Research Article

Maslow's theory of needs as a spice in conceptual textile surface designing

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Abstract

African prints are given strategical names by market women in Ghana to sell the products. This is because the people cherish symbolism and admire prints backed by philosophies. Abraham Maslow's hierarchy of needs has been a source of inspiration for researchers over the years. Although, the famous model has been explored in many disciplines by scholars to obtain substantial results, the area of conceptual textiles surface designing is seemingly not addressed. The study is aimed at juxtaposing textile surface designs with philosophies to stir up the creative abilities of textile surface designers as well as the Ghanaian textile printing industries to meet the demands of the market. It explores Maslow's hierarchy of needs with the Art studio-based research method in conceptual textile surface designing. Five conceptual textiles surface designs were created at the studio after a market survey to reflect the various levels on Maslow's hierarchy of needs. The results show that philosophies are key factors in the patronage of textile prints in the Ghanaian setting. Incorporation of philosophies in textile surface designs would add more value to the locally made prints. It is therefore recommended that the local textile printing industries would embrace conceptual textile surface designing in their creations to catch the attention of the natives.

Keywords: Maslow's Theory of Needs, Textile Surface Design, African Prints, Conceptual Designs.

INTRODUCTION

Necessities to human survival are classified as needs. In the quest to balance the scale of life, some needs are set as a priority over others depending on their degree of indispensability to man's existence. A surviving example of this order of needs is seen in Maslow's hierarchy of needs featuring five basic necessities of man (Kaur, 2013: 1062). Abraham Harold Maslow was an American psychologist and a philosopher popularly known for his theory of needs propounded in the year 1943 (Boeree, 2006; Kaur, 2013: 1061; Aruma & Hanachor, 2017: 15). These five basic needs in a hierarchical order include; Physiological needs, Safety needs, Love and belonging, Esteem needs and Self-actualization needs. As hypothesized by Maslow, individuals become more psychologically disturbed when these basic needs are not satisfied (Lester, et al., 1983: 83). The

hierarchy has been explored in various disciplines, yet its central idea has been left untouched; thus, its function of giving understanding on what is important to humans still remains unscrutinised (Benson & Dundis, 2003: 316).

"Physiological" needs being first on the hierarchy and found at the bottom of the pyramid-shaped model involve the needs for food, water, warmth and sleep. It represents the most basic and instinctive needs vital for survival (Shahrawat & Shahrawat, 2017: 939). Maslow noticed that, without physiological needs, one cannot survive and fight for any other need. "Safety" needs express the value of security in man's life with emphasis on proper health care to keep the body active, employment to combat against financial deficiencies, and safety against injuries. People strive for protection from physical and emotional harm after acquiring their physical needs (Thielke et al., 2011). Safety needs are therefore ranked second on the hierarchy and regarded as the most important human needs next to physiological needs. Maslow again, proposed a third level of needs in his theory: "Love and belonging". At this level, the need for intimacy and interpersonal relationships becomes more paramount. One needs to feel the sense of being connected to a group such as the family, friends, etc. and be given the necessary love and care within and outside the group. After meeting the love and belonging needs, the need for status, recognition, freedom and respect arises. These are classified under "Esteem needs", and are found on the fourth level of the hierarchy. Esteem needs climaxes the first phase of Maslow's needs which scholars (Wallace & Wertz, 2017: 1; Mcleod, 2020) among others confirm to be termed as "Deficiency needs" (D-needs). It is believed that, the longer deficiency needs are denied the bigger they grow to become more desired. The last and final needs on the hierarchy is "Self-actualization", which represents the second phase of the needs known as "Growth or Being" needs. It is also termed as "B-needs" (Mcleod, 2020). Figure 1 presents Maslow's hierarchy of needs.

