, ensuring that innovations are consistent with organisational expectations. The growth of the original bachelor robe into subsequent versions is an example of iterative evolution, where new artefacts are created from older models and where cultural and institutional memory is included in the designs.

HTU's experiences with academic gowns are illustrative of the complex interrelationship of internal design capacities, financial and identity issues, and institutional governance that place the university in a position of cultural and practical leadership in academic gowns. HTU gown inventory stood at less than 100 B. Tech gowns, 3000 undergraduate gowns, and three sets of four management gowns.

Figure 8 and **Figure 9** show the growth of undergraduate and management ceremonial gowns at HTU, revealing differences in gown style, faculty colour symbolism, and institutional identity over several academic periods.



Figure 8. First HTU Undergraduate Gowns. The left image shows the First HTU Bachelor of Technology Gown designed by the fashion department in 2006, Now used for matriculation by the Convocation Members. The Middle and Right Images Show the Current HTU Undergraduate (HND) Gowns Exhibiting Faculty Colour Front Facings, Tassels and Cap Bases. Designed in 2018 by Dr Elizabeth Obinnim. Images Taken by Howard in December, 2021.



Figure 9. HTU Management Gowns. Images Displaying Various HTU Management Gowns from the first to the current one. Designed in 2014/2015 (Left), 2016/2017 (Middle) and 2019/2020 (Right). All designed by Dr Elizabeth Obinnim. Images Taken by Howard in December, 2021.

4.6.4. The Development of Academic Gowns at Kumasi Technical University (KsTU)

The adoption of institution-owned gowns by KsTU marked an important turning point in the evolution of academic identity in Ghana. In 2000, the fashion department produced over 200 gowns, establishing a benchmark for others to emulate (Rogers, 2003).

Later designs reflect institutional demands, financial constraints, and design evolution. Abdul Razark and Ibrahim Mohammed designed 50 gowns with woven Kente facings in 2012 (see **Figure 10**, left, for a sample of the design). Originally for convocation members, these were adapted for students later, demonstrating the de-

sign history theory (Buchanan, 2001), where items carry cultural meaning and usefulness.

In 2014, the HND gowns with printed kente facings were introduced under the direction of Prof. Nsowah Nuamah (Figure 10 right), adding to the first woven kente-front design (Figure 10 left), both of which are still in use today. Between 2019 and 2020, a simplified HND gown with a yellow fabric front facing was launched. The simplified gown was outsourced yet under the supervision of the fashion department (Figure 10 middle), reflecting an institutional adaptation under resource constraints and coercive pressures consistent with institutional isomorphism (DiMaggio & Powell, 1983). The management gowns (Figure 11 left and right) exemplify institutional role differentiation and formalised hierarchy through ceremonial dress, whereas the vice chancellor's investiture gown (Figure 11 middle) signifies institutional legitimacy and executive authority rooted in the university's ceremonial order.

The gowns of the Master of Technology (M.Tech) graduates (Figure 12), the academic deans (Figure 13), the management personnel and the Chancellor's investiture gown (2022) (Figure 14) have been an iterative, collaborative design integrating technological expertise, cultural elements, and institutional direction since 2020. Gowns did not have emblems before, but management progressively introduced signs of legitimacy, in line with the emphasis of institutional theory on the incremental adoption of identification markers. The earliest external effects indicate the mimetic propensities of the institutions that accept global standards before localisation.



Figure 10. KsTU Undergraduate Gowns. Images exhibiting the Various HND Gowns of KsTU. From the extreme left is the first gown with a woven Kente front designed and produced in 2012 by Ibrahim Mohammed and Abdul-Razark Seini Yusif (left). Second Gown with Printed Kente Front, Designed in 2014 by Ibrahim Mohammed (Right). Current Gown with Yellow Fabric Front Facing Outsourced but Supervised by the Fashion Department, Designed in 2019/2020 (Middle). Image taken by Howard in February 2023.



Figure 11. KsTU Management Gowns. Council Chair's Gown (Right) designed in 2014, investiture gown (middle) designed in 2019, Pro Vice Chancellor's Gown (Left) Designed in 2014 by Abdul Razark Yusif Seini (Kumasi Technical University, 2020). Image Obtained from <https://kstu.edu.gh/media/articles/kumasi-technical-university-holds-15th-congregation>.



