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Abstract
African print fabrics is commonly referred to as Ankara fabrics. It is a major textile product produced in Nigeria, which has the high economic value. This study focused on the customary practices in the African print fabric design process in the Nigerian textile industry. The study adopted survey research design. The population of the study comprised of African print fabric designers in the functioning textile companies in Nigeria. Ten African print fabric designers were sampled. Questionnaires and interviews were used for data collection. The data collected was analyzed using descriptive statistical tools. The study revealed that textile companies in Nigeria do not have value for quality designers, intellectual property right and originality of designs. It was recommended that the design institutes and professional design bodies should intervene in the design process in the Nigerian textile industry so as to generate designs that are original and capable of promoting the Nigerian textile industry.

Keywords: African print, design process, Ankara fabrics, textile industry, textile product

Introduction
The textile industry is one of the world's major industries, ranked among the ten largest manufacturing industries (Adeloye, Evaluation of Design Praxis 1). It is multifaceted, necessitating an understanding of design, management and technology for maximum output. The group noted that for textile companies to remain globally competitive, there is a need to concentrate on the development of good design skills and professional design ethics. Textile design has a pivotal role to play in the production of innovative and attractive products for various end-user applications. Textile products are designed and produced in almost every country in the world, sometimes for consumption...
Customary Practices in African Print Fabric Design Process

solely in the country of manufacture and sometimes mainly for export. Textile industries across the world have customary design practices that influence the quality, originality and acceptability of designs produced.

African print fabrics are essential articles of clothing for a viable economy. They are patronized by individuals in Africa and beyond regardless of social, economic or political status. They portray the African rich culture and provide a sense of belongingness in the society. Cynthia A. Chichi et al. identified brand loyalty, quality, symbolism, cultural significance, design ingenuity, adaptability of print designs to fashion styles and some design features such as colour scheme, pattern size and layout as factors influencing the marketability and acceptability of African prints locally and internationally (5). To ensure that African prints produced in Nigeria are acceptable by a broader populace in Nigeria and beyond, there is a need to evaluate the customary design practices in the African print production in the Nigerian textile industry.

The Nigerian textile industry was once vibrant and recognized globally because of the quality of African print fabrics it produced to the extent that imitations of Nigerian African print fabrics were produced by the neighbouring countries. However, the reverse is now the case (Adebayo). It is a known fact that most of the textile companies in Nigeria are no more functional due to some internal factors such as poor machine maintenance, inadequate staffing and managerial deficiencies, among others. Other external factors such as government policies, smuggling and poor funding have also been identified, but there are still a few functioning textile companies in Nigeria. These companies produce African print fabrics but most of the labels on most of these fabrics do not reflect the names and logos of the manufacturing companies (Adeloye, Examination of the Basic Components 101). This suggests that there could be dishonesty in design processes and management of designs in these companies.

Nigerian textile industry seems to lack effective design generation, regulation and ownership policies. Designs, labels and trademarks of other companies are constantly being copied and imitated on cheaper textiles pieces, which can be very profitable for the manufacturers but may be detrimental to the imitated brands. There is no evidence of proper understanding and documentation of the design processes in the textile industry of Nigeria. This may likely give room for negligence in the textile design practice in Nigeria. This might also have a negative effect on the global recognition and acceptability of products from the Nigerian textile industry.

Literature Review

Textile Design Concept

Sunday Roberts Ogunduyile et al. described design as a multidisciplinary concept, pivotal to the growth or decline of any global industry (22). Bankole Ojo and Folorunsho Kayode corroborated this submission, noting that design is a general endeavour used by service and product providers to satisfy consumers’ curiosity for creative works (1855). It is generally an investigative process that requires research which normally should be the first stage in any design exercise to investigate what the client (or potential client) needs or wants. It is a creative process because it involves art and aesthetics, ingenuity, pattern recognition abilities, lateral thinking and brainstorming. It is a rational process that requires logical reasoning in the checking and testing of proposed solutions, information analysis, experimentation and field trials. It is also a decision-making process that involves making value judgments (Wilson 45).

Textile design is the making of creative, stylish and contemporary designs that requires special skills to create innovative designs. Jacquie Wilson noted that every textile product is subjected to a design process: that is, its production is guided by a well
laid down plan (5). Design decisions are made at every stage in the textile manufacturing process, such as type of fibre to be used, the weight of yarns, colours to be used for printing or dyeing and type of finishes to be applied, among others. These decisions are usually made by designers and technologists trained in aesthetics, design and marketing.

