Journal of
Marketing Studies
(JMS)

COMPARATIVE ANALYSIS OF THE USE OF PATTERN DRAFTING AND FREE HAND CUTTING METHODS AMONG TAILORS AND APPRENTICES IN KENYA AND GHANA

Dr. Dymphna Bakker-Edoh, Dr. Johnson Kofi Kassah, Gudila Ancelm Kereth, Dr. Elizabeth B. Oigo and Prof. Keren G. Mburugu

CARI Journals

Journal of Marketing Studies

Vol.4, Issue No.1, pp 1 – 16, 2021

www.carijournals.org

COMPARATIVE ANALYSIS OF THE USE OF PATTERN DRAFTING AND FREE HAND CUTTING METHODS AMONG TAILORS AND APPRENTICES IN KENYA AND GHANA

[1*]Dr. Dymphna Bakker-Edoh
Dept. of Fashion Design and Textiles, Koforidua Technical University
Corresponding Author's email: dymphna.bakker-edoh@ktu.edu.gh

[2]Dr. Johnson Kofi Kassah
Fashion design and Textiles Department, Ho Technical University

[3]Gudila Ancelm Kereth,
Department of Food Technology, Nutrition & Consumer Sciences, Sokoine University of Agriculture, Morogoro, Tanzania
Corresponding Author's email: gkereth@sua.ac.tz

[4]Dr. Elizabeth B. Oigo
Department of Fashion Design and Marketing, Kenyatta University, Nairobi, Kenya.

[5] Prof. Keren G. Mburugu
Department of Fashion Design and Marketing, Kenyatta University, Nairobi, Kenya.

Abstract

Purpose: The study aimed at evaluating comparative analysis of the use of pattern drafting and free hand cutting methods among tailors and apprentices in Kenya and Ghana.

Methodology: For this research, the study used a cross-sectional descriptive design. The target population was tailors in Githurai, Kenya and Dwa Kitiwam, Koforidua, Ghana. A sample was drawn randomly from this sampling frame which comprised of 30 tailors, with 15 being from Githurai, Kenya and 15 from Dwa Kitiwam, Koforidua, Ghana. This study further used questionnaires to collect primary data. Data obtained from the field was coded and filtered and systematically sorted according to the questionnaire objects using frequency distributions and proportions. With the aid of the Social Science Statistical Package (SPSS) version 26, the researchers used both descriptive and inferential statistics to analyze the results.

Results: Ghana is more inclined to pattern drafting than free hand cutting compared to Kenyan tailors who are inclined to free hand cutting as much as pattern drafting. Proving that the individuals vary in their views on free-hand cutting and pattern drafting revealed that the tendency of dressmakers and tailors for free-hand cutting was affected by the technique with which they were educated and the simplicity associated with free-hand cutting processes.

Unique Contribution to Theory, Practice and Policy: Instructors should cultivate the utilization of pattern drawing to acquire a deeper understanding of the skills of pattern drafting.

Keywords: *pattern drafting, free hand cutting, tailor apprentices*

1.0 INTRODUCTION

Apparel speaks louder than words, so more fitting apparel helps improve one's confidence. Apparel, style and fit specifically decide whether or not a customer is pleased (Dove, 2016). In essence, this relates to sufficient awareness of the choice of clothing that suits and makes one feel relaxed given the type of procedure used to manufacture the apparel and the result of the style. Free-hand cutting and pattern drafting remain the cornerstone of ways of modeling clothing in the fashion business, according to Obinnim and Pongo (2015), with combinations of fit and model modifications.

Many operations require the development of apparel. The appearance and fit of clothes are heavily dependent on a basic method employed in the building process (Kumar 2012). In apparel production, the use of free-hand cutting to produce apparel is an initial step. Another earlier step of clothing making is the use of patterns. It is an art that has developed into a professional technological method for decades. Today, patterns have been developed to execute time-consuming routine activities easily, enabling clothing production firms to keep pace with the fast-moving fashion world.

Prior to the technological revolution, pattern drafting was mainly used by the elite so fashion designers had to work extra hard to develop designs using their customers' personal dimensions. Standardized designs were basically used during the industrial revolution to manufacture ready-to-wear clothes (Aldrich, 2014). The use of uniform designs initially resulted in badly fitting clothing, such as boxy men's suits and poor fitting skirts (Anikweze, 2013). However, pattern drafting has been effectively converted from customization to standardization after considerable innovation and standardization sizes (Anderson, 2011).

