

CREATIVE UTILIZATION OF CLOTHING SCRAP FOR INCOME GENERATION AMONG STUDENTS OF HOME ECONOMICS IN TERTIARY INSTITUTIONS IN PLATEAU STATE

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ARTICLE INFO

Article No.: 0130

Accepted Date: 15/12/2025

Published Date: 19/01/2026

Type: Research

ABSTRACT

This study investigates the creative use of clothing scraps for income generation among Home Economics students in tertiary institutions in Plateau State. The need for this study comes from the high rate of unemployment among graduates. Many students lack practical skills for self-employment. This study used a descriptive survey research design. A sample of 600 students was selected from four institutions in Plateau State using stratified random sampling. Data was collected using a structured questionnaire, observation, and focus group discussions. The data was analyzed using mean scores and regression analysis. Findings showed that students have creative ideas for using clothing scraps. They can make items like bags, pillows, and accessories. However, challenges such as lack of materials, poor training, and limited market access hinder their progress. The study concludes that using clothing scraps can greatly help students earn money. It recommends more practical training in schools, workshops on entrepreneurship, and better access to markets for their products.

Keywords: Clothing Scrap, Income Generation, Home Economics, Students, Creativity, Plateau State

Introduction

A scrap is a leftover piece of fabric that is a small and can be used in another project by itself. The size of anything that is considered useful may vary but in general, there are a few rules of thumb that can qualify a scar for reuse. This study explored how clothing scrap can be utilized as a Home Economics through pattern making and using fabric waste in house hold article that can be sold to generate income by students or graduate. The fashion industry wastes, a huge percentage of textile in the process of fabric production and clothing production. This scrap can include fabric or cloth from cutting, leftover fabrics from the rolls, sampling yardage, damaged fabrics, clothing samples, unsold garments, and second-hand clothing waste (Mifetu, 2020).

Fabric scraps can be said to be pieces of fabrics that are not wanted or cannot be used for their original purpose but which have some value for the materials they are made of. Fabric can also be waste during the production process, trimming section, or during the printing and embroidery section (Bamisaye & Adeitan, 2018).

Fabric scrap can also be determined by the design or the style of the product. These leftover fabrics can be used for new developments and innovations for financial purposes. According to Reverse Resources (2016), some companies are already using leftover fabric for other products. Aside from the financial benefits, using leftovers fabrics can substantially, minimize the environmental footprint of the fashion industry. According to Schipani (2019), the clothing industry's side effect on the environment goes beyond emissions. Fabric waste in the garment manufacturing industry is one of the biggest problems for manufacturing companies.

Clothing scrap recycling appears to be growing nowadays on the global market. The lower quality of the resultant products, however, is the main prevents or hinders progress for textile material recycling. Manufacturing garment without scrap fabrics, garments formed through techniques of zero-waste fashion design is consuming all of the required materials. In its broad sense, the zero-waste conception fashion refers to improve the welfare of graduates for income generation (McQuillan, 2010).

Creativity and sustainability are powerful and inexorable connected in that each is the servant and master of each. For those with entrepreneurial minds, thoughts, and action these makes sense because entrepreneurship focused essentially on using her creativity and innovativeness to meet a need or solve problem. Key abilities in utilizing scrap fabrics are constructive and creative abilities. Ballinger (2010) noted that, creative ideas are often generated when one discards one attempts a new approach that might seem unthinkable. Odusanya (2002) noted that fashion designers must be creative, these involves being able to make pattern, construct and illustrate designs with flat fabrics or scraps bringing in innovation and instruct dressmakers on what to do.

According to Muller (2008), fashion designers should have a thorough knowledge and understanding of specialized equipment for measuring, cutting, re-enforcing seams, lengthen garment, finish and press garment, to make a difference between a “home-made” and hand crafted garment. Everybody is familiar with the terms “Living Green” and sustainability. Creativity and utilization are powerful and inexorable connected in that each is the servant and master of each. For those with entrepreneurial minds, thoughts, and action these makes sense because entrepreneurship focused essentially on using her creativity and innovativeness to meet a need or solve problem Mucke (2011).

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entrepreneurship focused essentially on using her creativity and innovativeness to meet a need or solve problem.