Rachel Studd described textile design as the entire process involved in converting textile fibres and yarns from their crude state to usable and functional products to optimize consumers’ satisfaction and the company’s profitability through the creative use of major design elements (37). Studd also noted that this process is complex because it requires diversified knowledge of colour, chemistry, fibre physics, weave, spin and aesthetic (42). According to Osuanyi Q. Essel, the following are the fundamental aspects of textile design: surface design which includes different types of printing and dyeing and also the structural design which includes different fabric construction techniques such as weaving, knitting, and felting, among others (41). Robert Ahiabor described surface textile designs as the decorative effects/designs introduced to the fabric after its structural construction (160). They are the surface decorative effects done to enhance the surface quality of the fabric which include dyeing, painting, printing, embroidery and applique. The structural decorative designs, on the other hand, are those effects that come with the basic construction of the fabric structure. Structural decoration is the anatomical patterns and arrangement which characterize a textile fabric due to its method of construction (Essel 41). Textile printing, which is one of the surface decorative techniques, is of interest in this research.

Printed Textile Design

Textile print or printed textiles is as old as human history. Various records show that printed fabric existed since about 2500 BC and people of India and China were the first to use simple blocks for the printing of cotton cloth (Printed Textile 1). Textile prints have played an important role in enhancing fabric surfaces. Each region across the globe has its intrinsic style, colour and pattern (Printed Textile 1). Textile fabric printing is part of the functions of the finishing section of the textile finishing industry. In fabric printing, a decorative pattern is applied to constructed fabric using appropriate printing technique(s) such as roller, flat screen, or rotary screen methods. Printed textiles are often considered to include fabrics patterned by dyeing techniques as well as those where the design is applied to the fabric by a printing process. Briggs-Goode Amanda classified textile printing methods into the following ways: resist printing, where an image is printed or painted using resist techniques before dyeing; relief printing processes, such as woodblock; gravure or intaglio, such as copperplate or roller printing; stenciling, such as, screen printing; transfer printing, often completed using a heat source; and, most recently, digital printing, which utilizes an inkjet process (16). Printed textile designs could be organized into over ten style categories (Printed Textiles 12-23). However, Amanda opined that these style categories could be summarized into four main ones namely floral, geometric, conversational and world cultures (16). Each of these categories has sub-sections. Amanda emphasized that understanding the characteristics of these style categories will enable the designer to communicate and respond to a design brief by articulating a breadth of design ideas, both visually and verbally (16).

African Print Fabrics

African print is a term used to describe textiles made using the wax-resist dyeing method using machines usually characterized by African signs, symbols, and motifs used as a means of non-verbal communication. African print fabrics commonly known as Ankara are 100% cotton fabrics with vibrant patterns, usually a colourful cloth and
primarily associated with Africa because of its tribal-like patterns and motifs. This print is used by women, men, and children as casual wears and uniform (aso-ebi) at different occasions (Adeloye, *Investigation into Studio Handcrafted Techniques* 21).

African Print fabrics are major raw materials for the fashion industry in Africa and even in the international fashion world (Amankwah and Howard 75). Sunday R. Ogunduyile studied African print fabric designs from the cultural standpoint and described it as an essential part of the culture, viable for the development of the economy of a nation (110). Tunde M. Akinwumi defined African print as a general term used by the textile firms to describe machine-printed fabrics using wax resins and dyes to achieve batik effects on cloths (180). African print fabrics are the vibrant, attention-grabbing fabrics used across countries in Africa with varying patterns and colours. These patterns represent proverbs, poems, and traditional fables while the colours symbolize social status, age, tribe, and marital status (“The African Print Fabric Market” 8). The term also covers those imitation resist-look fabrics which have a resemblance of the waxed type effects (Akinwumi 181). However, Essel raised a terminological dispute about the term African prints stating that most of these fabrics are manufactured in European and Asian countries but the term is generally accepted because though the fabrics are not of African Origin, they represent an integral part of African culture (38). The designs in African print fabrics have been adapted to African culture by adopting names and patterns from the cultures in the region. This extends the function of African print fabric beyond its use for only personal beautification but also as a powerful medium of communication (“The African Print Fabric Market” 8).

Akinwumi noted that there are some features that are peculiar to African prints such as crackle effect, overlapping background colours, bold motifs and line effect among others (179). Essel corroborated this by stating that African prints are characterised by waxy venial effect and patchy designs derived from the varying manner of wax applications such as cracking and splattering of the wax in the process of printing the fabrics (38). Some of these features are shown in Figure 1 and Figure 2.