All through the globe, the collective and cultural traditions of people shift over time, and African nations are no different. Nevertheless, in countries such as African countries, where different ethical classes, different cultural values, and cultural standards can negatively influence the process of fashion change, the pace of fashion change might be less vibrant. Media that offer instant access to activities around the globe, management opinions and the availability of modern networking technology are other influences that could affect fashion transition (Amankwah, Howard & Sarpong, 2012).

2.0 LITERATURE REVIEW

In African nations, today's young people have their clothing patterns heavily inspired by European and American clothing styles. These international textile fashions influences have stripped Ghana of its typical local fashion and clothing types. In the seventeenth century in Ghana and Kenya, the type of clothes and manner of dressing must have been intricate and complicated and people then dressed depending on the rank and status of the person (Dove, 2016).

Most of the time, pattern drafting is correlated with clothing. It is a type of drafting used to create a graded paper pattern for sewing, across a series of stages. A pattern maker transforms human details into a sequence of straight lines and curves on design paper using body dimensions. These lines and curves dictate how the garment is broken down into parts at subsequent periods, cut and checked for comfort, and eventually transformed to a disposable pattern. Basic pattern drafting techniques and stages differ from pattern maker to pattern maker, based on the desired methodology of each practitioner, any software used, and whether the pattern is designed for eventual mass production.

Therefore, the use of free-hand cutting does not require much accuracy, scientific and professional training; it seems to be comfortable for casual fashion designers and tailors in Ghana (Obinnim & Pongo, 2015). According to Shailong and Igbo (2009), the free-hand method of building apparel will absolutely ruin the apparel, thus wasting the cloth. Furthermore, freehand cutting takes time and is sluggish, so it cannot be done easily for mass production. In certain circumstances, free-hand cutting has resulted in improperly tailored clothes and quarrels between dressmakers and their customers. In order to increase their income, many dressmakers learn and use sewing skills as hobbies or part-time work. They are really distracted and do not find the time or commitment to develop more in-depth expertise or be more professional (Gizeski, 2009). Many casual dressmakers and tailors have been found to tend to use free-hand cutting when stitching because it is a quicker way of producing clothes without taking into account its fit (Efajemue & Lily, 2011). Again, the researchers claimed that garments made from pattern drafting are made to suit well and to the preference and exact dimensions of the purchaser. While the free-hand cutting technique is less time-consuming and stress-free to

master, in terms of clothing fit and design adjustment, it does not offer the best results. Pattern drafting, though, which takes more time, results in improved clothing fit, modifies styles and suits consumers better.

Free-hand cutting is a way to cut a clothing style directly onto the fabric without using a pattern (Efajemue & Lily, 2011). Other than ready-to-wear garments, many types of clothing worn these days are typically made from free-hand cutting. This is because, in comparison to the more expensive pattern drafting, most Ghana fashion designers are accustomed to this technique. Foster and Ampong (2012) mentioned that nothing has been done regarding free-hand cutting records. Shailong and Igbo (2009) defined free-hand cutting as an algorithm relying on a calculation to cut the fabric labeled with chalk and cut direct without the need of a paper pattern. In free-hand cutting, the applicant's scale is used directly on the cloth. The fabric is usually lost if a costume designer or a tailor makes an error by using the free-hand cutting process.

The inaccuracy of garments sewn using the free-hand technique is not known to most casual dressmakers and tailors (Foster & Ampong, 2012). As a consequence, they choose free cutting over other stitching methods that seem easier to them, but when the clothing is made, they often face a lot of issues in terms of fit for their buyers. The methodology of clothing design has a significant impact on the result of the fit of apparel. Since the technique is appropriate for a specific fit and design and alteration, all techniques need to be familiarized with by the dressmakers and tailors to facilitate the use of a technique where it is ideally suited. However, if dressmakers and tailors are oblivious of the impact of practice on the result of the clothing, there would be further disputes with consumers, leading to cost consequences, market collapse and material waste.

It has been noted that the industry of informal dressmakers and tailors is growing rapidly in Ghana. Limited professional know-how on pattern design skills to ensure the clothing comes out with a distinctive look and better fit continues to face problems with its use (Efajemue & Lily, 2011). A research by Kinuthia (2010) showed how, due to the absence of education and skills, casual dressmakers and tailors in Kenya face obstacles in apparel production. The goal of the study was to explore the challenges facing informal dressmakers in Kenya while making clothing construction. The thesis used descriptive designs for analysis and presented the targeted

dressmakers and tailors with questionnaires. The analysis revealed that, particularly among micro-enterprises, the shortage of education and training as the key contributors of apparel creates challenges. However, the research did not look at other influences that impacted the construction of clothing, such as age and experience, which are seen to have a substantial impact on the result of the apparel and influence the process or procedure followed.