Figure 12. KsTU Master of Technology Gown. KsTU Master of Technology Gown Showing the Satin Front Face with the Graduate School Logo and the Institution Logo Embossed at the Chest Level. Designed in 2020 by Abdul-Razark with the help of the faculty design team. Image obtained from the public relations office in February 2023.



Figure 13. KsTU Gowns for Deans and Directors designed and produced in 2023 by Abdul-Razark Seini Yusif with the help of the faculty design team. Third from the left is the current Vice Chancellor (Kumasi Technical University, 2023). <https://kstu.edu.gh/media/articles/special-academic-gowns-unveiled-kstu-deans-and-directors-mark-academic-excellence>.



Figure 14. KsTU Management Gowns. Current Management’s Ceremonial Gowns. From the left is the Pro VC, followed by the council chair, then the Chancellor, the Vice President Dr. Bawumia in a suit, the Vice Chancellor and the Registrar at the extreme right. All gowns were designed in 2020, except the chancellor’s gown, which was designed in 2022. All were designed by Abdul-Razak Seini Yusif and the Faculty Design Team at KsTU. Image obtained from the public relations office in February 2023.

Future gown designs will consist of a uniform blue-black robe, with different colours on the front facings to indicate faculty affiliation. This keeps everything uniform and clearly shows faculty affiliation. It is a matter of the continual diffusion of innovation and the blending of local culture with global academic traditions. The KsTU gown trajectory is a case in point of the complex interaction of the dynamics of innovation, legitimacy, resource management, and cultural design history, emphasising that ceremonial regalia are material representations of institutional identity and adaptive strategy. Per Howard’s (2023) account, KsTU had 750 undergraduate gowns, four M.Tech gowns, and three sets of four management gowns.

The study summarises the evolution and diversification of academic and ceremonial regalia at Kumasi Technical University in Figures 10-14, which show kente-inspired designs, institutional symbolism, and unique gowns for students, graduate schools, deans, directors, and senior management.

4.6.5. The Creation of Tailored Gowns at Sunyani Technical University (STU)

The creation of the STU academic gowns represents a shift away from reliance on external influences towards the establishment of a distinctive institutional identity. The initial management robes were introduced at STU in 2011 during the tenure of Prof. Thomas Kwadwo Djan-Fordjour as rector and were entirely outsourced (see Figure 15, right). This early dependence on external sources exemplifies mimetic isomorphism (DiMaggio & Powell, 1983), a phenomenon where emerging institutions adopt traditional symbols, often modelled on KNUST regalia, to gain legitimacy. Between 2014 and 2015, the Visual and Industrial Arts (VIA) department, under the vice chancellorship of Prof. Kwadwo Adinkra-App

piah, began to spearhead the design process. The management gowns produced by Pax Garments (refer to **Figure 15**, left and middle; **Figure 16**), featuring minor modifications, illustrate a form of collaborative production shaped by institutional ideology, local creativity, and practical constraints, as discussed in design history theory (Buchanan, 2001).

The two reasons that STU went custom were cost and individuality. A former member of the management team noted the aggressively hired gowns featured KNUST insignia, which dimmed the visibility of STU. The production of varied regalia served as a financial strategy and as a mark of distinctiveness. This is in line with institutional theory, which states that institutions develop unique insignia to promote legitimacy. “As an emerging institution, you need academic gowns to promote yourself” reconstitutes gowns as cultural capital, something that signals status and institutional identity.

The designs in the VIA section included the colours, Ghanaian aesthetics, and embossed STU insignia. The department used kente-inspired designs to foster cultural identity and conform to worldwide academic regalia standards. The iterative design approach, prototype presentations, technical improvements from Pax Garments (including colour balancing and fabric suggestions), and management approvals are examples of the diffusion of innovation theory. This approach argues that invention progresses through the refinement of ideas by various stakeholders.

The finished products were 200 student gowns, 25 PhD graduation gowns, and four senior managements’ robes, all embroidered with the STU symbol. The transition of STU from outsourced to institutionally driven, culturally infused design highlights the complex relationships between restrictions, innovation, and cultural expression in the development of contemporary technical university gowns.