Figure 1: Maslow's hierarchy of needs

The famous hierarchy has been explored significantly by scholars in many disciplines to address important life issues. Scholars (Yawson et al., 2009; Avalon, 2006; Drakopoulos & Grimani, 2013; Desmet & Fokkinga, 2020) among the numerous could be mentioned to have delved into the hierarchy in their research. Although, the model has been an insight in academia over the years, the area of textiles surface designing is seemingly neglected. Maslow's motivational theory was born out of psychology, and therefore, would not be out of place when adopted in conceptual textiles art to foster creativity among textile art practitioners.

Conceptual art focuses on the idea poured out from the artist's mind. Such art pieces do not go without philosophies which authenticate their existence as art works. It is an art movement which emerged to bring ideas or meaning of art rather than its aesthetics (Asinyo et al., 2016: 116). This art movement is practiced around the globe by many cultures (Carter, 2004: 15). Essel and Acquah (2016: 1218) concluded in a study that, conceptual art had been practiced by Africans for centuries although it was not originally named as such. Its exploration as an art movement in African art practice is therefore not new. The adaptation of conceptualism in visual art practices gives artists the opportunity to express themselves in diverse ways to bring out their in-dwelled capabilities. It creates room for a deep thinking which eventually connects the head, heart and hand for an artistic rendition.

In Ghana, the consumption of wax prints in the market is partly due to the names strategically given by market women based on the motifs and textures found in the fabrics. Such names may be extracted from proverbs or meant to commemorate an important event (Young, 2016: 313). These fabrics among others with their literal translations include; "Dua korɔ gye mframa a ebu" (*An isolated tree easily falls when the wind blows*), "Afe bi yɛ esan" (*A year of misfortune*), "Sika wɔ ntaban" (*money has wings*) etc. The above named print fabrics are shown respectively as ABC in Table 1. In the area of weaving, all woven fabrics are given names by the weavers and traditional rulers. It could be said that Ghanaians are more interested in textiles which evoke symbolic philosophical interpretations. Impraim-Swanzy et al., (2018: 26) posit that the choice of fabric designs by Ghanaians does not only rest on their physical appearance but also on the cultural and symbolic meaning of the artefacts. Notwithstanding, the so-called conceptual wax prints on the local market proudly patronized by Ghanaians as a result of their supposed philosophical meanings were actually not designed to function as such. This argument relies on the fact that their origin could be traced back to the Dutch colonial time, who apparently had no thought of the Ghanaian culture and their creations (Young, 2016: 306; Chichi et al., 2016: 2; Impraim-Swanzy et al., 2018: 13). It is believed that Dutch designers imitated real Indonesian batik art with industrial machines for quick production after learning from them. These prints, upon rejection by the Indonesians were brought to Africa where they were embraced by the natives as the fabrics resembled batik (Chichi et al., 2016: 2). Today, the prints are found all over Africa and are named as African prints to attract customers in the continent.
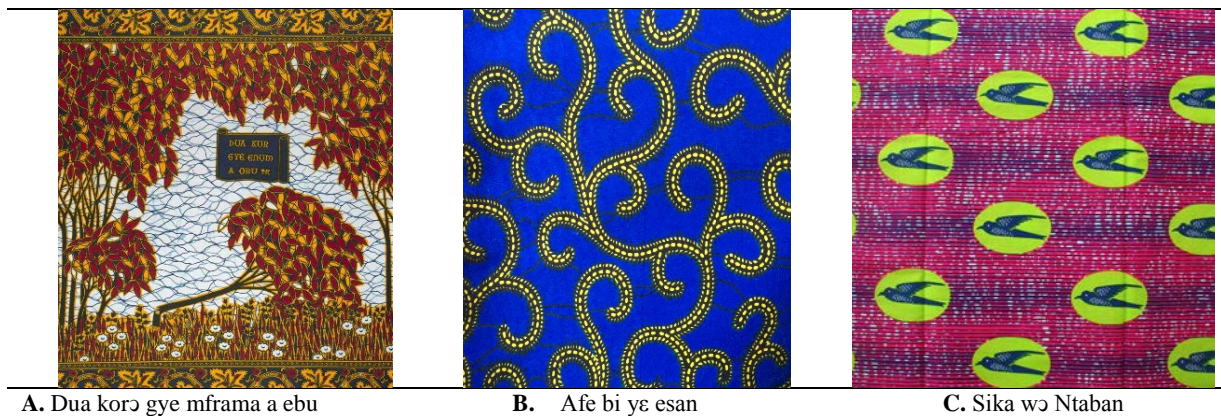

| **A.** Dua korɔ gye mframa a ebu | **B.** Afe bi yɛ esan | **C.** Sika wɔ Ntaban |