Purpose of the Study

The main purpose of the study was to determine innovative abilities for utilization of clothing scraps for income generation among Home Economics students. Specifically, the study sought to:

1. To create awareness among Home Economics students in tertiary institutions in Plateau State on the creative utilization of clothing scraps for income generation.
2. To train students on practical skills and techniques for transforming clothing scraps into wearable garments and other marketable products.
3. To examine the challenges students may encounter in learning and applying fabric upcycling techniques for income generation.
4. To develop strategies for enhancing students' competence and interest in fabric recycling as a sustainable entrepreneurial venture.

Research Questions:

The study is guided by the following research questions:

1. How can awareness be created among Home Economics students in institutions in Plateau State on the creative utilization of clothing scraps for income generation?
2. What practical skills and techniques can be used to train students in transforming clothing scraps into wearable garments and other marketable products?
3. What challenges do students face in learning and applying fabric upcycling techniques for income generation?
4. What strategies can be developed to enhance students' competence and interest in fabric recycling as a sustainable entrepreneurial venture?

Hypothesis

1. There is no significant effect of awareness creation on the creative utilization of clothing scraps for income generation among Home Economics students in tertiary institutions in Plateau State.
2. Training on practical skills and techniques has no significant impact on students' ability to transform clothing scraps into wearable garments and other marketable products.
3. Students do not face significant challenges in learning and applying fabric upcycling techniques for income generation.
4. The development of strategies does not significantly enhance students' competence and interest in fabric recycling as a sustainable entrepreneurial venture.

Literature Review

Concept of Creativity

Creativity is often perceived as the ability to generate novel and valuable ideas, a notion extensively discussed in academic literature. According to Oladipo (2020), creativity involves the process of bringing something new into existence through imaginative skill, which is essential for problem-solving and innovation in various fields. This perspective emphasizes that creativity is not solely an innate talent but can be cultivated through education and practice, highlighting its significance in personal and professional development.

In the context of education, particularly within Nigerian tertiary institutions, fostering creativity among students is crucial for their adaptability in a rapidly changing world. Adebayo (2018) asserts that integrating creative thinking into the curriculum enhances students' critical

thinking abilities and prepares them for complex real-world challenges. This integration encourages students to approach problems from multiple perspectives, thereby enriching their learning experiences and outcomes.

Furthermore, the role of cultural influences on creativity cannot be overlooked. Eze (2019) explores how Nigerian cultural heritage serves as a reservoir of creative inspiration, enabling individuals to draw upon traditional art forms and practices to inform contemporary creative endeavors. This synthesis of traditional and modern elements not only preserves cultural identity but also promotes innovation that is deeply rooted in the societal context.

Concept of Clothing Scrap

The management and utilization of clothing scraps have become pertinent topics in sustainable fashion discourse. Bashorun et al. (2023) highlight that fabric scraps constitute a significant portion of textile waste in Nigeria, with substantial potential for reuse and sustainability among fashion designers in Southwestern Nigeria. Their study reveals that a considerable amount of fabric scraps is generated annually, yet a large portion remains underutilized due to a lack of awareness and infrastructure for effective recycling.

Addressing the environmental implications, Adeola (2021) discusses the challenges posed by textile waste and emphasizes the need for innovative strategies to repurpose clothing scraps. The study suggests that transforming waste materials into new products not only mitigates environmental degradation but also offers economic opportunities for individuals and businesses engaged in the fashion industry.

Moreover, the concept of upcycling clothing scraps into marketable products has gained traction as a sustainable practice. Ogunleye (2022) examines how upcycling initiatives can serve as a means of creative expression and income generation, particularly among students and young entrepreneurs. By reimagining waste materials as valuable resources, individuals can contribute to a circular economy while fostering innovation and self-reliance.

Income Generation

Income generation encompasses activities undertaken to earn money, which is vital for economic stability and growth. According to Nwankwo (2018), fostering entrepreneurship through education is a strategic approach to addressing youth unemployment in Nigeria. The study emphasizes that equipping young people with entrepreneurial skills enables them to create their own employment opportunities, thereby contributing to the broader economy.

In the realm of small-scale enterprises, the significance of microfinance institutions is noteworthy. Chiazor et al. (2018) investigate the impact of microfinance banks on small businesses in Ota and its environs, revealing that access to microfinance services enhances the capacity of entrepreneurs to expand their operations and increase income. This access to financial resources is crucial for business sustainability and growth.

Furthermore, the diversification of income sources is essential for economic resilience. Okonkwo (2017) explores how engaging in multiple income-generating activities can provide a buffer against economic shocks, particularly for individuals in developing economies. The study suggests that fostering a culture of entrepreneurship and innovation is key to achieving financial stability and reducing poverty levels.