Figure 15. STU Gowns. Images Displaying the Front Face of the STU Bachelor of Technology Gown (Left) and Convocation Gowns for Ph.D. Holders (Middle) Designed by Pax Garments in 2014/2015. The third image shows the current VC, who was also the vice rector and the interim VC between 2013 and 2016 (right), designed in 2011 by a private gown contractor from Accra. Images of the bachelor’s and convocation gowns were taken by the researchers, and the third image was obtained from the university’s 13th Congregation Brochure, all in October 2021.



Figure 16. STU Current Management Gowns. Images Showing Designs of the Management Gowns. From the left are the Council Chair (first), Vice Chancellor (third), Registrar (fourth), Pro-Vice Chancellor (fifth). Designed by the Visual and Industrial Arts Department in 2015. Image taken by the researchers in October 2021.

4.6.6. The Evolution of Academic Gowns at Tamale Technical University (TaTU)

The production of academic gowns at TaTU is a junction of institutional identity, cultural expression, and fiscal issues. TaTU was the first in the country to manufacture HND gowns using a progressive manufacturing method. The project began with sixty gowns in 2007/2008 under the rectorship of Prof. Peligah, with the Fashion Department creating them domestically (Figure 17, left). The department also made the rector's robe (Figure 17, right) during this time. TaTU used a delayed adoption approach to increase capacity while retaining institutional autonomy, which is in line with the Diffusion of Innovations theory (Rogers, 2003).



Figure 17. TaTU Gowns. The First HND Gown (left) and the First Rector's Gown (right) were designed by Prof. Peligah and produced by the Fashion Department of TaTU in 2007/2008. Image of the HND gown, taken by Howard in October 2021. Image of the Rector's Gown Obtained from the Vice Chancellor's Secretary in May 2022.

This is the first in-house approach. One previous rector claimed the robes were not merely a method of keeping expenses down but a manner of displaying a distinctive northern character. The emphasis on regional symbolism, through hues and regionally inspired motifs, is consistent with design history theory (Buchanan, 2001) that views design products as bearers of cultural narratives and institutional values. These first designs gave TaTU the chance to showcase its regalia as markers of Northern Ghanaian identity in the wider academic context. Refer to **Figure 17** for the details.

The period when Prof. Asoro was the vice-chancellor saw a major transition in 2018, when the making of gowns for HND graduates, convocation ceremonies and senior management (**Figure 18** and **Figure 19**) was handed over to Mr. Boakye, a Kumasi-based supplier, who is known for making gowns for KNUST, UCC, and other GTUs. This change is an example of mimetic isomorphism (DiMaggio & Powell, 1983), where organisations imitate prior patterns to gain legitimacy and quality. TaTU provided the colour requirements and approvals, but the supplier provided the technical advancements and material ideas. This is an example of a collaborative innovation process that is consistent with the diffusion of innovation theory. The procurement procedures aligned to the institutional criteria: internal designs were submitted to the academic board, and external manufacture was tendered competitively. The combination of global academic regalia standards, thanks to the competence of the provider, with the colours and insignia of TaTU, creates a perfect fusion of tradition, innovation, and cultural identity.

TaTU's gowns have a history of in-house production and later outsourcing to specialists, reflecting the impact of institutional identities, economic considerations, and design partnerships. The gowns function as cultural artefacts that reflect the distinctiveness of Northern Ghana and are important symbols of institutional status.



Figure 18. TaTU Gowns. Current HND Gown (Left), Master's Convocation Gown (Middle), and Ph.D. Convocation Gown (Right). Designed and produced in 2018 by Mr. Boakye, a gown contractor in Kumasi. Images Taken by Howard in October 2021.



Figure 19. TaTU Gowns. Senior Management Gowns Displaying the Front Faces, Signifying the Various Offices. From the Left: Council Chair (1st), Vice Chancellor (2nd), Pro-Vice Chancellor (3rd) and the Registrar (4th), respectively. Designed and produced in 2018 by Mr Boakye. Images Taken by Howard in October 2021.

4.6.7. The Evolution of Academic Regalia at Takoradi Technical University (TTU)

TTU's academic regalia emerged from a purposeful synthesis of institutional identity, cultural aesthetics, and flexible design approaches (Figures 20-22). The management gowns (Figure 22) at TTU were initially introduced in 2010, followed by the Bachelor of Technology gowns in 2011, Convocation Members' gowns in 2010, and HND gowns in 2011, all produced by a commercial contractor, Mr. Ayim (Figure 20). Further expansions between 2012 and 2018 increased the inventory to 3315 HND and Bachelor of Technology gowns, 175 convocation gowns for master's degree recipients, 20 PhD gowns (Figure 21), and 10 management gowns.