Table 1: African prints and their local names in Ghana (Akan dialect)

As revealed by the literature, with no doubt, conceptual textile surface designs would stand the chance of attracting consumers in Africa, especially in Ghana where symbolism is a key factor in the patronage of textiles. Ghanaian printing industries have suffered a dwindle in recent times as a result of the influx of cheap foreign imitated wax prints (Asare, 2012: 307; Howard et al., 2016: 2). Conceptual textile surface designs, when adopted by the local printing industries would certainly catch the native's attention to patronize the products. Buttressing this assertion, the Tex Styles Ghana Limited (TSG) recently created textile surface designs to commemorate the global pandemic (COVID 19), and the prints received a massive patronage by the people due to the current meaning they carry. The designer conceptually incorporated the president of the nation (H.E. Nana Akufo-Addo) in the prints to depict his appearance and words when addressing the nation on the pandemic. These prints were named as "Fellow Ghanaians" as the president would say. Table 2 shows variations of Fellow Ghanaians prints. As aimed in this study, the initiative by the TSG needs to be encouraged as it would play a significant role in reviving the local printing industries. The study therefore adopts the famous Maslow's hierarchy of needs as a bases for the creation of conceptual textile surface designs to encourage designers and stir up their creative abilities as far as conceptual textile surface designing is concerned. The choice of the hierarchy of needs as a frame work is to demonstrate the possibility of creating textile surface designs from any philosophy.
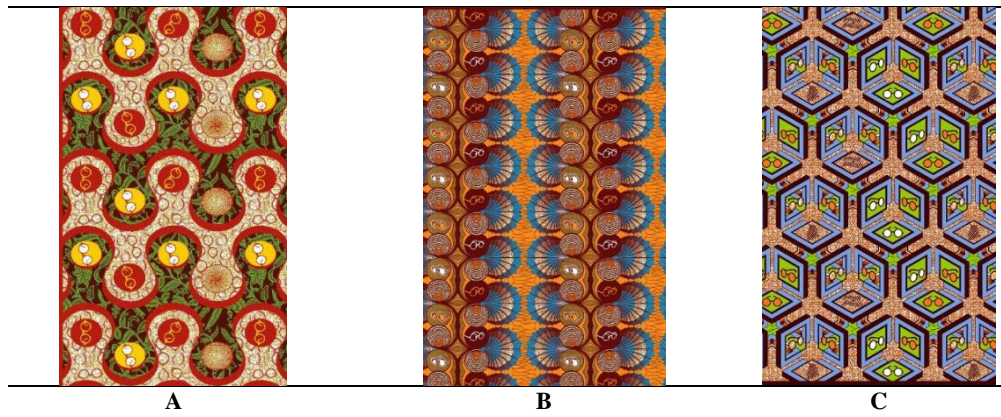
Table 2: Variations of Fellow Ghanaians print (by TSG of GTP)

METHOD

As a practice-based study under the qualitative method of research, the studio became a significant setting for the implementation of concepts. A computer with Adobe Photoshop software (CS6 edition) was used as a core tool for the execution of the print designs. Prior to the development of the concepts, a market survey was done to acquire empirical evidence on the numerous African prints on the Ghanaian market and the names given by the market women. In order to ascertain the influence of the fabric names on their business, interviews were conducted with them. With the empirical evidence obtained from the market survey and a thorough review of secondary data, concepts were created out of philosophies backed by Maslow's hierarchy of needs.

