

RESEARCH PAPER

ADVANCING UNCONVENTIONAL BRIDAL GOWNS DETAILING DESIGNS THROUGH COSMOPOLITAN LOCALISM TO PROMOTE ENVIRONMENTAL SUSTAINABILITY

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ABSTRACT

This study focused on exploring unconventional designs through cosmopolitan localism to promote environmental sustainability in the field of fashion through the experimental method. The research aimed at using upcycled materials for garment detailing on bridal gowns and employed a studio-based design method, which consisted of problem discovery and definition, unconventional bridal fashion conceptualization and upcycled material experimentation for garment development and construction for bridal fashion. A reflective journal was used as a data-gathering process during the study. In the area of analysis, reflexivity was used. The result of the study showed that different types of non-fabric and fabric materials can be improvised through cosmopolitan localism for innovative construction techniques through machines and handcrafting techniques for creating a complete bridal fashion detailing that advances the concept of environmental sustainability. Authors recommend that sustainable bridal detailing from natural and artificial materials be explored further in other fashion categories through cosmopolitan localism apart from the bridal gowns to perpetuate the circular economy embraced by the fourth industrial revolution.

Keywords: environmental sustainability, unconventional, studio-based, cosmopolitan localism, upcycling, detailing

INTRODUCTION

The fashion industry is a worthy sector in every economy in the world due to its global value, which is in trillions and has employees that amount to over nine hundred trillion. (McKinsey & Company, 2016). The industry has witnessed magnificent growth in recent decades (McKinsey & Company, 2016). The growth in the fashion industry is undoubtedly a strong backbone for the industry to flourish, which enables it to contribute its quota in terms of economic support; however, the negative effects it poses to the environment are proportionally attached to its growth. Hence, the more the fashion industry booms the more negative effects it has on the environment. Fashion, therefore, poses a threat to the environment in various ways. For instance washing clothes releases 500,000 tons of microfibers into the ocean each year, which is the equivalent of 50 billion plastic bottles and the fashion sector uses 93 billion cubic meters of water per year, enough to cover the needs of five million people, contributing considerably to water scarcity in some areas (UNCTAD, 2020; Ellen MacArthur Foundation, 2017).

The global fashion industry is, therefore, highly a threat to environmental sustainability. Though the industry has made several attempts, such as practicing green design, eco-design, and design for sustainability much progress has not been achieved leading to criticism of the industry by critical consumers and other environmentally concerned organisations. These challenges posed by fashion are associated with all types of fashion production processes and products. One of the various fashion outfits in the world that contributes to sustainable challenges is the bridal gown. Bridal gowns are mostly worn once and the processes of producing the bridal gown fabrics all generate environmental pollution. Therefore, the questions driving this research are:

1. What are the appropriate materials and unconventional bridal-detailing designs that can be advanced through cosmopolitan localism?
2. How can a wedding gown be designed to promote social and environmental sustainability through cosmopolitan localism?

In an attempt to answer these questions, the approach that was adopted was cosmopolitan localism, which is related to using a foreign concept that has been localised based on cultural, social, or material limitations. Cosmopolitan localism is a collaborative tool, which promotes creative equilibrium through being rooted in a locality and being open to global flows of ideas through the concept of small, local, open, and connected (SLOC) (Bonsu et. al., 2022). SLOC is a mutual-collaborative network concept that creates an enabling environment for sizeable creative and manageable local design hubs that are connected to other sizeable creative outfits and global hubs. These local creative outfits utilise foreign ideas in a local way due to openness to global flows of ideas (Bonsu et. al., 2022) to address local and global challenges. Further, this research explored materials that were appropriate for bridal wedding gowns that promote social relevance while satisfying environmentally sustainable needs from a cosmopolitan localism perspective.