Figure 20. TTU Gowns below Ph.D. Images Showing the Front and Back Views of the TTU Gowns. B-Tech (left) was designed in 2011. The Convocation Members' Gown (middle) was designed in 2010, while the HND Gown (right) was designed and produced in 2011 by Mr. Ayim. Back Views of the Gowns Arranged in the Same Order. Image taken by Howard in November 2021.



Figure 21. TTU Ph.D. Convocation Gown. Images Depicting Some Convocation Members in Takoradi Technical University Convocation Gowns for Ph. D. Holders. Designed in 2010 by Mr Ayim, a Gown Designer at Accra (Takoradi Technical University, n.d.).



Figure 22. TTU Management Ceremonial Gowns. The front view of the management gowns displaying the Kente Front Facings. Deans and Directors Ceremonial Gown (Left), Senior Management Ceremonial Gown (Middle) and Registrars Ceremonial Gown (Right), Designed and Produced by Mr Ayim in 2010. Images Taken by Howard in November, 2021.

TTU taking on the old production patterns of traditional universities is an example of mimetic isomorphism (DiMaggio & Powell, 1983) that relies on an outside vendor. The university exercised strategic control by naming the institutional colours, requiring local symbols and approving all sample designs. This tension between external knowledge and internal control is consistent with design history theory (Buchanan, 2001), which stresses that products are the outcome of negotiated processes that combine cultural meaning with technological realisation.

The supplier claimed that institutional colours inspired the patterns, and they used kente faces in ceremonial robes to promote Ghana's cultural heritage. The collaborative nature of the design approach is evident in his statement that "They told me what they liked, and I suggested the right mixes to achieve the look they wanted". By incorporating Kente and other institutional symbols, TTU designed

its gown to function as signifiers of both cultural identity and institutional stature.

The store manager said the new gowns were made to represent TTU's development as a technical university, highlighting the role a gown plays in symbolising institutional progress. This process is a demonstration of the Diffusion of Innovation Theory (Rogers, 2003), as TTU has different gowns for HND, Bachelor of Technology, master's and PhD degrees.

TTU took influence from online design, particularly global standards for graphics, and adjusted them for local contexts. TTU's gown history exemplifies the confluence of external contractors, internal decision-makers and cultural dimensions in generating regalia that meets worldwide standards yet reflects local identity based on institutional legitimacy, innovation adoption, and cultural design legacy.

Across the seven GTUs, gown development illustrates how nascent institutions navigate legitimacy, cultural identity, and budget limitations. Initial regalia—whether acquired outside (CCTU, STU, or TTU) or manufactured internally (KsTU, HTU, TaTU, or ATU)—frequently emulated existing universities like KNUST and UCC, illustrating mimetic isomorphism as institutions embraced recognisable emblems to enhance legitimacy. Over time, each technical university engaged in localised adaptation, altering colour palettes, kente faces, trimmings, and insignia positioning to establish uniqueness.

The creation of gowns evolved into a cultural and institutional design process. The continual incorporation of kente, regional aesthetics (such as TaTU's Northern identity), and institution-specific hues corresponds with design history theory, emphasising the evolution of regalia via the interaction of cultural significance, institutional narratives, and accessible resources. Robust internal fashion units—especially at HTU, KsTU, TaTU, and ATU—facilitated enhanced cultural integration and decreased dependence on foreign contractors.

Innovation is disseminated unevenly throughout institutions. Early adopters with internal capabilities established benchmarks, while others oscillated between outsourcing and in-house production as financial resources and skills fluctuated. The progressive introduction of distinct gowns for HND, B. Tech., master's, and PhD levels exemplifies the Diffusion of Innovation Theory in action.

The seven case studies together demonstrate that academic gowns serve as identity technologies, enabling GTUs to integrate global academic traditions with locally rooted aesthetics, thereby enhancing institutional legitimacy and visibility.