The belief is that sufficient knowledge of pattern drawing and free-hand cutting skills will improve the trust of informal dressmakers and tailors, thereby increasing their company's revenue. Another research by Stone (2013) affirms that apparel design, manufacturing, distribution, promotion, retailing, advertisement and networking, publishing and consultancy are other obstacles, as well as the need for innovation in the Canadian profession. The entire spectrum of the textile industry was taken into account in the analysis, although the findings were significant, it cannot be replicated to have the same effects on other sub-sectors such as casual dressmakers.

3.0 METHODOLOGY

For this research, the study used a cross-sectional descriptive design as it has the value of asking the opinions of the respondent on the existence of the condition as it occurred at the time of this research (Creswell, 2012; Mugenda, 2008). The design is an easy way to use questionnaires to obtain information from a wide number of individuals within a limited amount of time. For this report, the survey design was considered acceptable as it has the benefit of finding the opinions of informal dressmakers and tailors on the use of pattern drafting and free-hand cutting in the creation of clothing. It permitted both quantitative and qualitative approaches to be used in the analysis. This paved the way for a concept under investigation to be properly established. The use of these techniques provided the ability to provide in-depth details and the deficiency of one technique is offset by the intensity in another technique (Creswell, 2012).

The target population was tailors in Githurai, Kenya and Dwa Kitiwam, Koforidua, Ghana. A sample was drawn randomly from this sampling frame which comprised of 30 tailors, with 15 being from Githurai, Kenya and 15 from Dwa Kitiwam, Koforidua, Ghana. This study further used questionnaires to collect primary data similarly to the previous research projects. Questionnaires containing closed and open-ended questions was issued to procurement staffs in

the university. The pilot study was conducted at Githurai and Dwa Kitiwam. To exclude outliers or inconsistent data, data obtained from the field was coded and filtered and systematically sorted according to the questionnaire objects using frequency distributions and proportions. With the aid of the Social Science Statistical Package (SPSS) version 26, the researchers used both descriptive and inferential statistics to analyze the results.

4.0 RESULTS

The analysis of the findings was done in relation to pattern drafting and free hand cutting methods that are commonly used among the tailors in Ghana and Kenya. The study aims at doing a comparative analysis of the two methods applied in the two countries. The number of the respondents in the two countries are equal and randomly selected to minimize bias in the comparative analysis. The assessment of the tailors' use of pattern drafting and free hand cutting methods was done on a 5-point Likert scale.

4.1 Descriptive analysis

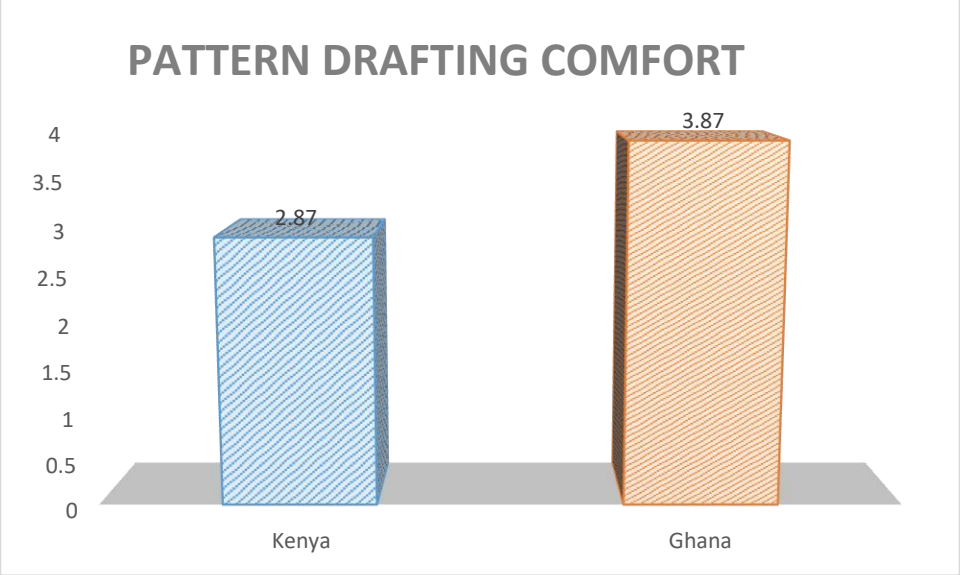

Figure 1 Comfort in using pattern drafting

The research reveals that the pattern drafting ease and comfortability of use in both nations is high as revealed by high mean values of 2.87 in Kenya and 3.87 in Ghana. Moreover, the use of patter drafting is more prevalent in Ghana as compared to Kenya. Free hand cutting practices is also analyzed and presented in Figure 2.

