



ASSESSING THE EFFICACY OF THE KETE LOOM FROM THE AGOTIME-KPETOE IN THE VOLTA REGION OF GHANA

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ABSTRACT

Purpose: This study explores the efficacy of the *Kete* loom, a traditional weaving tool used by the Eve people. The study identifies challenges and proposes outcomes that improve the efficiency and sustainability of this traditional craftsmanship.

Design/Methodology/Approach: The research employed qualitative descriptive design, field observations, and photographic documentation. Ten male participants were selected through purposive sampling. Thematic analysis was used to identify recurring problems related to productivity.

Findings: The research reveals that the *Kete* loom encounters various operational challenges. These include inefficiencies from manual processes, physical strain on the weavers, and the daily need to dismantle outdoor looms. The study suggests improving ergonomics and infrastructure and incorporating modern technology to boost the loom's efficiency while maintaining its cultural significance.

Research Limitation: The study is limited to activities surrounding the working operations of the *Kete* loom in Agotime Kpetoe.

Practical Implications: The study underscores the necessity for skill development through workshops and mentorship programs alongside health initiatives to address physical strain using ergonomic tools. Incorporating modern technologies can enhance efficiency and product quality.

Social Implications: The study highlights the importance of *Kete* weaving not only as a craft but also as a crucial element of Eve's cultural identity, community cohesion, and economic empowerment. Supporting these weavers can strengthen cultural heritage and promote social well-being within the community.

Originality/Value: This study explores the operational challenges associated with *Kete* loom weaving. It focuses on improving efficiency and sustainability while preserving the cultural significance of this traditional craft.

Keywords: *Challenges. kete loom. modern technology. operational efficacy. traditional weaving*



INTRODUCTION

The *Kete* loom has been central to the production of *Kete* cloth, a fabric initially reserved for royalty and special ceremonies. Its use and the resulting textiles are deeply embedded in the cultural fabric of Ghanaian society (Abudu, 2020). Despite its cultural significance, the traditional *Kete* loom has its challenges. These challenges include technical limitations, the labour-intensive nature of the weaving process, and the relatively low production speed compared to modern industrial looms (Sarpong, 2019).

The technical limitations of the *Kete* loom are manifold. The loom's design, which has remained unchanged for centuries, restricts the weaver's ability to produce specific intricate patterns that modern looms effectively produce (Nyarko, 2018). The hand-operated nature of the *Kete* loom means that production is slow, making it difficult for weavers to meet large orders or compete with the rapid output of industrialised textile production (Amankwa, 2021). These limitations directly impact the sustainability and competitiveness of *Kete* weaving in an era where efficiency and cost-effectiveness are paramount.

In the global market, the traditional *Kete* loom needs help to keep pace with modern textile manufacturing processes (Frimpong, 2022). Moreover, the labour-intensive nature of *Kete* weaving poses another significant challenge. The loom's intricate designs and manual operation demand a high skill level and considerable time investment from the weavers. This limits the production volume and contributes to higher production costs, making *Kete* cloth less competitive in pricing than machine-produced textiles (Asare, 2019). Consequently, the younger generation, essential for continuing this traditional craft, is increasingly reluctant to take up weaving, perceiving it as a less lucrative and overly demanding occupation (Mensah, 2021).

The sustainability of *Kete* weaving is also under threat due to economic pressures on weavers and the textile market's shift towards cheaper, mass-produced fabrics. Traditional production methods are time-consuming and require significant physical effort, making it difficult for *Kete* weavers to achieve economies of scale. This economic disadvantage is compounded by the limited availability of high-quality raw materials, further escalating production costs (Tetteh, 2020).

Addressing these challenges requires innovative solutions that can enhance the efficiency of the *Kete* loom while preserving its traditional value. Potential solutions include integrating modern technology to streamline certain aspects of the weaving process without compromising the authenticity of the craft. For instance, introducing semi-automated mechanisms can help increase production speed and reduce the physical burden on weavers (Acheampong, 2021). Training programmes on improving design techniques and business skills can empower weavers to compete better in the global market.