LITERATURE REVIEW

The bridal gowns' conflict between remaining socially and environmentally sustainable

The recent model of creating wedding gowns is seriously damaging the environment considering the number of weddings held in a year since bridal wedding gowns are used mostly once in a lifetime (Pursuantmedia.com, 2022). Currently, it is estimated that

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almost 40 million weddings are held in a year (Pursuantmedia, 2022). This implies that every year 40 million gowns are produced which harms the environment resulting from pollution from the bleaches, surfactants, and finishes that are used to colour fibres and fabrics for wedding fabrics. It is therefore necessary for brides and the fashion industry to rethink the types of materials that are used for wedding fashion. On the social front, a bridal gown is a dress worn by a bride at her wedding that she attaches social values and also puts much premium on due to what the gown communicates. The bride is the centre of attention during this wedding ceremony (Kurian, 2016). It is during this time that the bridal gown comes to play. There are stages in everyone's life, namely: birth, puberty, marriage, childbearing and death respectively. These stages are progressively marked by special rites, rituals, and ceremonies, and marriage is marked as one of the esteemed because that is witnessed or experienced consciously by the celebrants who are the bride and groom (Okwere-Manu, 2015) unlike stages such as outdooing and death ceremonies.

Currently, the bridal industry is experiencing a shift from conventional design approaches to modern unconventional approaches to meet the needs of brides who prefer uniqueness and personality in their bridal dresses. Although marriage practices have not altered and are still held in high regard, the bridal gown is an important and symbolic object of the wedding ceremony that expresses the modern bride's sexuality, femininity, and personality (Zoi & Maria, 2014), which brides try to exhibit through the choice of fabrics and styles which portray their preference for uniqueness. The choice of the wedding dress allows the bride to present her personality within the limits and the conventions of marriage, which with time has experienced influences in colour and styles depending on the trend of the era, the circumstances of the marriage, and

the cultural influences. This implies that the personality of the bride is manifested by her bridal gown style and nature, which is based on the societal interpretation tied to her cultural orientation. From the discussions so far it is clear that there is a possibility of conflict between social and environmental dimensions that can surface based on the preference for specific bridal gown fabrics and detailing materials by the bride, which might defray sustainability requirements. This research, therefore, attempts to employ unconventional methods to marry the social dimension to the environmental requirement of the bridal gown using cosmopolitan localism.

Advancing unconventional approaches through bridal detailing for sustainability

One means of achieving uniqueness is through employing unconventional approaches in bridal detailing. The unconventional bridal gown design approach is driven by creativity and flexibility which are beneficial solutions to the bridal gown design needs of people (Gołowska et al. 2014; Adriaan et al. 2014) in this modern day. Decorative effects that come with unconventional approaches help to communicate a story and mood behind the dress and complement the mood and tone of the dress (Vasileff, 2012). Details change to reflect new fashion themes (Garner, 2012). Decorative effect under garment detailing means making fashion products more attractive by enhancing the visual effect based on design themes or concepts. Patterns have decorative effects used in enhancing a wedding gown. Mostly, used effects include embroidery, layers, laces, ruffles, embellishments, and beading. These techniques are still being explored in creating different effects all the time. Designers such as Jessica Sim, Paolo Sebastian, and Alexander McQueen from the U.S, Australia, and the U.K respectively, have applied some of these techniques in designing

their bridal collections. Materials are typically chosen for their functional and aesthetic qualities. A fashion designer might opt to work with recovered materials, which helps to reduce the textile waste (Gwilt & Rissanen, 2011) and thereby reduce their effect on the environment to promote sustainability.