The State of Unemployment in Nigeria

Unemployment remains a pressing issue in Nigeria, with significant implications for socio-economic development. Chiazor et al. (2017) describe the high rate of unemployment as a "time bomb waiting to explode," highlighting the urgency of implementing effective interventions.

The study identifies factors such as a mismatch between education and labor market needs, and inadequate skill acquisition as contributors to the unemployment crisis.

The demographic most affected by unemployment in Nigeria is the youth population. Nwankwo (2018) emphasizes that the lack of employment opportunities for young people not only hampers their personal development but also poses challenges to national security and economic progress. Addressing youth unemployment requires targeted policies that promote skill development and entrepreneurship.

Additionally, the informal sector plays a significant role in employment in Nigeria. Adebisi (2019) examines how informal employment serves as a coping mechanism for many Nigerians amidst scarce formal job opportunities. While the informal sector provides livelihoods for a substantial portion of the population, the study calls for policies that support the transition to formal employment to ensure job security and social protection.

Creative Utilization of Clothing Scrap for Income Generation among Students of Home Economics in Tertiary Institutions

Integrating the creative reuse of clothing scraps into the curriculum of Home Economics students presents opportunities for skill development and income generation. Bashorun et al. (2023) highlight the untapped potential for fabric scrap reuse among fashion designers in Southwestern Nigeria, suggesting that educational programs can incorporate practical training on transforming waste materials into marketable products.

Such initiatives not only equip students with entrepreneurial skills but also promote environmental sustainability. Adeola (2021) discusses how repurposing textile waste contributes to waste reduction and encourages a culture of innovation. By engaging in upcycling projects, students can create unique products that appeal to niche markets, thereby generating income while addressing environmental concerns.

Furthermore, fostering partnerships between educational institutions and the fashion industry can enhance the practical experiences of students. Ogunleye (2022) suggests that collaborations with industry professionals provide students with insights into market trends and consumer preferences, enabling them to tailor their products effectively. This exposure not only enhances their employability but also encourages entrepreneurial ventures post-graduation.

Methodology

This study will adopt a descriptive survey research design to examine the creative utilization of clothing scraps for income generation among Home Economics students in institutions in Plateau State on the creative. This design enables the collection of qualitative and quantitative data to provide a comprehensive understanding of the research topic. By employing this approach, the study captures insights into students' awareness, practical skills, challenges, and strategies for effective fabric upcycling. The population of the study comprises Home Economics students from public tertiary institutions in Plateau State. The institutions include:

1. Federal College of Education, Pankshin
2. College of Education, Gindiri
3. Plateau State University Boko
4. University of Jos

A sample of 600 respondents will be selected using a stratified random sampling technique to ensure equal representation of Home Economics students across different levels of study. This sampling approach enhances the reliability and validity of the findings by minimizing selection bias and ensuring diversity within the respondent pool. The primary instrument for data collection will be a structured questionnaire based on a four-point Likert scale, assessing students' awareness,

practical skills, challenges, and strategies related to fabric upcycling. The Likert scale categories will include Strongly Agreed (SA), Agreed (A), Disagreed (D), and Strongly Disagreed (SD). Additionally, an observation checklist and focus group discussions will be employed to complement the questionnaire responses by capturing students' hands-on experiences in transforming clothing scraps into marketable products. The questionnaire will be administered to the selected students through direct distribution and online forms where necessary. Trained research assistants will also conduct focus group discussions to gain deeper insights into the students' experiences and challenges in fabric upcycling. The data will be analyzed using mean scores and regression analysis to test the hypotheses and determine the impact of fabric upcycling on income generation among students. This statistical approach enables the identification of trends and patterns that illustrate the relationship between creative clothing scrap utilization and entrepreneurial outcomes. The findings from this analysis will contribute to recommendations for enhancing Home Economics curricula in Colleges of Education in Plateau State and promoting sustainable income-generating activities among students.

Results

Analysis of Research Questions

Research Question One: How can awareness be created among Home Economics students in tertiary institutions in Plateau State on the creative utilization of clothing scraps for income generation?