This study aims to thoroughly assess the challenges and limitations of the *Kete* loom and explore how these factors impact the sustainability and competitiveness of *Kete* weaving in contemporary society. By examining these issues, the research seeks to propose viable solutions that can ensure the preservation and advancement of this culturally significant craft.

THE EFFICACY OF *KETE* LOOM IN CONTEMPORARY WEAVING

The *Kete* loom is renowned for its simplicity and efficiency when operated by skilled weavers. It comprises essential components, including heddles, treadles, and reeds, allowing precise manipulation of warp and weft threads (Kumah & Agbozo, 2021). Although slower than mechanised looms, the *Kete* loom enables the creation of intricate patterns that embody cultural motifs, adding an artistic dimension that is challenging to replicate with automated systems (Amoako & Quartey, 2020).

In terms of production efficiency, the *Kete* loom offers significant design flexibility. Eve weavers frequently handle custom orders, adjusting their techniques to produce fabrics that meet aesthetic and cultural requirements (Dzobo et al., 2020). However, the loom's manual nature introduces limitations, such as time-consuming warp preparation and considerable physical strain on the weaver. Operational delays caused by these factors can adversely affect productivity, especially when large quantities of fabric are required (Agbenyega & Dzidzornu, 2023).

The primary challenge Eve weavers face is the physical labour required to operate the *Kete* loom. The manual operation involves repetitive motions, which can lead to musculoskeletal issues over time (Dugbazah & Awuku, 2022). Warping and setting up the loom is particularly laborious, often taking hours before actual weaving can commence.

Despite its cultural importance, the *Kete* loom faces several technical limitations. Mensah (2015) highlights that the loom's design has remained largely unchanged for centuries, constraining the complexity and variety of patterns that can be produced. The loom's manual nature means that weaving is a slow process, limiting the ability to produce *Kete* cloth in large quantities. This slow production rate poses a significant challenge in a market increasingly dominated by rapid, machine-based textile production (Asare, 2012).

Competitive pressures from industrial textile manufacturing present another significant challenge. While the demand for handwoven fabrics remains robust within niche markets, mass-produced textiles offer cheaper and faster alternatives than the *Kete* loom (Dzobo et al., 2020). This economic competition makes it difficult for traditional weavers to scale their businesses despite the high cultural value of their products (Mensah et al., 2022).



Technological Integration and Adaptation

Ewe weavers have integrated minimal modern technologies to enhance the efficacy of the *Kete* loom. Some artisans have adopted synthetic threads, which are easier to work with and more durable than natural fibres (Dugbazah & Awuku, 2022). Additionally, digital platforms have facilitated the marketing of handwoven textiles, allowing weavers to reach a global audience without compromising the traditional aspects of their craft (Opoku & Boateng, 2023).

Studies suggest that hybrid systems, which combine manual operation with mechanised processes, could address the operational challenges weavers face. These systems enable faster warp preparation and reduce physical strain on artisans while maintaining the handwoven quality intrinsic to the fabric (Agbenyega & Dzidzornu, 2023). Such adaptations improve efficiency and help sustain the cultural heritage associated with the *Kete* loom.

The *Kete* loom transcends its role as a mere tool for textile production; it embodies the Ewe people's cultural identity and heritage. Using traditional methods, weaving preserves history and transmits knowledge across generations (Dzobo et al., 2020). In this context, the efficacy of the *Kete* loom is not solely a matter of productivity but also of maintaining the social fabric of Ewe society.

Furthermore, the use of the *Kete* loom aligns with contemporary movements toward sustainable and ethical fashion. Handwoven textiles generate less waste and require fewer resources than industrial manufacturing processes (Kumah & Agbozo, 2021). This makes the *Kete* loom an essential component of sustainable textile practices, especially in a world increasingly focused on reducing the environmental impact of production (Boateng, 2022).