Other examples are Anna Plunkett and Luke Sales founders of an Australian fashion label who are known for their use of eclectic and unusual materials, handcraft techniques, and eccentric, whimsical styling. Also, craft techniques and patchwork fabrics, over-the-top ornamentation, and found artefacts were used in the Garden of Eden collection, which was created in conjunction with Del Kathryn Barton, an Australian artist. These characteristics allow the designers to present their customers with a unique outfit, a one-of-a-kind piece that will be appreciated for a lifetime (Gwilt & Rissanen, 2011). Unconventional can be seen in diverse ways; it can be employed in fabric selection, design, or construction techniques colour, and garment silhouette. Luke and Plunket use methods mostly backed by the use of decorative textile techniques such as printing and embroidery to achieve a garment design effect. As a means of achieving sustainable fashion, fashion designers have become increasingly reliant on the proper selection of materials. Garments can be constructed using renewable or biodegradable fibres, re-purposed materials, or new technology. Every bride on every continent understands that the wedding gown is everything, including colour, shape, and detail (Robinson, 2016). Therefore, motivated by bridal choices, client-centred culture, and the urge for uniqueness and personality in bridal gowns from global fronts, this research employed cosmopolitan localism as means of leveraging foreign ideas and localism based on materials availability and clients' preferences.

Cosmopolitan localism: a means for promoting unconventional bridal detailing for sustainability

Cosmopolitan localism is a concept that allows for an imaginative equilibrium between being engrained in a locality and welcoming global flows of philosophies, innovations, and designs (Kossoff, 2019; Manzini & M'Rithaa, 2016). "Cosmopolitan localism can, therefore, be used for promoting sustainability by leveraging the connection between the local and global flow of ideas, which ensures that the locals stay in tune with global happenings to counter sustainability challenges from the local community with available local tools and materials" (Bonsu et al, 2022, p. 126). Cosmopolitan localism, therefore, paves way for innovation based on the appreciation of foreign ideas and concepts and reinventing them to suit the local needs through local methods, tools, and materials to show resilience (Escobar, 2018). "Thus, it transfigures the relation between locality and universality, respecting and promoting local communities across a global network of equal co-existence" (Sachs, 1992, p. 124). From a cosmopolitan localism perspective, the need to retain the social dimension of the bridal gowns and the pressing requirement for ensuring environmental sustainability can be advanced since it supports reinvention from modification of global designs to reflect culturally specific needs. The need for employing this concept in this research is to make the argument that there is no need to reinvent bridal gowns that are different from all other gowns. Instead foreign concepts can be employed and modified to suit local needs, which fashion designers undoubtedly employ unconsciously in their various methods and designs in an attempt to remain fashionable. This research, therefore, attempts to employ a studio-based method and use unconventional approaches to advance cosmopolitan localism for bridal gowns that are socially relevant and environmentally sustainable. Environmental sustainability is concerned with ensuring that human activities, materials, and the by-product of production do not destroy the

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environment, which includes air, plant life, organisms, etc.

METHODS AND TOOLS

Studio-based exploratory research was adopted for this study. Studio-based or Practice-based-research is a lexicon of art-based research (Patricia, 2014). According to Winter (2010), Practice-based-research is a method, whose result is an artefact created by the researcher. Studio-based research differs from other methodologies based on the fact that the researcher-practitioner and his/her artefact are all combined to be the end product. The studio-based uses mostly four processes, which are the research and problem definition stage, conceptualization and design phase, design prototype development phase, and evaluation of the designed prototype phase.

The problem of making the bridal gowns socially and environmentally sustainable was well defined. Concepts of the bridal gowns were developed. The selected materials and designs explored some basic processes such as knotting, heating, adhesion, stitching, and coiling into creating surface and structural bridal detailing. Unconventional materials such as plumes, mica, knitting yarns, chenille, and others were experimented on or explored for their sustainable and fashion-inclined natures. This led to several manipulations and an appropriate selection of designs, materials, and technique components. In this design process, motivation was drawn through some general observations and existing foreign designs leading to the creation of two bridal wedding gowns, which were later, evaluated for their social relevance and environmental sustainability compliance. Reflection was used as the means of data gathering with the aid of a still camera for taking shots of the bridal gowns' conceptualisation and design bridal gowns. Journal was used to record the processes of the practice-based method and the ideologies in the designs. After the designed prototypes, there was an evaluation of the bridal wedding designed gown by selected experts in fashion with knowledge

of social and environmental dimensions of gowns. The gathered data was analysed using the cosmopolitan localism framework and environmental sustainability guidelines.