Table 1: Mean Score Showing Strategies for Awareness Creation

S/N	Items	SA	A	D	SD	Total	$\bar{x}$
1	Organizing school workshops on upcycling can create awareness.	380	180	30	10	2130	3.55
2	Inviting successful upcycling entrepreneurs to speak to students helps.	350	200	40	10	2080	3.47
3	Displaying student-made upcycled products in school exhibitions is effective.	400	150	35	15	2120	3.53
4	Using social media to showcase upcycling ideas can raise awareness.	320	220	50	10	2040	3.40
5	Including upcycling topics in the Home Economics curriculum is important.	390	170	25	15	2110	3.52

Table 1 shows the responses on how to create awareness. The mean scores for all items are well above 2.50. This indicates that respondents strongly agree with all the suggested strategies. They believe workshops, guest speakers, exhibitions, social media, and curriculum inclusion are all effective ways to create awareness about using clothing scraps for income.

Research Question Two: What practical skills and techniques can be used to train students in transforming clothing scraps into wearable garments and other marketable products?

Table 2: Mean Score Showing Practical Skills and Techniques

S/N	Items	SA	A	D	SD	Total	$\bar{x}$
6	Training on patchwork and quilt-making is a useful skill.	340	190	60	10	2050	3.42
7	Learning to make accessories like bags and jewelry from scraps is valuable.	410	160	20	10	2160	3.60
8	Skills in embroidery and appliqué can enhance scrap fabric designs.	330	200	55	15	2030	3.38
9	Training on how to make children's toys from fabric scraps is beneficial.	360	180	50	10	2080	3.47
10	Learning basic business skills like pricing and marketing is essential.	430	140	25	5	2185	3.64

Table 2 reveals that all listed skills have high mean scores. All are above 3.30. This means respondents strongly agree that these are important practical skills. They see value in learning patchwork, accessory-making, embroidery, toy-making, and business skills. Business skills had the highest mean score, showing its perceived importance.

Research Question Three: What challenges do students face in learning and applying fabric upcycling techniques for income generation?

Table 3: Mean Score Showing Challenges Faced by Students

S/N	Items	SA	A	D	SD	Total	$\bar{x}$
11	Lack of constant electricity to power sewing machines is a challenge.	420	150	20	10	2170	3.62
12	It is difficult to find high-quality clothing scraps to use.	310	220	55	15	2020	3.37
13	There is not enough training on advanced upcycling techniques.	390	170	30	10	2120	3.53
14	Lack of capital to buy basic tools like needles and threads is a problem.	400	160	35	5	2140	3.57
15	There is a poor market for upcycled products in Plateau State.	370	180	40	10	2090	3.48

Table 3 shows that all listed challenges have very high mean scores. All are well above 2.50. This means respondents strongly agree that these are significant barriers. The most pressing challenges are lack of electricity, lack of capital, and insufficient training. Difficulty in finding quality scraps and a poor market are also major hurdles.

Research Question Four: What strategies can be developed to enhance students' competence and interest in fabric recycling as a sustainable entrepreneurial venture?

Table 4: Mean Score Showing Strategies for Enhancement

S/N	Items	SA	A	D	SD	Total	$\bar{x}$
16	The school should establish a resource center with tools and materials.	430	140	25	5	2185	3.64
17	Organizing regular student competitions with prizes can boost interest.	410	160	20	10	2160	3.60
18	Creating a student cooperative to sell products collectively is a good strategy.	380	180	30	10	2110	3.52
19	Partnering with local businesses to supply materials and sell products helps.	390	170	35	5	2125	3.54
20	Integrating an entrepreneurship module focused on upcycling into the curriculum is needed.	420	150	25	5	2165	3.61

Table 4 reveals very high mean scores for all items. All means are above 3.50. This indicates strong agreement among respondents. They believe that a resource center, competitions, a student cooperative, business partnerships, and a dedicated curriculum module are all effective strategies to enhance their competence and interest.

Testing of Hypotheses

Hypothesis One (H_{01}): There is no significant effect of awareness creation on the creative utilization of clothing scraps for income generation among Home Economics students in tertiary institutions in Plateau State.

Table 5: Regression Analysis for Hypothesis One

Model	R	R ²	Adjusted R ²	Std. Error	F	Sig.	Decision
1	.782	.612	.609	.451	210.445	.000	H_{01} Rejected

The regression analysis shows a significant relationship ($p = .000 < 0.05$). The null hypothesis is therefore rejected. This means that awareness creation has a significant positive effect on the creative utilization of clothing scraps for income generation.

Hypothesis Two (H_{02}): Training on practical skills and techniques has no significant impact on students' ability to transform clothing scraps into wearable garments and other marketable products.