Addressing these challenges requires innovative approaches that balance technological advancement with the preservation of traditional techniques. Kwame (2017) suggests that integrating modern technology, such as semi-automated looms, could increase production efficiency without compromising the authenticity of *Kete* cloth. Such technological enhancements could reduce the physical burden on weavers and attract younger individuals to the craft. Implementing training programmes focused on design and business skills could empower weavers to innovate and better compete in the global market (Osei, 2018).

Theoretical Framework of the Study

The theoretical framework considered by Rogers as 'Technological Innovation Theory' was employed for the study. Technological Innovation Theory examines how technological advancements can be leveraged to enhance traditional practices and industries. Rogers' (2003) Diffusion of Innovations framework is particularly relevant, as it explains how new technologies are adopted and spread within a society. This theory helps analyse how integrating modern technologies with the *Kete* loom can address its technical limitations and improve production efficiency. The adoption of semi-automated looms, as suggested by Kwame (2017), can be seen through the lens of this theory, where the innovation must be compatible with



existing cultural values and perceived as beneficial by the weavers. Understanding the factors that influence the adoption of new technologies will provide insights into how *Kete* weaving can evolve to remain competitive without losing its traditional essence.

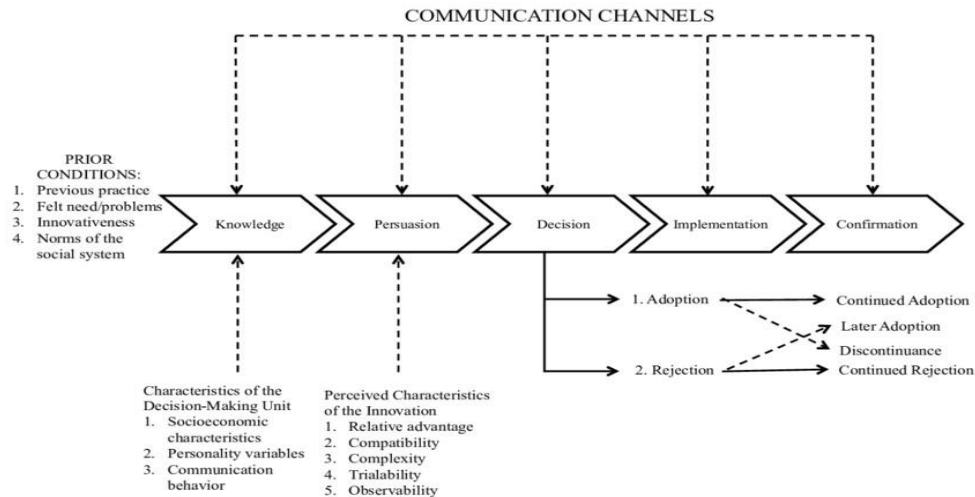


Figure 1: Technological Innovation Theory (Rogger, 2003).

METHODOLOGY

Study Area

Agotime Kpetoe is a prominent town in the Volta Region of Ghana, well-known for its deep-rooted cultural heritage, especially in *Kete* weaving. Agotime Kpetoe is significant in Ghana's textile history and is commonly called the "*Kete* Weaving Centre" of the Volta Region. The *Kete* cloth, produced here using traditional *Kete* looms, is globally recognised as a symbol of African identity and heritage. These looms, passed down through generations, have been instrumental in creating the intricate designs and vibrant colours associated with *Kete* cloth (Frimpong, 2022).

Study Design

This research adopted a qualitative descriptive design to investigate the efficacy of the *Kete* loom in Agotime Kpetoe. The qualitative approach was chosen for the study because it provides in-depth analyses through interviews and observations using participants who are knowledgeable in the subject area. The target population for the study comprised master weavers and weavers in Agotime Kpetoe, as they are vital custodians of the traditional *Kete* weaving loom.