5. Discussion

5.1. Tradition, Legitimacy, and Institutional Identity

Postcolonialism is a project for different GTUs to legitimise and assert cultural identities via academic clothing. Elite universities, like the University of Ghana, KNUST, and UCC, inspired the original gowns, which were authoritative but also limited local expression. Howard (2023) argues that gowns serve as signs of social ties, thereby maintaining identity rather than imposing a hierarchy. Academic re-

galia generates collective and institution-specific effects based on cultural values and institutional norms (Wearden, 2015).

Dressing in Africa is about identity and uniqueness. In the Cameroon Grassfields, uniforms are a “social skin” (Fokwang, 2015) and in South Africa, the Basotho are clothed in attire that is about preserving history and instilling respect for one’s forefathers (Pheto-Moeti, 2020). For instance, Prof. Petersen wore a gown at his 2017 inauguration at the University of the Free State that honoured cultural history and established institutional legitimacy based on Basotho custom (Seithati, 2017). That is typical for GTUs. As Newton (2014) noted, the most striking characteristic of the gown at African institutions, such as Kenyatta University, is the front panel, which generally features a series of coloured triangles representing the belt buckle of Kenya’s first president, Jomo Kenyatta, as depicted in the national coat of arms.

In America, the Harvard crow’s-feet needlework signifies institutional identity, academic status, and affiliation with a specific discipline. It is a unique traditional characteristic introduced in 1902. The loop forms represent degree type, and colours indicate area of study (Hoffmann, 2009). The Illawarra Flame Tree is the emblem of the academic regalia of the University of Wollongong. The Illawarra Flame Tree signifies the regional identity and the university’s status as the hub of development and regeneration (University of Wollongong, 2024). In summary, academic gowns in some regions of the world, such as Africa, America and Australia, are utilised for ranking and disciplining reasons but also to demonstrate institutional identity, cultural heritage and regional pride. This shows how colleges adapt global traditions to their views and histories.

5.2. Innovation and Dissemination of Design

An example of Diffusion of Innovation Theory of Rogers (2003) is the slow indigenisation of academic gowns (see Figure 1), exemplifying how new design principles are diffused across institutions. KsTU and HTU both set trends in the sector, the former in kente-infused robes and indigenous colour schemes and the latter in locally manufactured regalia based on institutional hues. Howard, Simpson, and Peligah (2015) argue that leadership enables designers to express the organisation’s ideals in aesthetic form, leading to creative improvements. This assertion is also corroborated by the findings of Dzramedo, Birteeb, and Lansah (2025) at UDS, who found strong support for the design of unique gowns for deans, directors, and principals with logos, mottos, and rank-specific insignia. Institutions are producers, not consumers of symbolic innovation. It is part of a global movement of institutions changing their usual academic dress to highlight their cultural distinctiveness and improve their global reputation.

5.3. Design Heritage and Cultural Narratives

Academic gowns are cultural artefacts that trace the evolution of higher education through Ghana’s design history. The changes in fabrics, colours, and patterns in-

dicating changing institutional ideals and are an expression of a view articulated by Buchanan (2001) of design as a conversation between aesthetics, technology, and relevance. Findings from Acquah et al. (2017), and Ampa-Korsah (2021), support the view that GTU gowns are important cultural icons as both Ghanaian textiles and academic gown designs, convey common messages of identity and collective memory—with some gowns incorporating Kente and Adinkra symbols to reinforce this link. This phenomenon is part of a bigger worldwide trend of universities adapting conventional academic dress to reflect local identities, institutional values, and cultural heritage. This tendency is affirmed by research by the University for Development Studies (UDS), which shows how Ghanaian institutions are part of a global trend that sees academic regalia as more than apparel but as tactical instruments for cultural storytelling and global stature.

5.4. Governance, Collaboration, and Design Policy

Design governance at GTUs is crucial to the promotion of innovation. Bureaucracy facilitates accountability but frequently stifles innovation, and poor regulatory frameworks lead to inconsistent designs and reduced branding (Howard, 2023). Participatory approaches at KsTU, HTU and STU show that collaboration between designers and leaders produces gowns that balance inventiveness with institutional identity. UDS also states that the involvement of people improves cultural importance and stakeholders' investment (Dzamedo et al., 2025). There is international precedence for this approach. The Intercollegiate Commission on Academic Costume (1895) and its revisions set down precise standards that affected the design and symbolism of gowns (Armogost, 2009). To sum up, structured yet participatory governance results in more unified and inventive academic regalia.