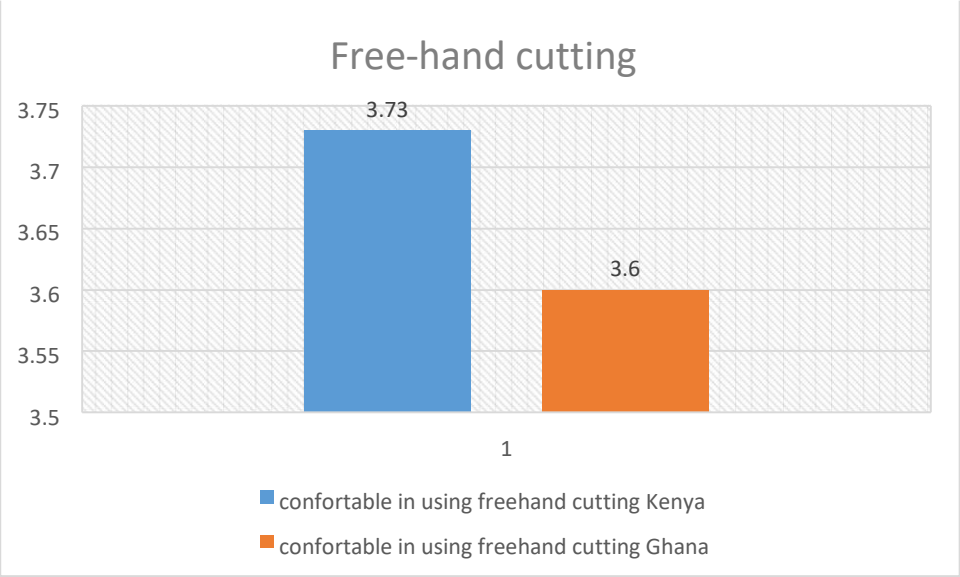

Figure 2 Free hand cutting comfort of use

Findings in Figure 2 reveal a high adoption of free hand cutting practices in both nations as illustrated by the mean values of 3.73 and 3.6 for the countries Kenya and Ghana respectively.

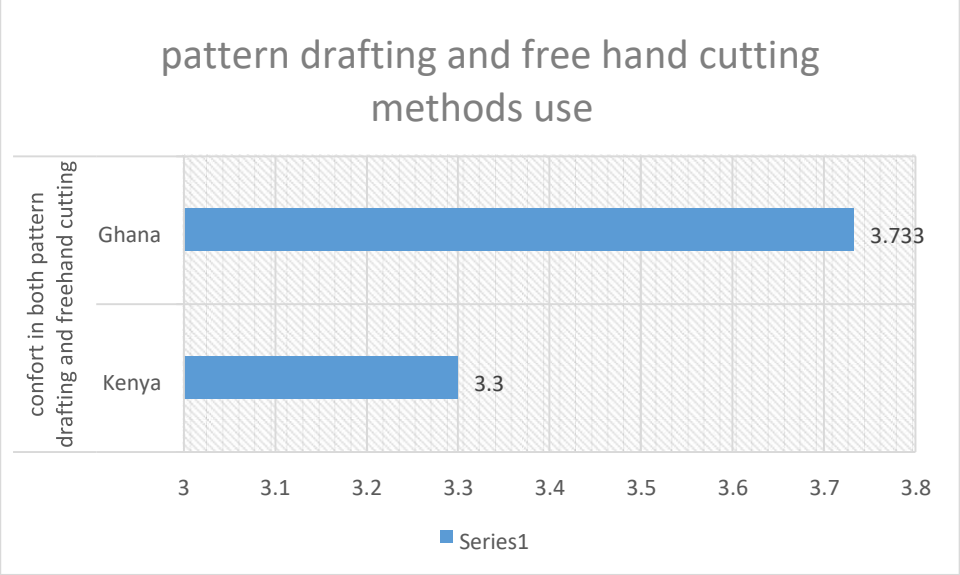

Figure 3 Pattern drafting and free hand cutting methods use

Figure 3 reveals that the Ghanaians are more inclined to using both methods of pattern drafting and free hand cutting as per the mean value of 3.733 and a high mean as well in Kenya where both methods are applicable as shown by the mean of 3.3.