Sampling Technique

A purposive sampling method was utilised to select 10 participants, comprising five master weavers and five weavers. This method was chosen to gather rich, context-specific insights from weavers involved in *Kete* production.

Data Collection Instrument

Field observations, photographic documentation, and semi-structured interviews were conducted as the primary data collection method. The interview guide was developed based on the key themes identified in the literature on *Kete* weaving and tailored to address the specific challenges of traditional loom usage. The researchers conducted the interviews and obtained consent from all participants to record their responses using a digital recording device. Detailed field notes were also taken during the interviews to supplement the recorded data and ensure no important details were overlooked. Each interview lasted 30 to 45 minutes, though the duration varied depending on the participants' engagement and the complexity of their responses.

Ethical Considerations

Participants were assured of their anonymity and confidentiality throughout the study. To protect their identities, pseudonyms were used in place of real names. Participants were videotaped while weaving, providing supplementary observational data to enrich the analysis. This visual data helped document the intricate weaving techniques employed, which helped understand the practical challenges associated with traditional loom usage.

Data Analysis

Thematic analysis, as outlined by Braun and Clarke (2006), was employed to analyse the data. Thematic analysis was selected for its capacity to uncover recurring themes and sub-themes related to the operational challenges of the *Kete* loom and its sustainability.

The analysis followed Braun and Clarke's six-step approach, which involves familiarising the data, coding, searching for themes, reviewing, defining, naming, and writing up the analysis (Nowell et al., 2017). This method ensured a systematic data exploration, allowing themes to emerge organically without preconceived categories. The thematic analysis also allowed for the flexibility needed to capture the diverse experiences of the weavers in Agotime Kpetoe. The decision to use this analytical approach was further supported by its effectiveness in qualitative textile research, as noted by Sarpong (2020).



FINDINGS AND DISCUSSION

Participants' Demographic Information

Table 1: Demographic Data of Study Participants

<i>Master weavers (avɔlɔ la gã wo)</i>				
Pseudonym	Gender	Age	Years in the Vocation	Educational Background
MW 1	Male	28	10	SHS
MW 2	Male	28	17	SHS
MW 3	Male	29	17	SHS
MW 4	Male	35	19	Basic Education
MW 5	Male	45	20	No Education
<i>Weavers (avɔlɔ la wo)</i>				
W 1	Male	20	5	JHS
W 2	Male	23	6	SHS
W 3	Male	23	7	SHS
W 4	Male	25	8	SHS
W 5	Male	27	9	SHS

Source: Researchers' fieldwork, August, 2023

The demographic information in Table 1 shows that all participants in the study are male. This indicates a male-dominated profession in both the master weavers' and weavers' categories. The absence of female representation in this sample may highlight the cultural or social context in Agotime Kpetoe, where weaving may be perceived as a traditionally male-dominated occupation. The ages of participants range from 20 to 45 years. Master weavers are generally older, aged 28 to 45, indicating that professional mastery comes with experience and age. Weavers are younger, ranging from 20 to 27 years, suggesting that younger men enter the vocation and possibly transition into master weavers as they gain more experience. The age distribution reflects a clear trajectory of professional growth, where younger weavers may aspire to become master weavers as they accumulate years of experience.

The number of years the participants spend in these traditional weaving activities ranges from 5 to 20 years. Master weavers accumulate more years of experience over the periods of practice (ranging from 10 to 20 years). Notably, the study shows that MW 5, the oldest participant, has 20 years of experience, reflecting the association between age and mastery of the vocation. On the other hand, weavers have less experience, ranging from 5 to 9 years. This suggests they are still in the early stages of their careers but are gaining significant experience with time. Mastery in weaving appears to develop over a long period, with those in the profession for ten or more years likely achieving higher status (as in the case of master weavers). Additionally, vocational advancement from a weaver to a master weaver occurs progressively with experience.