RESULTS AND DISCUSSIONS

The results were categorised into two based on the research questions. The first deals with the exploration of the materials in search of their environmental sustainability strength based on their 'up-cyclability' and cosmopolitan manifestation in the exploration process. The second aspect of the findings deals with the reflections on the design processes and how the final design of the bridal gown was obtained and how cosmopolitan localism was advanced in the processes.

Materials and Designs Selection that Reflect Social and Environmental Sustainability and Advance Cosmopolitan Localism

The selection of materials and designs was done based on social and environmental sustainability. The social dimension was driven by designs that philosophically and aesthetically depict the ties that bind couples in marriage through material selection and design. The designs were inspired by magnetic fields, rings, and flowers. The magnetic fields and the rings reflected the links that bind couples together, while the flowers symbolized the charms of the union and the virtues of the bride. In the case of the materials selections, it was based on the availability of the material, and the effects on the environment considering how they are produced – the chemicals, water, and other environmental safety precautionary measures and their ability to be washed easily with less water. Seven different materials and samples were experimented with to check their environmental compliant level and how they can be designed to reflect social values easily. Table one (1) gives detailing materials selection, methods, and designs.

Table one (1): Detailing materials selection, methods, and designs







Designs	Detailing Materials	Design Methods and Reasons	Reasons for selection
Sample 1	Air-laid tablecloth and white knitting thread to resemble the white lotus flower.	It was constructed utilizing stitching and adhesive methods. With the help of the thread, lines were created on the petals to resemble the veins on a lotus flower. This sample was chosen because of its clean lines, exquisitely and meticulously arranged petals, much like the flower itself, and ultimately due to its neutral colour, all of which represent the serene, meticulous qualities of the white lotus flower.	The material is soft to touch, relaxing, and ideal for the serene aspect of the flower. In warm temperatures, the underlying material is permeable and easy to wash with little water.
Sample 2	 White knitting yarns	Loop and knot techniques. The knitting thread was employed through a sequence of connected loops and knots to represent the couples' sense of togetherness. This method gives tidy finishing, a steady method, and the ability to create a look that could double as both a base fabric and a feature.	This sample has an open construction, which allows easy air circulation.
Sample 3	 White knitting yarns	Braiding, threading, and stitching were used. The threads were arranged to act as magnetized iron fillings or magnetic lines showing the direction of attraction. The yarns nevertheless matched the base, although being in the form of strands. Although the base design is hidden, the yarns have an impact. This was done to convey aesthetic appeal.	This sample possessed stability, tidy finish, multi-effect property, and thick weighty appearance.
Sample 4	 Styrofoam and rubber napkins	Heat and adhesion processes were applied to Styrofoam and rubber napkins (soft PVC). The strength of the bond was dependent on the type of glue used, and heating required close attention to avoid burning. This symbolizes the bride's personality.	The flexibility and clean finish of this sample were taken into consideration. Since this sample must be heated during the creation process and is sensitive to heat, nose protection is necessary. Although the technique is time-consuming, the results are detailed and asymmetrical, giving the appearance of a special quality.

Table 1 continued

<p>Sample 5</p>		<p>Twine and knitting yarn The sample was created utilizing adhesion, knot, and stitch techniques with twine and knitting yarn. The sample primarily makes use of the magnetic fields' properties</p>	<p>This sample was selected for its durability, supple and comfortable feel, springiness, luster effect, and clean finish. The smooth nature of the twine yarn makes it simple to remove dirt.</p>
<p>Sample 6</p>		<p>Twine and cotton wool The sample was created through adhesion, knot, and stitching methods with twine and cotton wool. To replicate the dazzle coming from the ring, more glitter glaze was applied to this sample.</p>	<p>The sample was taken into consideration for its flexibility and clean finishing in addition to its beautiful effect. With a lot of movement, this sample creates entanglement</p>
<p>Sample 7</p>		<p>Suede thread and knitting yarns This sample is the combination of suede thread and knitting yarns employing an adhesion process. The result brought together the tranquility of the white lotus with the skeletal flower's ethereal elegance. The ability of the skeleton flower to alternate between being nearly transparent and opaque at one point in time makes it special.</p>	<p>The sample was selected to maintain the conventional elements of a bridal gown. Although this sample is more difficult and sophisticated, the effects were still needed.</p>