Due to the human-centered nature of this studio research, the established concepts were presented to experts in the textile design field for appreciation from technical point of view. Again, the market women (African print sellers) were given the chance to assess the fabrics from aesthetic and conceptual perspectives. They were asked to rank the designs from the most liked to the least liked focusing on philosophies with respect to the local names given to the individual designs. The data gathered were assembled and analyzed in words. It was presented using themes and charts.

Establishment of Concepts

With Maslow's hierarchy of needs as a framework, concepts were generated chronologically following the hierarchy to reflect the various needs of human. These concepts emerged out of critical thinking and organization of the elements and principles of design by using software at the studio to substantiate the philosophies outlined in the study. Table 3 shows concepts established out of Maslow's hierarchy of needs.

Table 3: Concepts establihed out of Maslow's hierarchy of needs

Concept 1: Physiological Needs

A motif was created with inspiration from the first need on the hierarchy of Maslow's theory. The physiological needs are philosophically depicted by water and fish as seen on Table 3. Naturally, fish cannot survive without water. These two friends were therefore fused together to form a motif for the surface design to suggest the indispensability of water in the life of fish. The fusion together of component "A" (fish) and component "B" (water) gives the motif labeled "C" under the physiological needs concept.

Concept 2: Safety Needs

In line with the framework (Maslow's hierarchy of needs), the second most important need was conceptually established. The motif could be divided into two main components. The first component depicts protection in all aspects as represented by the padlock and labeled "A". The second component is labeled "B", and portrays the individual safety needs including: employment, health care, property etc. The fusion together of the two components (A and B) gives the safety needs labelled "C" as illustrated on Table 3 under the safety needs concept.

Concept 3: Love and Belonging needs

Series of hearts were arrranged arround a circle to depict the need to be loved by a number of people. One needs to be loved by his/her colleagues in the class room, workplace, society etc. in order to live a happy life. This is labelled as "A" on Table 3 under the love and belonging needs concept. The hierarchy agains establishes the fact that one needs to be part of a group, and this is also labelled as "B" under the same concept (love and belonging needs). The third component of the illustration labelled "C" is the final motif and exhibits the concept of love and belonging. It comprises of the two components (A & B) fused together.

Concept 4: Esteem Needs

The need to be respected and acquire fame is conceptually established as a motif on Table 3. In this motif an abstract man wearing a crown could be seen, which philosophically portrays how one earnestly aspires to build self esteem after gaining the third need (love and belonging). Kings and queens are well respected and are known to be powerful people in the society, especially in the Ghanaian context. Component "A" of the motif represents self-esteem built by an individual while component "B" represents the esteem received from others around the person. The combination of these components forms the esteem needs labelled "C" on Table 3 under the esteem needs concept.

Concept 5: Self Actualisation

Individuals realise their potentials when they manage to climb the pyramid of human needs and get to the peak. Such individuals are refered to as self-actualised persons, and are perceived to be creative and standing above their peers. As conceptualised on Table 3 under Self-actualisation needs concept, an absract person, labelled "A", is perceived to have been climbed to the top of the hierarchy and stands as an overcomer. Part "B" portrays the self-actualised person who seems to be happy in the world. Happiness here is used metaphorically for actions of a self-actualised person.

FINDINGS

Textile surface designs were generated out of the established conceptual motifs by using Adobe Photoshop software. Five designs were created to depict the various needs hypothesized by Maslow. Each design comprise of two variations, resulting in ten (10) different conceptual designs. For easy assessment of the conepceptual designs by the local people, especially the market women, local names were coined for the designs created. Although, the names are not a direct translation of the various needs on Maslow's hierarchy of motivation, the idea behind each level of the needs are philosophically captured in the naming. With respect to the hierarchy, the titles chosen for the designs have been: "Ménkwa ahoɔden foɔ" (the strength of my life), "Ahobanbɔ ho hia" (safety is important), "Ɔdɔ ne nkabom" (love and unity), "Animuonyam hwehwɛ wɔn a wɔ hwehwɛ no" (glory seeks those who seek for it) and "Nkunimdie wɔ soro" (there is victory at the top).