The assessment of measurement accuracy in the pattern drafting method as an advantage towards better cloth fits was presented in Figure 4.

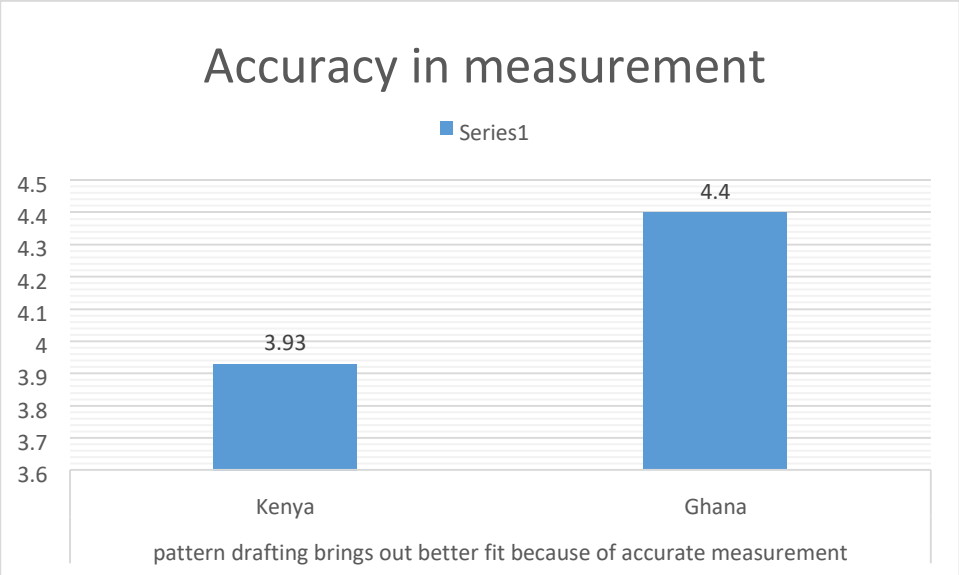

Figure 4 Pattern drafting accuracy in measurement

Findings show that tailors in Kenya had an agreement with accuracy in measurement when using pattern drafting at a mean of 3.93 and a strong agreement from the Ghanaian tailors at a mean of 4.4.

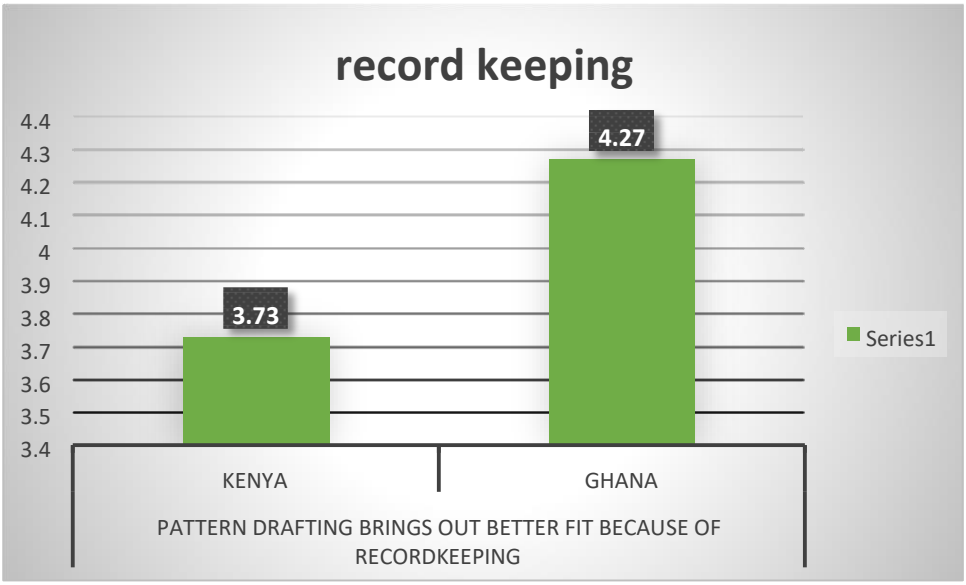

Figure 5 Record keeping advantage

Findings in Figure 5 reveals that majority of the respondents agree that record keeping brings out better fit in pattern drafting in both countries with mean values of 4.27 and 3.73 in Ghana and Kenya respectively. Moreover, Ghana have adopted pattern drafting techniques more compared to Kenya.