Cosmopolitan perspectives on the selected detailing materials and design

The air-laid cloth, white knitting thread, white knitting yarns, Styrofoam, rubber napkins, twine knitting yarns, twine cotton wool and suede thread were the materials used for the bridal gown detailing. From a cosmopolitan localism perspective, these were not traditional materials that are natively used in Ghana, however, they were employed based on the exposure to these materials through education and personal research on them by researchers from an international data repository. Thus, these materials and how they were used as bridal detailing were obtained from global space but were used to reflect the ideological facets of weddings and their social interpretation in the local context. The knowledge acquired on the usage of these bridal detailing and knitting them with local ideology for contextual benefits reflect the flow of global concepts into local space for them to be modified. In the context of small, the whole project was done as an experiment allowing for the testing of different materials in small units, which nurtured the research team's creativity and promoted endless innovations and modifications. In the case of the method used for the design of the detailing, they were also developed based on sharing ideas with different designers thus the concept of openness and connectedness was employed in the development of the methods for the designs.

Environmental Sustainability considerations in the selection and design of the bridal detailing materials

A look at the selected detailing materials and design revealed a hidden sustainability difficulty, which was linked to the manufacturing of the yarns and cotton which used bleaches and other chemicals that have negative effects on the environment but that was beyond our selection prerogative. This was the main sustainability issue encountered but the design method and the materials posed no threat to the environment. For instance, Styrofoam was obtained from packaged box remnants, which advances the concept of reuse or upcycling to promote environmental sustainability. The selected rubber napkins could be cleaned easily with little water and can be detached and used for other designs after their usage.

Bridal Wedding Gowns with Unconventional Detailing Designs

All the seven bridal detailing materials selected for the research fitted nicely on the wedding gowns as captured in Figure one (1). The detailing materials were all upcycled as a remnant from other fashion projects and other home packages. Since the design method for the creation of detailing materials has already been touched on in Table 1, this section of the paper focuses on only the Styrofoam and rubber napkins detailing materials and how they were fixed on the bridal gown.



Figure one (1): Bridal Wedding Gowns with Unconventional Detailing Designs

The focus of this research was not the wedding gown but the detailing designs and how they fit well on the bridal gowns harnessing the strength of cosmopolitan localism to advance unconventional bridal gown detailing designs and materials. In fitting the detailing materials on the bridal wedding gowns, the design patterns were drawn on the right face of the bottom flare fabric with a pencil, the rubber napkins were cut into a variety of lengths and with the help of bead glue, the heated rubber was attached to the surface to create the surface effect as captured in Figure two (2). In achieving the required effect, the distance between the rubber and the heat over the lit candle was regulated, and every distance gave a degree of melt and burn hence, creating different effects.

This process was repeated till the entire surface was filled. Some corrections were made in the detailing stage. This occurred whilst combining different shades of the rubber napkins. Some shades were too distinct thereby creating contrasting features and hence, had to be removed. The final part of the detailing was to randomly fill the centre of the pattern with flaked Styrofoam and prepared glitter balls with the help of bead glue. After drying, the bottom piece was joined at the waistline to the upper piece, a centred skirt zip was fixed at the centre back seam of the design fabric, the lining was joined to the design fabric at the zip with a slip hemming and the garment was complete.