![Fig. 1: Splattering Wax Effect](source)

![Fig. 2: Overlapping Colours Effect](source)

**Textile Design Processes**

Wilson affirmed that design is not an isolated activity, describing it as a complex process with several key stages/activities involved (20). Design does not happen by accident but as a result of a well-managed process by the designers along with effective communication between all relevant participants (Studd 47). Textile design projects, like
any other design project, need to be properly planned and managed efficiently. Wilson noted that although much textile design works can be carried out directly and informally, however, the degree of formality attached to a design project influences its level of success and acceptability (50).

A designer’s lack of adequate understanding and adherence to appropriate design process can result to the production of unmarketable designs. Though design is creative; however, the process leading to successful designs is predictable. Design process transforms ideas into reality and occurs from the conception of an idea until the development of a workable solution (Studd 40). Research and regular contacts with clients are major steps in textile design process to produce acceptable and marketable designs (Adeloye, Evaluation of Design Praxis 213). Wilson opined that design being an investigative process should begin with research which is an inquiry into what the client requires and their expectations after the identification of design needs (33). The design process is investigative, creative and rational and involves decision making.

Understanding design processes is the key to improving them in the future (Eckert 688). Cynthia L. Regan and Doris H. Kincade summarized the textile design process for fashion and surface design as a process that sees the transformation of ideas generated on sketchbooks into tangible products (44). This summary highlights the importance of originality in the textile design process. Wilson also agreed that textile design process begins with a design brief, describing the project which may be formally or informally delivered depending on the nature of the job (25). Regan and Kincade noted that the design brief normally should have all the information needed for the design project but if not, the designer must be ready to ask questions about the type of consumers, colour preference, price range and design theme among others (44).

**Professional Textile Design Practices**

Textile design production in various countries is supported and guided by many professional bodies at both national and international levels. These professional bodies advise and support their members as well as set out codes of conduct within which their members should function (Wilson 26). These organizations serve as the link between the designers, government, and consumers. Design activities take place within different textile outlet setups, and these range from small-scale businesses through to huge, multinational corporations (Wilson 20).

Wilson noted that professionalism in textile design is demonstrated by self-confidence, expertise, excellence, rational and systematic thinking. Creativity, good sense of judgement, sensitivity to the environment, nationalities and cultures, appreciation of design practice within the global context and a lifetime commitment to personal education/improvement and professional advancement (50). The ability of a designer to learn how to control his unique potentials, and how well he can channel his expressions towards creating a wide range of design possibilities in the design studio, is a requisite for professionalism (Suparna and Meenu 90; Wilson 67).

A professional approach is required in all stages of the textile design process from answering job adverts, product advertisement, briefing meetings, work presentation, invoice writing, design generation and product delivery. Design entails many different activities and these activities should be carried out in a professional manner. Designers need to make conscious efforts to ensure that potential clients or employers know that they exist and in business. This can be done by identifying potential clients/employers through research and making them aware of the services offered (Wilson 35). Effective record systems need to be put in place for paperwork, design
works, fabric samples, costing and all payments. Wilson emphasized the importance of record-keeping in the textile design process as an important professional practice (66).

Research Methodology
The study adopted survey research design. The population of the study comprised of African print fabric designers in functioning companies in Nigeria. At the time of this research, there were only two functioning textile companies engaging in the production of African print fabrics in the study area. These companies were located in Lagos state, Nigeria. There were only ten African print fabric designers working in these companies. Census was adopted for determining the sample size since the number is manageable. Therefore, all the African print fabric designers in these companies were sampled. Survey research design was adopted for the study using a triangulation of qualitative and quantitative data collection tools. Questionnaire and interviews were used for data collection. The data collected were analyzed using descriptive statistical tools.

Results and Discussion
Wilson noted that quality of designers, design generation process and record keeping are major factors that make up customary design practices in the textile industry (74). Studd also corroborated this (47). These variables were considered during the preparation of the questionnaire items and served as the basis of the analysis of data for the research objective.

Quality of African print fabric Designers in Nigerian Textile Industry
Table 1 shows that the highest qualification of the samples African print fabric designers in Nigeria is a diploma. Interview with two senior designers in the sampled companies revealed that two (20%) of the diploma holders are OND (Ordinary National Diploma) while four (40%) are HND (Higher National Diploma) holders. The table also revealed that not all the designers with diploma degrees studied design related courses. The data shows that only one (10%) of the designers have a diploma in a design course. This shows that textile companies in Nigeria do not employ highly qualified designers probably to reduce the cost of labour. This is however not a good professional practice as highly qualified designers with good design degrees are needed in the companies as design consultants to ensure adequate design practices and quality design production in the textile studios.