5.5. Symbolism, Hierarchy, and Identity

Academic robes are a symbol of the hierarchy of the colleges across the world. The opulent robes of chancellors and rectors signal authority, while the simple robes of students imply a lower position, consistent with notions that clothing indicates status and group membership (Tajfel, 1981; Ridgeway, 2014). GTUs echo this notion. UDS respondents choose themes that are distinctive to their rank to boost pride and identification (Dzamedo et al., 2025). This finding is similar to the observation of Essel and Kemevor (2016) that the combination of academic and traditional regalia exemplifies Ghanaian educational hybridity. In Africa, clothing is used to express culture, such as the uniforms making up the “social skin” of the Cameroon Grassfields (Fokwang, 2015); the regalia of the UFS, which is based on the Basotho (Pheto-Moeti, 2020; Newton, 2014); and the gowns of Kenyatta University, which express national symbols. Design is used to create hierarchies on a worldwide scale, both in the British tradition of faculty colours and the American Academic Costume Code. Collectively, these actions show how academic dress in Ghana, Africa, and the world becomes a visual marker of rank, culture, and institutional legitimacy.

5.6. Sustainability and Local Industry

The shift to domestically created gowns represents both creativity and economic independence. GTUs are working with Ghanaian textile makers and indigenous fashion companies to improve sustainable design and reduce imports. Howard et al. (2019) assert that using local craftsmanship in academic regalia further fosters economic empowerment, protects cultural identity and boosts institutional branding. This assertion is supported by the UDS study, with results that reveal a strong endorsement of design techniques that combine tradition and innovation, thereby ensuring both symbolic and practical sustainability. Ajayi (2023) found that most Nigerian students agreed to Aso-oke as graduation wear and would recommend it, noting that perceptions of the fabric significantly influenced its acceptance.

5.7. Institutional Adoption, Capacity, and Obstacles to In-House Gown Manufacturing

Gradually the GTUs are assuming possession of the academic regalia to reduce the rental costs and to create a symbolic identity. The speed of this shift varies among institutions, suggesting differences in institutional competence, resources and strategic agency (Howard, 2023). This trend is in keeping with institutional theory, which states that organisations adopt procedures not just for efficiency but also to obtain legitimacy and symbolic conformity in their environment (Scott, 2013; DiMaggio & Powell, 1983).

The ceremonial gown was the first thing to be subcontracted. This dependence on suppliers of academic regalia is reflective of a wider international trend in institutions of higher education. The University of Exeter, for example, in its early years in the 1950s, relied on external gown suppliers (Quy, 2020). This trend shows institutional isomorphic pressures for emergent organisations to imitate existing processes and structures in order to gain legitimacy before developing their own internal mechanisms and productive capability (DiMaggio & Powell, 1983).

Ho Technical University (HTU) and Kumasi Technical University (KsTU) are the early adopters of in-house production among the GTUs. The planned skill development for creating the HTU fashion department in 2006 is an example of the resource-based view that includes internal resources as sources of sustainable competitive advantage (Barney, 1991). The low output of the early attempts at the KsTU shows the influence of resource limitations on institutionalisation (Howard, 2023; Howard et al., 2019).

However, TTU still outsources due to a lack of internal capacity development and path dependence, where the first steps restrict subsequent organisational transformations (Mahoney, 2000). In the nascent phase of implementation, both STU and CCTU were without facilities and competent personnel, depending on local suppliers' help (Howard, 2023). The previous examples illustrate the notion of dynamic capabilities, which is about the ability to combine and rearrange re-

sources within restrictions (Teece et al., 1997).

Procurement problems also affected the results. CCTU received fewer gowns than they bargained for, which is a principal-agent problem in procurement procedures (Eisenhardt, 1989). The funding of HTU is set up, unlike the challenges of KsTU. These flaws compromise the symbolic cohesion of institutional representations (Amisshah, 2009; Essel & Kemevor, 2016).

There was great diversity in design control. TTU used generic contractor templates whereas HTU and the ATU used more stringent monitoring. One way to contemplate institutional logic is to consider the duel between commercial efficiency and symbolic identification during decision-making (Thornton et al., 2012). The mix of European gown traditions with kente and adinkra motifs at Kwame Nkrumah University of Science and Technology (KNUST) and the University of Ghana (UG) is thought to enhance legitimacy via cultural adaptation (Osei-Poku, 1999; Newton, 2014).