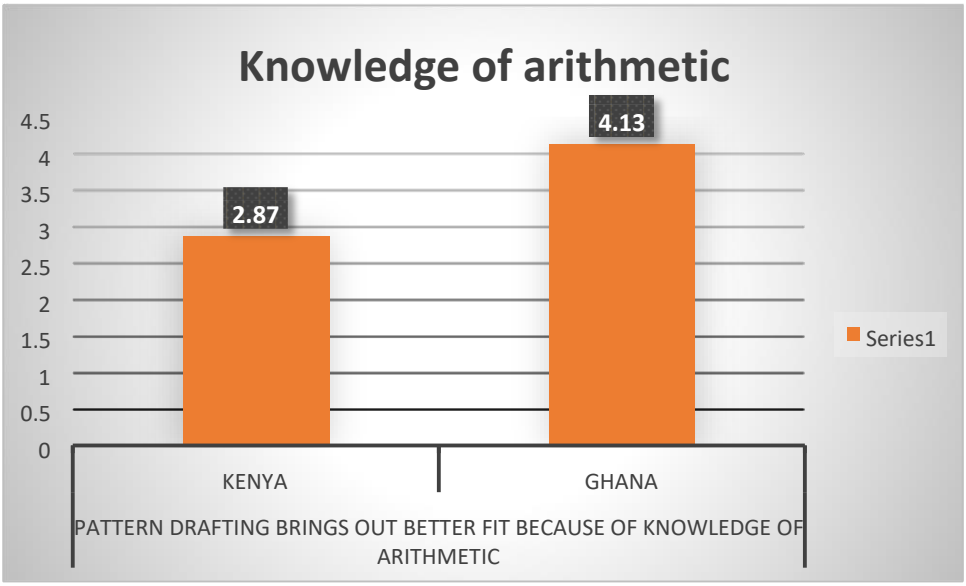

Figure 6 Knowledge of arithmetic

Figure 6 portrays that the knowledge of arithmetic is enhanced in adopting the pattern drafting methods as per the high mean values of agreement with the statement at 2.87 and 4.13 for Kenya and Ghana. Moreover, Ghanaians had a stronger agreement with the statement than the Kenyan tailors.

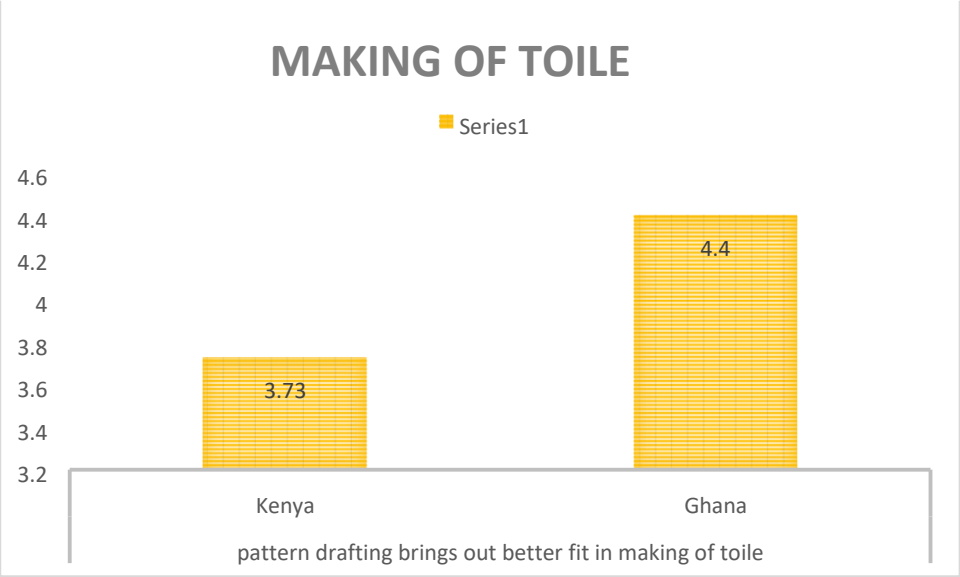

Figure 7 Making of toile in pattern drafting

Figure 7 reveals that the making of toile is best fit in pattern drafting with a strong agreement on the inquiry on the Kenyan and Ghanaians tailors. The mean on responses was high where among Kenyans was 3.73 and the Ghanaians had a mean of 4.4. Making of toile is more prominent in Ghana using pattern drafting.