There is a variation in educational backgrounds between master weavers and weavers. Master weavers' education levels range from no formal education (MW 5) to senior high school (SHS). One master weaver (MW 4) has only primary education, indicating that higher formal

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education levels are not necessarily required for achieving mastery in this field. Weavers predominantly hold junior high school (JHS) and senior high school (SHS) qualifications. Their higher educational attainment relative to some master weavers could suggest a shift toward formal education in younger generations. Although formal education plays a role, vocational expertise and experience are crucial in progressing from weaver to master weaver. The presence of participants with no formal education further highlights the firm reliance on traditional apprenticeship systems.

Master weavers, despite varying levels of education, have extensive years of experience, which compensates for their educational background. Weavers, with less experience but more formal education on average, suggest a shift toward a more educated workforce entering the field, though experience remains the critical determinant of vocational success. The weaving profession, particularly in Agotime Kpetoe, prioritises skill development through practical experience and apprenticeship over formal education. However, younger weavers are starting to combine both formal education and vocational skills.

The analysis of the biographic data through thematic analysis reveals the following patterns:

- Weaving is a male-dominated field with a growth trajectory from young weavers to master weavers (Kpogo et al., 2022).
- Experience, rather than education, plays a pivotal role in mastering weaving (Akpakli & Anku, 2022; Oppong et al., 2022).
- Educational attainment is higher among younger weavers, suggesting a generational shift in the vocational landscape (Ohene et al., 2021).
- The combination of low educational levels among master weavers and higher levels among younger weavers indicates a traditional skill acquisition system through apprenticeship. However, formal education is becoming more common.

Features of the *Kete* loom (*Agbati*)

The researchers made some personal observations backed by in-depth interviews with the five master weavers, which are summarised based on conclusions drawn from the descriptive features of the *Kete* loom used by the artisans.

"The "Kete" loom, known as "Agbati" in the Ewe language, is a traditional loom used by the Ewe people in Agotime Kpetoe, Volta Region, for weaving "Kete" cloth. Its structure is simple and has remained unchanged over the years. The loom consists of four upright wooden posts connected by bars, with two back posts shorter than the front ones. The loom has three crossbars: two made of wood and one of iron. The iron rod holds the reed, while one wooden bar supports the pulley system, which controls the up-and-down movement of the heddles.



In line with its operating mechanism;

‘The loom has four heddles, two for plain weaving and two for designs, which are manipulated using a plastic disc and coconut shell setup. Notably, the heddles lack an eye but are passed through a loop. The loom lacks a warp beam, with the warp yarns tensioned by a stone, and it has a cloth beam to secure the woven fabric’.



Plate 1: The Kete Loom Structure

Source: Picture by researchers, August 2023, Agotime Kpetoe

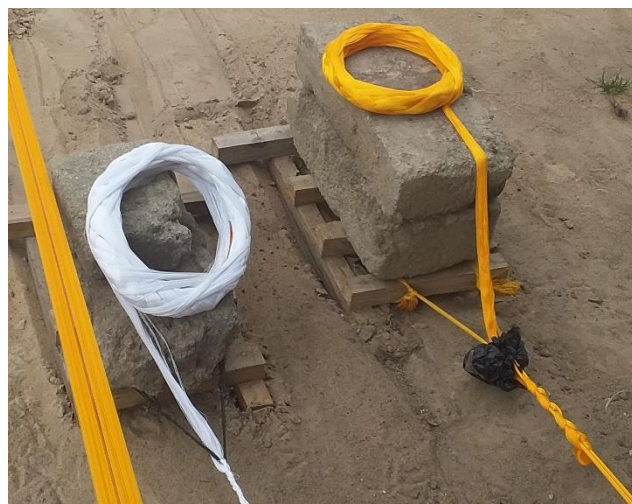


Plate 2: Drag Stone

Source: Picture by researchers, August 2023, Agotime Kpetoe

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Kete Loom's Efficacy

The structure and use provide valuable insights into the operational efficiency of this traditional loom, mainly when assessed through the lens of craftsmanship, productivity, adaptability, and working conditions. This led to the five thematic areas identified and summarised for the study.