Physiological Needs Design

Conceptually, fish and water are used to describe the critical role of physiological needs in man's survival on earth. Fish depends largely upon water to live, so as man on physiological needs. The "Physiological needs design" is therefore named as "Ménkwa ahoɔden foɔ" (the strength of my life) to signify the source of fish's life. Taormina and Gao (2013:157) posit that physiological needs could be interpreted as the lack of nutrients, chemical, internal or environmental conditions required for the survival of living organisms. The prolonged absence of these as further explained, could lead to physical death. This fact is philosophically expressed in the textiles surface designs featuring fish and water to point out the need for water as an environmental condition necessary for the survival of fish. Thus while using water for the physiological human needs including food, water, rest, shelter, health and warmth, fish are used metaphorically to represent humans. The designs created out of physiological needs concept are shown on Table 4. The designs have been rendered in two different colour schemes by using the same motifs and textures.

Table 4: Variations of textile surface designs created out of Physiological needs concept

Safety Needs Design

Safety needs are depicted with a padlock and a chain in the conceptual textile surface designs presented on Table 5. The designs are named locally as "Ahobanbɔ ho hia" (safety is important). They portray the need to secure one's job, health, and prevent danger from both physical and emotional perspectives. A padlock is a

mechanical device emerged out of human's pursuit for security (Hsiao, 2018:189). It is therefore a symbol of safety. As seen in the designs, the padlock is securing the various needs philosophically represented by a segmented semi-circle. These segments represent the needs (personal security, job security and health security). Textures are introduced into the motifs to make them aesthetically presentable as far as textile surface designs are concerned. These designs come in two variations, each in four colours shown on the pallete.
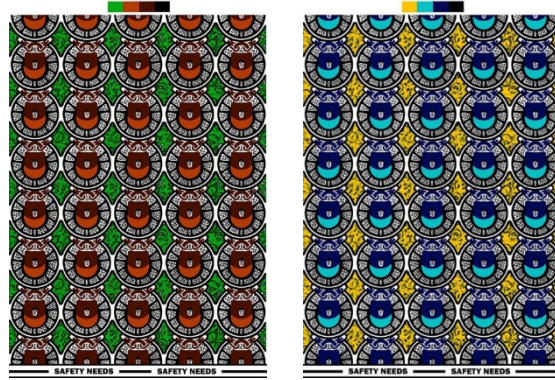

Table 5: Variations of textile surface designs created out of Safety needs concept

Love and Belonging Needs Design

The third item on Maslow's hierarchy of needs (Love and belonging) expresses the need of individuals to attach themselves to their loved ones and be part of a group. This concept is captured artistically by using the textile surface designs shown on Table 6. They bear the local name "Ɔdɔ ne nkabom" (love and unity). The motif comprises of several hearts grouped around a circle which depicts a number of loved ones surrounding an individual. It also suggests the involvement of a person in a given group. It is believed that for a group to keep going, there is the need to develop love among the members. Hence the abstract hearts have been arranged arround a circle in order to depict a group of people brought together by peace, love and understanding. A critical look at the inner part of the circle is found a halftone effect which represents the world. This forms an integral part of the design, and suggest love as a more important need by all people in the world. In-between the conceptual world and the circle the silhouette of two people (a male and a female) facing each other is placed. This portrays the need for one to attach oneself to a life partner. The designs again have an imitated wax effect purposefully added to make the designs more appealing.
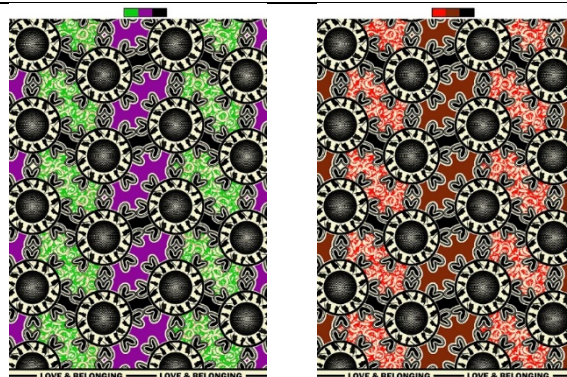