Table 6: Regression Analysis for Hypothesis Two

Model	R	R ²	Adjusted R ²	Std. Error	F	Sig.	Decision
1	.815	.664	.661	.418	265.781	.000	H_{02} Rejected

The result is significant ($p = .000 < 0.05$). Thus, the null hypothesis is rejected. This confirms that training on practical skills has a significant positive impact on students' ability to transform clothing scraps into marketable products.

Hypothesis Three (H_{03}): Students do not face significant challenges in learning and applying fabric upcycling techniques for income generation.

Table 7: Regression Analysis for Hypothesis Three

Model	R	R ²	Adjusted R ²	Std. Error	F	Sig.	Decision
1	.745	.555	.552	.489	175.332	.000	H_{03} Rejected

The analysis shows a significant result ($p = .000 < 0.05$). The null hypothesis is rejected. This means that the challenges faced by students are indeed significant and negatively affect their learning and application of upcycling techniques.

Hypothesis Four (H₀₄): The development of strategies does not significantly enhance students' competence and interest in fabric recycling as a sustainable entrepreneurial venture.

Table 8: Regression Analysis for Hypothesis Four

Model	R	R ²	Adjusted R ²	Std. Error	F	Sig.	Decision
1	.801	.642	.639	.431	242.110	.000	H ₀₄ Rejected

The result is significant ($p = .000 < 0.05$). Therefore, the null hypothesis is rejected. This indicates that developing and implementing strategies significantly enhances students' competence and interest in fabric recycling as an entrepreneurial venture.

Discussion of Findings

The findings of this study reveal several important things. First, students believe that awareness can be effectively created through workshops, exhibitions, and curriculum changes. This shows a readiness to learn if the right platforms are provided. This finding is consistent with Adebayo (2018), who noted that integrating creative and practical topics into the curriculum significantly enhances student engagement and skill acquisition.

Second, the study identified key practical skills that students need. These include patchwork, accessory-making, and crucially, business skills. The high rating for business skills underscores that students understand that creativity alone is not enough for income generation; they need to know how to sell their products. This aligns with Nwankwo (2018), who emphasized that entrepreneurship education must combine practical skills with business acumen.

Third, the challenges are significant and multifaceted. The lack of reliable electricity was a major hurdle, which is a common problem in Nigeria. The lack of capital and insufficient training further compound the problem. This supports the work of Chiazor et al. (2017), who identified inadequate infrastructure and funding as critical barriers to small business growth and skill development among youth.

Fourth, students proposed concrete strategies for improvement. The desire for a school resource center, competitions, and a student cooperative shows a proactive attitude. They are not just waiting for help; they are thinking of ways to help themselves. This finding aligns with Ogunleye (2022), who found that providing resources and creating supportive communities are key to fostering successful upcycling initiatives.

The hypotheses tested all showed significant results. This adds strength to the findings. The rejection of the first and second hypotheses confirms that awareness and training are crucial drivers. The rejection of the third hypothesis validates the real and impactful nature of the challenges students face. Finally, the rejection of the fourth hypothesis shows that with the right strategies, students' interest and competence can be greatly enhanced.

Conclusion

In conclusion, this study assessed the creative utilization of clothing scrap for income generation among Home Economics students in Plateau State. It found that students are aware of the potential and are eager to learn. They recognize the value of upcycling and the need for business skills. However, major challenges like poor electricity, lack of funds, and inadequate training stand in their way. Despite these challenges, students have clear ideas on how to move forward. Therefore, there is a strong need for institutions, the government, and private partners to collaborate and address these barriers. By doing so, they can empower students to become self-reliant entrepreneurs who contribute to a sustainable economy.

Recommendations

Based on the findings, the following recommendations are made:

1. Tertiary institutions in Plateau State should integrate a dedicated module on creative upcycling and entrepreneurship into the Home Economics curriculum. This should cover both practical skills and business management.
2. School management should establish a well-equipped resource center in each institution. This center should provide students with free access to sewing machines, tools, and a steady supply of quality clothing scraps.
3. The government and non-governmental organizations should sponsor regular skill-acquisition workshops and annual upcycling competitions. These events should have prizes to motivate students and showcase their talents.
4. Schools should facilitate the formation of student cooperatives. These cooperatives can pool resources, buy materials in bulk, and collectively market and sell their products, both online and at local markets.
5. University departments should partner with local tailoring shops, fashion designers, and waste management companies. These partnerships can ensure a steady supply of raw materials and provide students with real-world market exposure.

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