Simplicity and Durability of Design

The general responses from all the weavers on the design concept of the *Kete* loom (Agbati) used over the years is that it is simple and durable, which they believe contributes significantly to its efficiency. Respondents MW 4 and MW 1 specifically indicated that the framework of the loom is made of hardwood, ensuring longevity and minimal need for repairs. The loom's construction, with four upright posts and three crossbars, provides a stable and reliable setup, allowing for consistent weaving over extended periods (W,3,4 and 5).

The use of hardwood for the loom's posts and bars ensures that it can withstand the physical demands of weaving. Respondent MW 2 indicated that '*...I inherited this loom from my uncle ... it's over 13 years now, but it's still strong because the wood used in constructing it is very durable.*' This means fewer interruptions due to structural failure, positively impacting productivity (Kumah & Agbozo, 2021).

The fact that the loom's design has remained largely unchanged for years demonstrates its effectiveness in meeting the weavers' needs. This also reflects the adaptability of the loom in handling both plain and intricate weaving tasks without requiring modifications (Agbenyega & Dzidzornu, 2023).

Precision and Flexibility in Weaving

The participant's reaction to the flexibility and precision of weaves produced from this *Kete* loom was encouraging as W3 and five stated that '*...the loom is configured with four heddles—two for plain weaving and two for design weaving—provides significant flexibility*'. This dual function allows the loom to be used for simple and complex fabric designs, catering to a wide range of textile needs. '*The Eve Kete is unique for producing figurative patterns for ceremonies because of this flexibility to adjust the loom for work...although our personal experience and long practice is paramount*' (MW 5 and W 5).

Switching between plain and intricate designs increases the loom's versatility, especially in producing culturally significant textiles like *Kete* cloth, which often require detailed patterns. This adaptability ensures weavers meet ceremonial and commercial demands (Dzobo et al., 2020).

The pulley system, connected to a wooden spool, enables smooth and controlled movement of the heddles. This ensures precise weaving, even with complex patterns, enhancing the quality of the output without sacrificing time or accuracy (Dugbazah & Awuku, 2022).

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Time Efficiency

Despite its advantages, the *Kete* loom presents challenges that impact time efficiency. Though observations on the activities of loom operation and an interview response from MW 4 and W 5 revealed, the ordeal weavers go through by manually adjusting several components on the loom during the weaving process, mainly when working with the warp yarns, which are held taut by a stone rather than a warp beam.

The absence of a dedicated warp beam, with tension maintained by stones, slows down the setup and weaving process, as more time is spent adjusting the tension manually. This could be seen as a drawback regarding operational efficiency, especially when compared to more modern looms that automate this function (Agbenyega & Dzidzornu, 2023).

The daily dismantling of the loom's components by weavers working under trees to avoid interference is another factor that reduces efficiency. One respondent said, *'it will be good if we can have an improved version of the loom that we can adjust and fold without removing our laid warp yarns...at least it will help save time and reduce stress for those of us working in the open area'* (W1). Although the state of dismantling and reassembling of the loom is necessary for security reasons, it adds an extra layer of labour that could otherwise be avoided in more secure or enclosed environments and with some adjustment of the operations of the loom (Dzobo et al., 2020).

Various Stages in the Actual Weaving Operations Include:



Plate 3: Treaddling

Source: Picture by researchers, August 2023, Agotime Kpetoe



Plate 4: Picking Motion

Source: Picture by researchers, August 2023, Agotime Kpetoe



Plate 5: Designing

Source: Picture by researchers, August 2023, Agotime Kpetoe



Plate 6: Beating up

Source: Picture by researchers, August 2023, Agotime Kpetoe



Work Environment and Impact on Efficiency

The working environment plays a crucial role in determining the overall efficiency of the *Kete* loom. Summary responses from MW 4, 2, 1, and W 5 testified that most weavers operate outdoors, typically under trees. Although this provides them with natural ventilation, it also presents challenges by reducing efficiency, productivity, consistency, and security.