Figure two (2): Creating detail with heat using rubber napkins

The bridal gowns were tagged as intricate due to the detailing designs made from Styrofoam and rubber napkins. In selecting fabrics, soft and lightweight fabrics within the cotton genre were considered. After the fabric selection heat technique was replicated to represent the tried nature of the ring production process and the flaked Styrofoam sprinkled at the centre of the rubber napkins' heated patterns symbolically represents the transitional stage from the solid metallic elements before they melt into beautiful design patterns.

It also creates a soft blend between the bottom detailing, the overlaid nets, and the organza in creating a softer look. Figure three (3) is the pictorial representation of the intricate bridal gown with the Styrofoam and rubber napkins detailing.



Figure three (3): Unconventional Bridal Gowns with Styrofoam and rubber napkins detailing

The Unconventional Wedding Gowns Designs and their Relationship with Cosmopolitan Localism and Environmental Sustainability

The study brought into the limelight various levels or categories of unconventional bridal gown detailing material and their upcyclability. From a cosmopolitan localism context, the research utilised concepts from Marchesa's (2017) collection, which highlighted some levels of unconventional approaches by experimenting with techniques and natural materials into creating unconventional gowns.

Demeter (2015), also showcased among others, a wedding dress made entirely out of tissue paper. A comparison of both designs and several unconventional gowns highlighted some contributing factors including materials, fabric, colour, techniques, and construction techniques that were practiced globally and were adopted from a concept perspective and localised with available local materials. Demeter (2015) employed similar unconventional approaches in her materials, techniques, and construction methods. However, the outcomes of this study were mainly seen in two levels of unconventional

design. That is materials and techniques. As seen in Figures one (1) and two (2) with the help of the heat technique, rubber napkins were used in creating detailing on the gown yet, the base fabric is composed of mercerized cotton, soft lace, and a usual flare with an off-shoulder style. This gives the sense of cosmopolitan localism with an emphasis on the local and global flows of ideas.

It was also realized that unconventional materials could be sourced from different fields in the field of fashion, for example, burrowing construction materials from architecture into bridal detailing or sourcing from different categories within the fashion field, thus from one category to another example, casualwear, leisurewear, sportswear, formal wear, bridal wear, and other categories. However, this research explored upcycled products such as Styrofoam and rubber napkins that are available within our locality. Amankwah et al. (2013) also explored these unconventional materials and designs and realized through their study that garment detailing techniques could be explored and adapted into forming simple improvised techniques. This resulted in understanding how garment-detailing techniques functioned, their principles of mechanism and how they could be adapted. With the knowledge of these principles, improvised techniques such as loop, heat, stitch, adhesion, melt, knot, coiling, layering, braiding, and polish were used in experimenting with sourced materials for detail samples in this research, which reflected open and connected facets in cosmopolitan localism.

When the entire detailing methods and designs are checked against environmental sustainability, it is clear that the concept of upcycling can help to reduce waste that is from plastics by using them in unconventional approaches that will reduce the usage of actual fabrics that are costly and causes environmental pollution in their production.

Also, the bridal wedding gowns produced could be re-purposed for other occasional activities to reduce the one-time usage of the gowns.

CONCLUSION

Cosmopolitan localism in fashion design propagates the concept of being abreast with global fashion trends while remaining locally focused. In the context of bridal detailing it helps in advancing unconventional bridal wedding detailing due to the availability of local materials and the need to utilise them to reflect sustainability, which is a global phenomenon being practiced for reducing the negative impact of fashion and textile on the environment. The project though a proposal, affirms that the concept of small which is got to do with producing few products through experimentation is crucial to nurture creativity and endless experimentation as advanced by Manzini (2011). The research also elicited the concept of openness, which advances the concept of open innovation, which deals with adaptation and modification of designs based on customers' bridal detailing preference and local materials available. The last was connectedness, which promotes collaboration for solving challenges in design, which was also utilized in this research. Utilizing cosmopolitan localism ultimately nurtures the creation of different detailing methods, improves designing skills, increases knowledge creation and cross-pollination of ideas, and critical thinking skills for different design challenges. Finally, it results in the tangible product being sought as captured in Figure four (4).