Table 6: Variations of textile surface designs created out of Love and belonging needs concept

Esteem Needs Design

Gaining respect for oneself is a very important need captured by Maslow in his theory of motivation. These needs arise when the Love and Belonging needs are met. At this level, individuals fight for positions, awards, strength and self-confidence in order to be recognised in their societies. Everyone would love to wear a crown in any form of competition since it signifies victory. Crowns are therefore meant for victors and respected

people with a high esteem. As practiced by most cultures around the globe, crowns are reserved in Ghana also for royalty, people of high esteem and those who involve in laudable achievements. This idea is adapted in the creation of the conceptual textile surface designs shown on Table 7, to express the concept of Self Esteem as a fourth human need on the hierarchy propounded by Abraham Maslow.

The designs are locallay named as "Animuonyam hwehwɛ wɔn a wɔ hwehwɛ no" (*glory seeks those who seek for it*). An abstract portait with a crown surrounded by divergent dotted lines tamed by an interrupted circle is featured on the designs. The crown suggests the philosophy of gaining respect for oneself by winning awards and obtaining positions, while the divergent lines depict the self-esteem gained within a community. As the design's name, the one who works hard for glory, will eventually gain respect and earn reputation. Aesthetically, the divergent lines serve as textures, while the crown and the abstract portrait serve as motifs. These were combined artistically to establish the concept of Esteem needs in textile surface designing.
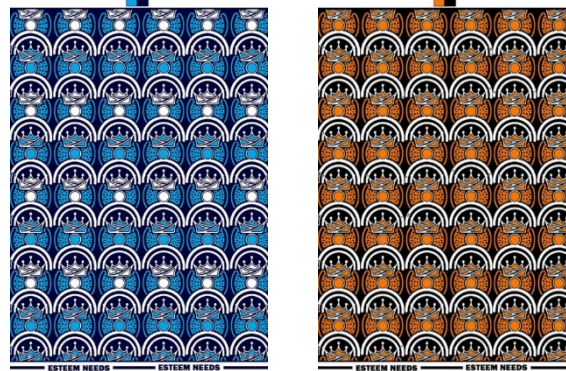

Table 7: Variations of textile surface designs created out of Esteem needs concept

Self-actualisation Needs Design

The designs created out of the philosophy of Self-actualisation needs are made up of motifs depicting humans and the world as illustrated previously on Table 3. These motifs are complemented with horizontal lines serving as textures at the background. Also in the design are vertical lines separating adjacent columns of the conceptual motifs repeated several times. The elements in the designs holistically present the idea of Self-actualisation; a level on Maslow's hierarchy of needs, where individuals are seen to be fully satisfied with the basic needs of human. The conceptual textile surface designs generated out of the philosophy of self-actualisation needs are shown on Table 8. They are named as "Nkunimdie wɔ soro" (*there is victory at the top*). These designs remind the locals of the need to stand firm and work hard in all levels of life as there is always victory at the top. The acquisition of Self-actualisation needs demands struggles through other needs.
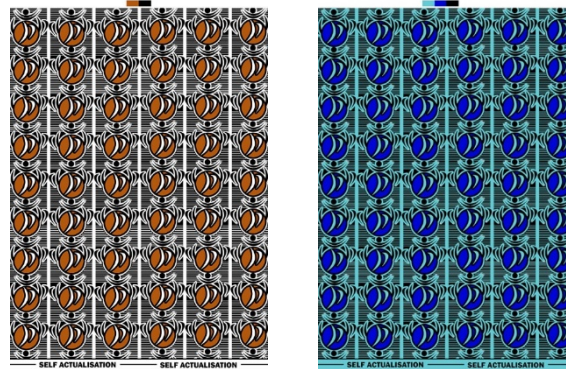

Table 8: Variations of textile surface designs created out of self-actualization needs concept