Table 1
Quality of African print fabric designers in Nigeria in terms of academic certifications and membership of professional bodies

<table>
<thead>
<tr>
<th>Academic Qualification</th>
<th>Course Category</th>
<th>Membership of professional Bodies</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percent</td>
</tr>
<tr>
<td>&lt; SSCE</td>
<td>1</td>
<td>10.0</td>
</tr>
<tr>
<td>SSCE</td>
<td>2</td>
<td>20.0</td>
</tr>
<tr>
<td>Diploma</td>
<td>7</td>
<td>70.0</td>
</tr>
<tr>
<td>Higher degrees</td>
<td>0</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Source: Researcher’s fieldwork, 2021
Table 1 also shows that only one (10%) designer belongs to a professional design body in the companies sampled. This implies that designers in these companies do not have a platform for social and professional interaction with other designers. This may deprive them of the benefits derived from joining professional bodies such as networking, career opportunities and training, among others.

**Design Generation Process**

This variable was assessed by investigating the sources of designs, teamwork and originality of designs produced in the sampled companies.

**Sources of Designs**

Table 2 shows designers’ inspiration is the major source of African print fabric designs in Nigeria with the mean score of 4.5 of 5.0 followed by design archives with a mean score of 4.4 and design briefs with a mean score of 3.8 and use of mood boards with a mean score of 3.6. The respondents were neutral about other variables such as company and marketer’s interference with the designs. This suggests that African print fabrics produced in Nigeria are nor user-centered.

**Table 2**

<table>
<thead>
<tr>
<th>Variable</th>
<th>SA</th>
<th>A</th>
<th>N</th>
<th>D</th>
<th>SD</th>
<th>X</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>African print designs are largely derived from designers’ inspiration</td>
<td>5</td>
<td>5</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>4.5</td>
<td>SD</td>
</tr>
<tr>
<td>African print designs are highly influenced by the company’s management</td>
<td>-</td>
<td>6</td>
<td>2</td>
<td>2</td>
<td>-</td>
<td>3.4</td>
<td>N</td>
</tr>
<tr>
<td>Marketers strongly influence the designs of African prints</td>
<td>-</td>
<td>6</td>
<td>2</td>
<td>2</td>
<td>-</td>
<td>3.4</td>
<td>N</td>
</tr>
<tr>
<td>Mood boards are sometimes used to get design inspiration</td>
<td>1</td>
<td>5</td>
<td>3</td>
<td>1</td>
<td>-</td>
<td>3.6</td>
<td>A</td>
</tr>
<tr>
<td>Design inspirations are sometimes gotten from archives</td>
<td>4</td>
<td>6</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>4.4</td>
<td>SA</td>
</tr>
<tr>
<td>African print designs are usually initiated by a design brief</td>
<td>2</td>
<td>5</td>
<td>2</td>
<td>1</td>
<td>-</td>
<td>3.8</td>
<td>A</td>
</tr>
<tr>
<td>Design briefs are usually interpreted by individual designers</td>
<td>3</td>
<td>6</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>4.2</td>
<td>A</td>
</tr>
<tr>
<td>Design briefs are interpreted collectively</td>
<td>-</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>1</td>
<td>2.6</td>
<td>D</td>
</tr>
<tr>
<td>Designers brainstorm together to generate design ideas</td>
<td>1</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>-</td>
<td>3.4</td>
<td>N</td>
</tr>
<tr>
<td>Already existing designs from other companies can be reproduced if the demand is high</td>
<td>3</td>
<td>5</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>4.1</td>
<td>A</td>
</tr>
<tr>
<td>Designs produced in this</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td>-</td>
<td>3.4</td>
<td>N</td>
</tr>
</tbody>
</table>
We produce at least one of the following in this studio: Da viva, Akosombo, Hi-target and Hollandais.

<table>
<thead>
<tr>
<th>Studio have copyright protection</th>
<th>(20.0)</th>
<th>(20.0)</th>
<th>(40.0)</th>
<th>(20.0)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean score rating Key:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.00 – 1.80 (SD); 1.81 - 2.60 (D); 2.61 - 3.40 (N); 3.41 – 4.20 (A); 4.21 – 5.00 (SA)</td>
<td>4.4</td>
<td>SA</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

However, these claims were verified qualitatively using in interviews and it was discovered that that the designers in one of the companies did not have the understanding of what a design brief is. They interpreted design briefs to be existing designs selected for replication during market surveys. This suggests that African print fabric designers in Nigeria do not have a good theoretical design background and this is probably because they do not have quality design education. It is the researcher’s opinion that textile industries in Nigeria should employ African print fabric designers with good design education.