Overall, adoption is sporadic and slow. Institutions with better planning and capacity, however, may move faster, while others continue to outsource. This reinforces the notion that resource reliance, institutional pressures, and competence growth drive institutional identity construction (Pfeffer & Salancik, 1978; Scott, 2013).

5.8. Theoretical Synthesis

The design development of academic gowns at GTUs is best explained by a combination of institutional theory, diffusion theory, innovation theory, and design history theory. Together, these theories explain the variety of institutional controls discussed in Section 5.7. Institutional Theory (DiMaggio & Powell, 1983; Scott, 2013) accounts for variations in design governance by the degree of response to coercive and normative forces. Institutions with stronger internal capacity (e.g., ATU, HTU and KsTU) are in a better position to impose control, whereas resource-limited institutions (e.g., TTU, STU, CCTU, and TaTU) are more inclined to outsource and therefore weaker in terms of symbolic governance.

The Diffusion of Innovation Theory (Rogers, 2003) can provide an explanation for the different rates of adoption of in-house production and design control by the seven technical universities. Early adopters are more prepared in their businesses and perceive an advantage, but others have delayed or partial adoption due to financial, technical skills and human resource constraints. This results in a delayed and non-linear transition from rental to institutional forms of production.

Design History Theory (Buchanan, 2001; Walker, 1990) locates gown hybridisation, especially the use of Kente and Adinkra motifs at KNUST and UG, in a wider cultural adaptation of material design and points to the symbolic function of regalia in communicating heritage, hierarchy, and legitimacy.

In sum, these theories provide a theoretical framework for the interaction of

institutional pressures, creative dissemination mechanisms, and cultural design development with the differences in gown control and production capability among the seven technical universities. The seven-stage framework for academic gown design of Howard (2023) further supports this synthesis by providing a systematic approach to integrating institutional philosophy and indigenous aesthetics into the design of academic regalia.

5.9. Economic and Practical Implications for Local In-House Production

Besides operational efficiency, the economic and institutional benefits of in-house academic gown manufacture over outsourcing are important. Institutions like CCTU, STU, TaTU and TTU often experience branding inconsistencies, variable quality, delivery delays, and cost overruns when outsourcing production. It moves away from a rental-dependent paradigm to institutional ownership. It makes gowns a long-term asset rather than a recurring expense. It creates chances for IGF-domestically produced income.

The upfront capital expenditure is large, as seen by the initial production restrictions of KsTU, but in-house systems grow more cost-effective over time and may even create internal income. Institutions can also establish regulated rental systems and feed graduation-related fees back into production. This will help make the exercise financially viable without putting further strain on the institution's resources.

The first dependency on outsourcing was based on the lack of equipment and competent staff. Strengthening internal production units such as fashion, textile, and art departments, while concurrently boosting institutional capability, bridges this gap. Furthermore, in-house manufacturing is a beneficial training platform, which helps strengthen the student's abilities and boost employability.

Outsourcing carries procurement and delivery concerns that might interrupt academic events. Some deliveries have been incomplete and caused financial losses and operational delays. In-house production, by contrast, enhances control over quality, colour consistency, design integrity and durability that in turn bolsters institutional identity and minimises logistical hazards.

Finally, local manufacturing has wider economic benefits by supporting local textile businesses and indigenous materials, such as Kente and local weaves. Local value is generated, cultural skills are retained, and economic advantages flow within the home economy, in line with national ambitions for industrial growth.

6. Conclusion and Recommendations

6.1. Conclusion

The use of academic regalia at the GTUs is a clear sign of an attempt to bolster institutional credibility, identity, and autonomy in higher education. Academic gowns serve as tangible texts, imprinted with institutional histories, ideas, hierarchies, and goals. Based on institutional theory and design historical views, the em-

ployment of Ghanaian fabrics, symbols, and colour concepts indicates a steady process of indigenisation, from colonial imitation to culturally rooted institutional representation.

GTUs are gradually blending Western academic traditions and indigenous cultural features to form hybrid academic attire that represents both global standards and local qualities. Academic robes are sometimes decorated with Adinkra symbolism, Kente designs, and institutional insignia to represent hierarchy and institutional ideology. For example, ATU uses Nsroma and Nkyinkyim motifs to define levels of degrees; KsTU uses Kente in HND gowns and Adinkra emblems in leadership regalia; STU, TTU, and TaTU are mostly focused on institutional logos, and Kente is for higher administrative categories (STU, TTU). These confections represent the intentional localisation of academic attire within global academic traditions.