Evaluation of the Designs

The designs were presented to fifteen (15) textiles practitioners including students and technicians at the Department of Fashion Design and Textiles Studies, Kumasi Technical University for a technical assessment/appreciation. Again fifteen (15) African print marketers were engaged at the Central Business District in Kumasi (Adum and Kejetia Market) to appreciate the conceptual textile surface designs created. The sample size for the appreciation of the designs was thirty (30). Table 9 presents the sample of participants engaged in the evaluation

Participants	Number
Technicians	3
Students	12
Marketers	15
Total	**30**

Table 9: Sampling of participants for the evaluation

Evaluation by Textile Practitioners

With colour scheme and organisation of elements in conjunction with concepts as a criteria for the evaluation of the designs, the textile practitioners ranked the designs from the most appreciated to the least; i.e. Physiological, Love and Belonging, Esteem, Safety and Self-actualisation needs concepts. Figure 2 shows the results of the assessment made by textile practitioners. The results show that, five (5) of the assessors ranked the Physiological needs concept as first, whereas four (4) of them ranked the Love and Belonging needs as the first. Three (3) of the assessors were of the view that, the Esteem needs should be ranked first, while two (2) of them went for the safety needs concept. One (1) of the assessors chose to rank the self-actualisation needs concept as the first, and was therefore regarded as the least appreciated among all the concepts.
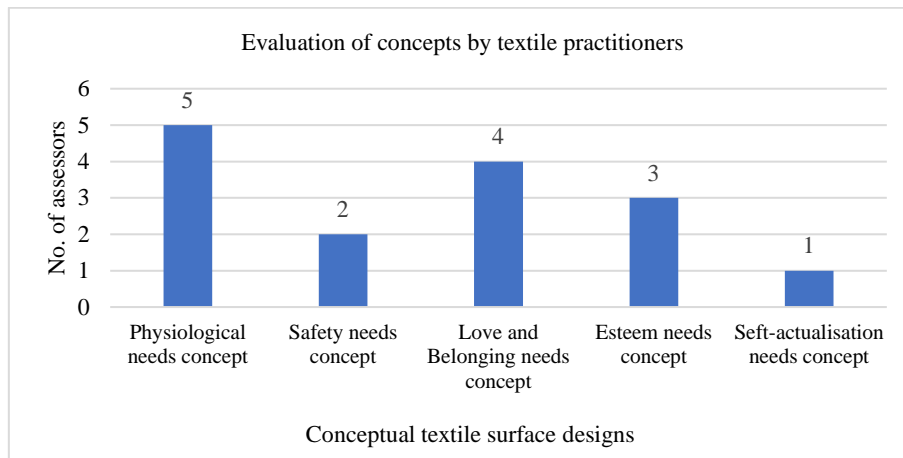