**Team Work**

Table 2 shows that designers work on briefs individually more than collectively. The result shows that the mean score for individual brief interpretation is 4.2 while that of collective brief interpretation is 2.6. The result also shows that the respondents were neutral about brainstorming together for designs with a mean score of 3.4. This shows that African print fabric designers in Nigeria lack a good team work. This is not a good design practice according to (Wilson 22). This is probably responsible for the poor originality, visibility and patronage of Africa print fabrics in produced in Nigeria because team work is an essential component of any research process (Studd 38).

**Originality of Designs**

Table 2 reveals that African print fabric designers replicate already exiting designs produced by other companies if the demand for the design is high. The mean score for this variable is 4.1 of 5.0. This suggests that to a large extent, most African print fabrics produced in Nigeria are not original designs. This is an unacceptable design practice. The result also shows that the designers are neutral about having copyright protection for their designs. Table 2 also revealed that textile companies in Nigeria do not only replicate designs from other companies but also use the brand names of other companies as theirs. The mean score for this variable is 4.4. This clearly shows that textile companies in Nigeria do not have value for intellectual property rights and originality of designs.

**Record keeping**

According to Studd, record keeping is an important component of design practice in any field of design (38). Table 3 shows that African print fabric designers in Nigeria have a commendable record keeping practice as they strongly agreed to have adequate records of all their designs for the past two (2) years with a mean score of 4.6 of 5.0. They also strongly agreed that they can trace all their designs regardless of the year of production using the identification numbers. The mean score for this variable is 4.8.
Table 3
Record Keeping Practices of African Print Fabric Designs

<table>
<thead>
<tr>
<th>Variables</th>
<th>SA</th>
<th>A</th>
<th>N</th>
<th>D</th>
<th>SD</th>
<th>( \bar{X} )</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have the records of all my designs for the past two years</td>
<td>8 (80.0)</td>
<td>1 (10.0)</td>
<td>-</td>
<td>1 (10.0)</td>
<td>-</td>
<td>4.6</td>
<td>SA</td>
</tr>
<tr>
<td>Design identification number can be used to trace any design regardless of the year of production</td>
<td>8 (80.0)</td>
<td>2 (20.0)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>4.8</td>
<td>SA</td>
</tr>
<tr>
<td>Demand rate for the designs produced are adequately monitored</td>
<td>4 (40.0)</td>
<td>5 (50.0)</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>4.3</td>
<td>SA</td>
</tr>
</tbody>
</table>

Mean score rating Key: 1.00 – 1.80 (SD); 1.81 - 2.60 (D); 2.61 - 3.40 (N); 3.41 – 4.20 (A); 4.21 – 5.00 (SA)

The data on Table 3 also shows that the demand rate for the designs can be adequately monitored by the designers. The mean score for this variable is 4.3. This claim was confirmed qualitatively using interview and it was discovered that the designers get updated about the sales of designs produced in the textile studio. The researcher is of the opinion that this is a very commendable practice that should be encouraged in the textile design studio.

Conclusion
African print fabrics are machine-printed fabrics using wax resins and dyes used majorly by the Africans. African print fabrics are major materials for the clothing and fashion industry in Africa and even in the international fashion world. They are essential parts of the African culture and viable for the development of the economy of a nation. They are patronized by individuals in Africa and beyond regardless of social, economic, or political status.

The study focused on the quality designers, design generation process and record keeping as factors that make up the customary design practices in the textile industry. The data collected for this study revealed that the academic qualification is not a major criteria used for employment of African print fabric designers in Nigeria. Textile companies in Nigeria prefer to employ cheap labour and train on them the job regardless their educational background.

The study also exposed some unprofessional practices in the African print fabric design process in Nigeria such as lack of adequate team work, lack of value for intellectual property and inadequate consideration of users input in the design process. It was however revealed that the record keeping practice of African print fabric production in Nigeria is commendable.

The researcher is of the opinion that in order to improve the customary design practices in the production of African print designs, design institutes and professional design bodies need to intervene in the design practices/processes in the Nigerian textile industry.

Works Cited
Customary Practices in African Print Fabric Design Process


Regan, Cynthia L. and Doris H. Kincade. “Applicability of the Engineering Design
Customary Practices in African Print Fabric Design Process


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