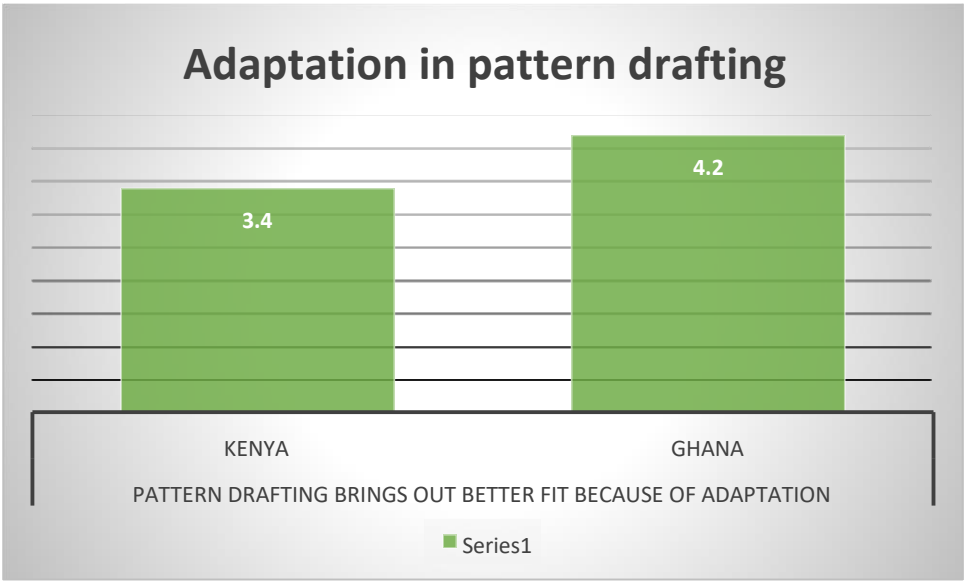

Figure 8 Adaptation in pattern drafting

Results in Figure 8 reveals that the adaptation in pattern drafting is an important feature that was agreed on by majority in both countries with mean of the responses being 3.4 and 4.2 for Kenyan and Ghanaian tailors respectively which therefore illustrates the importance of adaptation in the methods of pattern drafting.

4.2 Inferential

Independent-samples t-test was used to determine whether there is a statistically significant difference between the means in two unrelated groups of Ghanaian and Kenyan tailors. The findings are as presented in Table 1.

Table 1 T-test for testing mean differences

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Comfortable in pattern drafting	Equal variances assumed	6.54	**0.016**	-2.505	28	0.018	-1	0.399	-1.818	-0.182
	Equal variances not assumed			-2.505	21.718	0.02	-1	0.399	-1.829	-0.171
Comfortable in using free-hand cutting	Equal variances assumed	0.412	0.526	0.375	28	0.71	0.133	0.355	-0.595	0.861
	Equal variances not assumed			0.375	27.982	0.71	0.133	0.355	-0.595	0.861
Comfortable in both	Equal variances assumed	0.088	0.769	-1.659	28	0.108	-0.4333	0.2613	-0.9685	0.1018
	Equal variances not assumed			-1.659	27.195	0.109	-0.4333	0.2613	-0.9692	0.1025
Pattern drafting brings out better fit because of accurate measurement	Equal variances assumed	2.044	0.164	-1.492	28	0.147	-0.467	0.313	-1.107	0.174
	Equal variances not assumed			-1.492	19.695	0.151	-0.467	0.313	-1.12	0.186
Pattern drafting brings out better fit because of recordkeeping ng	Equal variances assumed	3.986	**0.046**	-1.582	28	0.125	-0.533	0.337	-1.224	0.157

	Equal variances not assumed		-1.582	20.832	0.129	-0.533	0.337	-1.235	0.168
Pattern drafting brings out better fit because of knowledge of arithmetic	Equal variances assumed	5.626 **0.025**	-3.502	28	0.002	-1.267	0.362	-2.007	-0.526
	Equal variances not assumed		-3.502	20.906	0.002	-1.267	0.362	-2.019	-0.514
Pattern drafting brings out better fit because of making of toile	Equal variances assumed	4.859 **0.036**	-2.035	28	0.051	-0.667	0.328	-1.338	0.004
	Equal variances not assumed		-2.035	19.138	0.056	-0.667	0.328	-1.352	0.019
Pattern drafting brings out better fit because of adaptation	Equal variances assumed	8.105 **0.008**	-2.049	28	0.05	-0.8	0.39	-1.6	0
	Equal variances not assumed		-2.049	20.588	0.053	-0.8	0.39	-1.613	0.013