Figure 2: Results of evaluation by textile practitioners

Evaluation by African Print Marketers

Unlike the practitioners, the marketers were asked to evaluate the designs both from the aesthetical and philosophical perspective. Considering the marketers' responses, the designs could be ranked from the most favourite to the least; Love and Belonging, Physiological, Esteem, Safety and Self-actualisation needs concepts. The results show that, seven (7) of the respondents ranked the Love and Belonging needs concept as the most favourite among all the designs from philosophical and aesthetical point of view. Again, three (3) of the respondents insisted that the Physiological needs concept should be ranked first as it clearly demonstrates the concept in question. The Esteem needs concept was suggested to be ranked first by two (2) of the marketers. The safety needs concept received the same number of participants as that of the Esteem needs concept; thus, two (2) participants ranked the concept as the most favourite among the rest. Finally one (1) participant went for the Self-actualisation needs concept. Figure 3 presents the results of the evaluation made by the African print marketers.
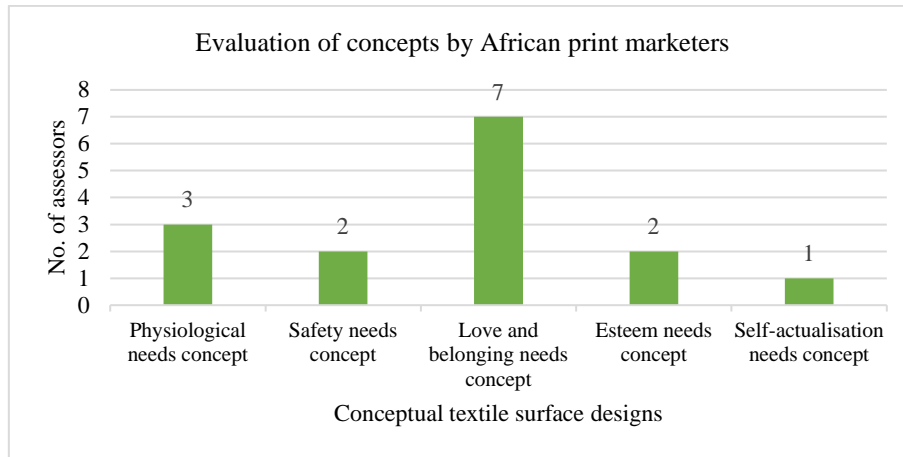
Figure 3: Results of the African print marketers's evaluation

Results of the General Evaluation

The results obtained from the evaluation of the concepts by the two categories of assesors (a sample of 30) from technical, aesthetical and philosophical viewpoints are summarised in the Table 10. From the results, Love and Belonging needs concept got the highest number of participants (11) choosing it as the most favourite design among the rest. It was therefore ranked first. The second, third and forth ranked designs include; Physiological needs concept (8 participants), Esteem needs concept (5 participants) and Safety needs concept (4 participants) respectively. Self-actualisation needs concept was ranked least (5th) with 2 participants.

Concept (Design)	No. of participants	Rank
Love and Belonging needs	11	1st
Physiological needs	8	2nd
Esteem needs	5	3rd
Safety needs	4	4th
Self-actualisation needs	2	5th

Table 10: Summary of the evaluation of the concepts

CONCLUSION

Empirical studies have shown that naming of African prints by market women has a significant influence on their consumption in Ghana. The natives value textile prints with philosophical backgrounds as these give them the platform to express their emotions, thoughts or beliefs. The study adopted the art studio research design method with Maslow's hierarchy of needs as a framework to address the issue of conceptual textile surface designing and its significance in the Ghanaian context. Five conceptual designs were created to prove the possibility of generating textile surface designs out of local philosophies. The participants were allowed to evaluate the designs to a certain their suitability in the Ghanaian setting, where symbolism is highly cherished.

The evaluation of the designs covered the elements and principles of design. Notwithstanding, the participants, especially the market women focused mainly on philosophies during the assessment of the designs. Philosophically, the designs draw the attention of the natives to their cultural setting and beliefs as confirmed by the participants. The Physiological needs concept reminds the natives of the need to be selfless, humble and ready to assist people since humans are interdependent. Safety needs concept advises on the need to acquire security in life, while the Love and Belonging concept entreats people to love everyone in the society and attach themselves to groups. The Esteem needs concept addresses the need to live a good life in order to be respected, whereas the self-actualization needs concepts reminds the citizens to work hard to reach the top, where victory always awaits.

From the market survey conducted and the literature reviewed in this study, it is possible to argue that the incorporation of philosophies in textile surface designs stands as a strategic means of arousing the interest of

the people in purchasing the locally made prints. It is therefore recommended that the local textile printing industries would adapt the methodologies applied in this study in order to draw the attention of the natives to their products. This would be a significant marketing strategy and a step in reviving the industries.

Authors' Contributions

The authors contributed equally to the study

Competing Interests

There is no potential conflict of interest.

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Figure References

Table 1 A: Vlisco: The true original Dutch wax fabric. African print. https://i0.wp.com/www.vlisco.com/wp-content/uploads/2017/07/VL_FI_VL00562.007_R_01.jpg (27.06.2021).

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