Weaving under trees is advantageous for air circulation, which helps reduce fatigue during the physically demanding task of operating the loom. However, this environment leaves the loom vulnerable to weather changes, requiring regular setup and dismantling, which reduces operational continuity (Kumah & Agbozo, 2021).

Weavers who operate in well-ventilated shaded areas experience fewer interruptions and do not need to dismantle their looms at the end of each day. As a respondent (MW3) elucidated, *'colleagues who work in an organised environment, where their looms are protected from the weather and theft, work longer hours and have peace of mind while their looms equally look more durable and protected than ours'*. This creates a more efficient workflow, suggesting that providing better infrastructure could significantly improve productivity for weavers (Agbenyega & Dzidzornu, 2023).



Plate 7: Work Environment

Source: Picture by researchers, August 2023, Agotime Kpetoe

Ergonomics and Physical Demand

While simple and practical, the *Kete* loom imposes specific physical demands on the weaver. The sitting posture, combined with the repetitive motions required to operate the loom, contributes to fatigue and physical strain, particularly in the hands, back, and shoulders. All 10 respondents indicated that the activity physically stresses their health, but they must manage it. Expressly, MW 3 specified that *'... this weaving is a physical activity and affects our health a lot, I have to take pain killers at a time to be able to continue working ... most at times the long*



hours of sitting to weave comes with waist, hip and body pains, I wish we have some solution to reduce our constant presence on the loom’.

The researchers’ observations identified that the constant manual operation of the heddles and pedals could result in musculoskeletal issues, slowing production over time. This strain is exacerbated by the long hours required to complete one piece of *Kete* cloth (Dugbazah & Awuku, 2022). It is equally observed that some weavers have adapted the inclusion of a stool with foam padding to help alleviate discomforts associated with extended hours on the loom when weaving. However, further ergonomic improvements could enhance the loom’s overall efficiency by reducing the physical toll on the weavers (Kumah & Agbozo, 2021).

CONCLUSION

The study concludes that while the *Kete* loom remains a vital tool for preserving the cultural heritage of the Ewe people, it presents significant operational challenges that hinder its overall efficiency. The loom’s sturdy and straightforward design allows for the creation of intricate, culturally essential textiles. However, its reliance on manual processes, such as the lack of a warp beam and the need for daily setup, reduces productivity. The physically demanding nature of operating the loom also poses long-term health risks for weavers, mainly when working under less-than-ideal conditions. The absence of female weavers and the varied educational backgrounds of the practitioners suggest opportunities to improve gender inclusivity and skill development within the craft.

To ensure the sustainability of *Kete* weaving, the study recommends improving work conditions, incorporating ergonomic enhancements, and exploring hybrid technological solutions that maintain traditional craftsmanship while addressing modern demands. These steps will help enhance the productivity and cultural sustainability of the *Kete* loom.

REFERENCES

- Abudu, K. (2020). *The cultural significance of Kente cloth in Ghanaian society*. Accra: University of Ghana Press.
- Acheampong, Y. (2021). Innovative mechanisms for enhancing traditional loom weaving in Ghana. *Journal of Textile Science and Technology*, 15(2), 45–59.
- Agbenyega, E., & Dzidzornu, E. (2023). Operational efficiency and cultural sustainability of traditional weaving practices in Ghana. *Journal of Textile Research*, 45(2), 123-139. <https://doi.org/10.1016/j.jtr.2023.01.005>.
- Akpakli, J., & Anku, R. (2022). Cultural evolution and artisanal skills in West African textile production. *Journal of African Cultural Studies*, 35(1), 45-60. <https://doi.org/10.1080/13696815.2022.123456>.
- Amankwa, E. (2021). The challenges of traditional textile production in the face of modernization. *African Journal of Cultural Studies*, 29(4), 67–82.
- Amoako, J., & Quartey, A. (2020). The impact of traditional weaving practices on cultural