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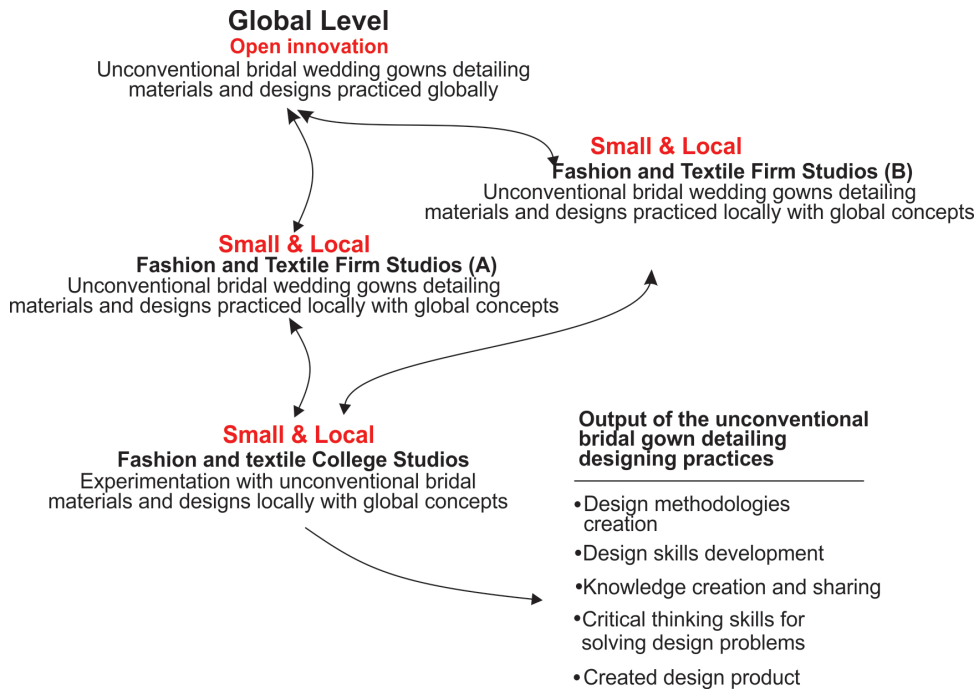


Figure four (4): The output of unconventional bridal gown detailing designing practices through cosmopolitan Localism

Figure four (4) further shows that the global space operates on open innovation, which enables small fashion firms to pick inspirations and localised them to meet their customers' needs. The fashion designers from these small firms A and B also share ideas with one another. The developed unconventional approaches are also picked by researchers and students and experimented. Advancing unconventional approaches in bridal gown detailing shows that sourcing materials from different fields to the fashion field produces garments with distinct features since materials from various fields differ in structure and use. Nonetheless, sourcing within the fashion field produces detailing with similar effects since materials slightly differ in usage. Thus, with minimum technology, materials can be transformed using improvised techniques into creating pleasing outcomes in bridal detailing.

Policy Recommendations

The study recommends that non-governmental and governmental agencies make it a policy to employ the concept of cosmopolitan localism to promote sustainability in training fashion designers, artisans, and students in unconventional bridal gown detailing to keep the fashion industry abreast with global innovations that are sustainability inclined.

Practical Recommendations

Sourced materials have different characteristics. Some materials are naturally strong in structure whilst others are delicate. To convert those delicate materials for bridal detailing, different techniques need to be explored through cosmopolitan localism to meet the kind of stress the bridal wedding gown goes through while developing other techniques that utilise off-cuts from fabrics

and other fashion design materials for bridal detailing.

Recommendation for Further studies

For further studies, it is recommended that research should be conducted into unconventional materials in garment detailing to explore materials that are used in homes that are not textile inclined but pose a challenge to sustainability that could be used for bridal wedding gown detailing through cosmopolitan localism. Further studies can also be conducted to ascertain how the general public will perceive the upcycled bridal detailing materials from a value and social perspective.

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