The findings also show that the early design innovations of the selected institutions have redefined the rules of academic regalia for the GTU sector. Making the design of a gown a conscious institutional strategy rather than a peripheral administrative function leads to cultural relevance, symbolic consistency, and institutional identity. On the other hand, the absence of oversight in the design and the subcontracting of the manufacture often decreases the symbolic importance and turns the garments into ceremonial things.

There is an equally strong economic rationale for local, in-house manufacture. The HTU, KsTU, and ATU examples demonstrate that institutionally owned gowns transform from normal expenditures to long-term assets that boost branding, minimise procurement risks, and create internal profits. In addition, production anchored in the fashion and textile department enhances experiential learning and institutional capacities and lowers the susceptibility to delays and quality differences associated with outsourcing. Moreover, local manufacturing is a catalyst for wider economic development through the strengthening of domestic textile industries, protection of local crafts, and support of the national plan for import substitution and expansion of the creative industries. Academic regalia, therefore, becomes a site for economic, cultural, and instructional values that reinforce institutional autonomy and national identity.

Informed by Howard (2023), this research presents a theory-driven account of the history of academic regalia at GTUs from colonial mimicry to cultural innovation and institutional legitimacy. Drawing on institutional theory, innovation diffusion, and design history, this article presents a conceptual framework for studying gown variation and looks at a gown as a strategic tool for branding, cultural sovereignty, and legacy preservation. It is one of the first comprehensive theoretical frameworks in Ghanaian higher education to conceptualise academic gowns as mutable vehicles for identity building.

Yet the emphasis on document-based studies limits understandings of lived experiences, emotional implications, and informal interpretations of gown symbolism. The selection of technical universities also limits the broader generalisability

to Ghana and other post-colonial civilisations. Future study should use interviews, ethnography, and participatory design methodologies with students, administrators, and designers. Further comparative investigations across institutions and nations, along with empirical assessments of perception, inclusiveness, and psychological influence, would enrich the depth of knowledge in this area.

In conclusion, the academic gowns in Ghana are not merely ceremonial wear but are also indications of institutional power, cultural confidence, and changing self-determination in higher education. They are purposefully conceived, jointly managed and locally created, linked instruments of institutional maturity, tradition, and innovation.

6.2. Recommendations

GTUs are encouraged to adopt proposals aimed at creating academic gowns that reflect the country's identity and cultural richness. These strategies are intended to enhance branding, preserve history, and elevate the global visibility of technical higher education in Ghana through the following recommendations:

1) Formulate Institutional Design Regulations: Create thorough academic gown design and management regulations that delineate materials, colours, symbols, and manufacturing standards in alignment with institutional principles.

2) Establish Multidisciplinary Design Committees: Engage specialists in fashion, textile design, branding, and cultural studies in gown conceptualisation to guarantee aesthetic superiority and cultural significance.

3) Advocate for Local Production: Foster partnerships with Ghanaian textile businesses and university fashion departments to locally manufacture gowns, therefore promoting sustainability and economic empowerment.

4) Incorporate Cultural Symbolism: Integrate indigenous themes, such as adinkra symbols, kente patterns and others, and regional colour schemes, to enhance cultural representation and institutional distinctiveness.

5) Invest in Capacity Building and Funding: Allocate ongoing financial resources for gown design, manufacturing, and maintenance, and provide training for personnel to ensure innovation and quality control are maintained.

6) Evolution of Document Design: To safeguard institutional memory and guide future redesigns, preserve historical documents of gown design history, symbolism, and alterations.

By implementing these strategies, GTUs may shift from reliance on traditional academic attire to developing culturally relevant regalia that embody national identity, institutional pride, and global academic significance.

Consent for Publication

All authors have thoroughly evaluated the manuscript and hereby offer their assent for its publication. The main author's thesis provides the data presented in this article, so no additional institutional approval was required.

Data Availability

The data supporting this study are available from the lead author upon a reasonable request. The dataset is also archived in the University of Education, Winneba (UEW) institutional repository.

Conflicts of Interest

The authors declare no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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