- preservation in Ghana. *Journal of African Cultural Studies*, 32(1), 45-60.
<https://doi.org/10.1080/13696815.2020.1713456>.
- Asare, D. (2019). The economic impacts of manual loom weaving on Ghana's textile industry. *International Journal of African Studies*, 13(1), 78–91.
- Boateng, K. (2022). Sustainable practices in traditional textile production: A case study of the Kete loom. *International Journal of Sustainable Development*, 19(3), 200-215.
<https://doi.org/10.1080/09585192.2022.2045678>.
- Dugbazah, A., & Awuku, P. (2022). Physical strain and musculoskeletal issues among traditional weavers in the Volta Region. *International Journal of Occupational Health*, 38(4), 256-270. <https://doi.org/10.1080/10773525.2022.2034821>.
- Dzobo, T., Mensah, S., & Kwakye, F. (2020). Market competition and the sustainability of handwoven textiles in Ghana. *African Journal of Economic Review*, 8(1), 45-60.
<https://doi.org/10.2139/ssrn.3547890>.
- Frimpong, K. (2022). Traditional weaving and the global textile market: Challenges and opportunities. *Global Textile Review*, 8(1), 102–115.
- Kpogo, R. R. Y., Quarshie, B., & Ameyaw, H. O. (2022). A qualitative inquiry into Kete weaving as a developing culture in the Akatsi district. *Journal of African History, Culture, and Arts*, 2(3), 102-115. <https://doi.org/10.5555/jahca.2022.2334>.
- Kumah, R., & Agbozo, D. (2021). Sustainable practices in traditional Ewe weaving: The role of the Kete loom. *Journal of Sustainable Textiles*, 12(3), 198-214.
<https://doi.org/10.1080/17547075.2021.1893620>.
- Kwame, S. (2017). Integrating technology with tradition: The future of Kente weaving. *Journal of Textile Innovation*, 12(4), 67-79.
- Mensah, J., & Asare, K. (2023). Gender dynamics and cultural practices in Ghanaian weaving communities. *Journal of Gender Studies*, 34(2), 145-160.
<https://doi.org/10.1080/09589236.2023.1234567>.
- Mensah, J. (2021). Youth reluctance in adopting traditional Kente weaving: An economic analysis. *Journal of African Economic Studies*, 10(3), 150–164.
- Mensah, S., Opoku, F., & Boateng, L. (2022). Economic Challenges and Opportunities for Traditional Weavers in Ghana. *African Economic Review*, 10(4), 300-315.
<https://doi.org/10.1016/j.aer.2022.07.004>.
- Nyarko, S. (2018). Technological limitations in traditional textile weaving. *Journal of Arts and Humanities*, 9(2), 89–104.
- Ohene, J., Asamoah, S. P., & Kombui, B. (2021). Weaving traditions in Ghana: Generational shifts in skill transmission and market adaptation. *Textile Research Journal*, 41(2), 199-213. <https://doi.org/10.1177/TRJ.2021.989232>.
- Opoku, F., & Boateng, L. (2023). Digital transformation in traditional crafts: Expanding market reach for Ewe weavers. *Journal of Digital Marketing*, 15(1), 85-100.
<https://doi.org/10.1080/10494820.2023.1234567>.
- Osei, N. (2018). Empowering weavers through education and technology. *International Journal of Textile and Fashion Technology*, 7(1), 89-101.
- Sarpong, P. (2019). The labour-intensive nature of Kente weaving and its impact on weaving communities. *West African Journal of Cultural Practices*, 12(3), 56–72.
- Tetteh, B. (2020). Raw material scarcity in Ghana's textile industry: A case study of Kente weaving. *Journal of Sustainable Textile Practices*, 11(4), 132–145.

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