There was significant mean difference in the agreement in Comfortability in using pattern drafting method between Kenya and Ghana (p-value of 0.016). The p-value of 0.526 revealed that there is an insignificant mean difference in Kenya and Ghana in using free-hand cutting. This implies that the free-hand cutting method is common in both countries. There was no significant mean difference in the agreement in Comfortability in using both pattern drafting and free-hand cutting methods between Kenya and Ghana (p-value of 0.769). This implies that the use of both methods is prevalent in Kenya and Ghana. The p-value of 0.164 revealed that there is an insignificant mean difference between Kenya and Ghana in the statement that Pattern drafting brings out better fit because of accurate measurement. There was significant mean difference in the agreement in statement that pattern drafting brings out better fit because of recordkeeping

between Kenya and Ghana (p-value of 0.046). The p-value of 0.025 revealed that there is a significant mean difference between Kenya and Ghana in Pattern drafting utilization in bringing out better fit because of knowledge of arithmetic. Moreover, the p-value of 0.036 revealed that there is a significant mean difference between Kenya and Ghana in Pattern drafting utilization in bringing out better fit in making of toile. There was significant mean difference in the agreement in statement that pattern drafting brings out better fit because of adaptation between Kenya and Ghana (p-value of 0.008). The results imply that the pattern drafting techniques use and understanding in Kenya and Ghana is different. Ghanaian tailors have more prevalent use of pattern drafting than Kenyan tailors who are prevalent in using free hand cutting.

5.0 CONCLUSION AND RECOMMENDATIONS

Ghana is more inclined to pattern drafting than free hand cutting compared to Kenyan tailors who are inclined to free hand cutting as much as pattern drafting. Proving that the individuals vary in their views on free-hand cutting and pattern drafting revealed that the tendency of dressmakers and tailors for free-hand cutting was affected by the technique with which they were educated and the simplicity associated with free-hand cutting processes. As part of the education program for instructors, there is a necessity to cultivate the utilization of pattern drawing and also enhance the training time to enable both instructors and trainees to acquire a deeper understanding of the skills of pattern drafting in Kenya and Ghana. They will develop when apprentices are given appropriate training skills on the application of pattern drafting, and this will in fact reflect in the coming days in the decent quality on fit of garments among fashion designers and tailors in the informal environment.

REFERENCES

Aldrich, W. (2014). *Metric pattern cutting for men's wear* (5th Ed.). Oxford: Blackwell Publishing.

Amankwah, A. M., Howard, E. K., & Sarpong, G.D. (2012). Foreign fashion influence on the Ghanaian youth and its impact on the local fashion industry. *International Journal of Innovative Research and Development, 1*; 11-17.

Anderson, Y. (2011). *Pattern engineering for functional design of tight-fit running wear*. Iowa State, USA: McMillan Publishers.

Anikweze, G. U. (2013). Figure types and the challenges of making apparel in Nigeria. *PAT 2013, 9(1),* 135-146.

Dove, T. (2016). Stretch to fit-made to fit. *International Journal of Fashion Design, Technology and Education, 9(2),* 115-129.

Efajemue, O. O., & Lily, G. (2011). *Analysis of adult female clothing made with adapted patterns and free-hand cutting: constrains and prospects*. Proceedings of the First International Technology, Education and Environmental Conference, September 08, Omoku, Nigeria

Foster, P., & Ampong, I. (2012). Pattern cutting skills in small apparel industries and teacher education universities in Ghana. *International Journal of Vocational and Technical Education, 4(2),* 14-24.

Gizeski, V. K. (2009). Pattern drafting for fit and fashion. Retrieved from htpp:/www.patterndraftingforfitandfashion.Com/index

Kinuthia, N. L. (2010). *An investigation of the marketing strategies and factors influencing their implementation by apparel making micro-enterprises in Nakuru Town, Kenya*. Unpublished Doctorate thesis. Kenyatta University: Nairobi, Kenya.

Kumar, G. (2012). Fashion from concept to consumer (*8 th Ed*.). New Jersey: Pearson Education, Inc.

Obinnim, E., & Pongo, N. A. (2015). The significance of flat pattern making in fashion designing. *International Journal of Innovative Research in Science, Engineering and Technology, 4(4),* 1850-1857.

Shailong, C.N., & Igbo, C.A. (2009). Establishment of average body measurement and drafting of basic block patterns for male preschool children in Enugu State. *Journal of Home Economics Research, 13(19),* 331-332.

Stone, E. (2013). *The dynamics of fashion*. Canada: Bloomsbury Publishing Inc.