Journal of Creativity Student
http://journal.unnes.ac.id/journals/jcs

Garment Quality of Biodegradable ”Lydia Zois” as an Application of Neo-Eco and Sustainable Fashion

Syifa Nurhaliza Putri[1*], Sri Endah Wahyuningsih[2]

[1]Universitas Negeri Semarang, Indonesia, https://orcid.org/0009-0008-8639-5790
[2]Universitas Negeri Semarang, Indonesia, https://orcid.org/0000-0003-0793-9929

*Corresponding Author: syifanurhalizaputri@students.unnes.ac.id

Abstract
The global fashion industry currently faces serious challenges due to massive textile waste and greenwashing practices. In response, “Lydia Zois” clothing emerges with a Neo-Eco concept that integrates biodegradable materials and inspiration from bamboo weaving architecture. This study aims to analyze the quality of Lydia Zois clothing based on the evaluation of expert and trained panelists across six indicators: design, fit, aesthetics, sewing techniques, garment performance, and special product features. The research method employed is a quantitative descriptive approach. Data were collected through feasibility tests involving 5 expert panelists and 20 trained panelist using an assessment sheet with two clear response options: ‘Yes’ and ‘No’. the data were analyzed using percentage descriptive analysis. The results indicated that the overall average quality of Lydia Zois clothing is 95 % categorized as “Highly Suitable.” The highest scores reached 97% in the indicators of fit, garment performance, and special product features. The study concludes that Lydia Zois successfully integrates modern aesthetics with sustainability principles through innovative bamboo weaving details. However, aspects such as pressing techniques and lining efficiency remain key evaluation points for enhancing the quality of ready to wear garments in the future.

Keywords: garment quality, biodegradable, Neo-Eco, sustainable fashion, Lydia Zois

INTRODUCTION

The global fashion industry is currently facing serious challenges due to the dominance of fast fashion practices, which trigger mass production and the accumulation of textile waste that is difficult to break down naturally[1]. This phenomenon puts enormous pressure on the environment, from high carbon emissions to water pollution caused by the use of non-biodegradable synthetic fibers. In addition to its ecological impact, the industry often engages in greenwashing practices that obscure its true sustainability commitments through misleading marketing claims[2]. In response, the sustainable fashion paradigm began to develop rapidly, emphasizing resource efficiency through a circular economy approach[3].

One of the key strategies in this sustainability movement is the use of biodegradable polymers and fibers that can decompose naturally after their useful life as a solution to global plastic waste[4]. This material was developed to minimize solid waste accumulation without compromising the functionality of contemporary fashion. The use of environmentally friendly materials combined with innovative

[1] Julia Adamkiewicz et al., “Greenwashing and Sustainable Fashion Industry,” *Current Opinion in Green and Sustainable Chemistry* 38 (2022): 1–8, https://doi.org/10.1016/j.cogsc.2022.100710.
[2] by P Kenneth Pucker, “Harvard Business Review The Myth of Sustainable Fashion,” *Harvard Business Review*, 2022, https://123philosophy.wordpress.com/wp-content/uploads/2022/12/the-myth-of-sustainable-fashion.pdf.
[3] Milad Farzin et al., “The Determinants of Eco-Fashion Purchase Intention and Willingness to Pay,” *Spanish Journal of Marketing - ESIC* 27, no. 3 (2023): 348–66, https://doi.org/10.1108/SJME-07-2022-0158.
[4] Aya Samir et al., “Recent Advances in Biodegradable Polymers for Sustainable Applications,” *Npj Materials Degradation* 6, no. 1 (2022), https://doi.org/10.1038/s41529-022-00277-7.

design techniques, such as zero waste and pattern cutting, has proven to significantly reduce carbon footprints[5]. The implementation of circular materials is crucial to creating products that are not only beautiful but also responsible for the preservation of the ecosystem.

In its development, the Neo-Eco concept emerged as a design approach that combines ecological principles with modern aesthetics, making fashion a medium for consumers to express their green identity. However, the success of this concept depends heavily on the quality of the products produced. The quality of fashion is not only seen from a visual aspect, but also from its technical durability, which extends the product's lifespan in order to minimize repeated consumption[6]. This quality assessment covers various crucial indicators such as design accuracy, fit, aesthetics, and construction technique[7].

Although studies on sustainable fashion are becoming increasingly common, in-depth evaluations of the quality of finished products from local brands that use biodegradable materials are still very limited. Most studies tend to focus only on macro industry analysis or consumer behavior[8]. There is a gap in research on testing how environmentally friendly materials are applied to actual fashion designs that combine traditional and modern techniques. This is important to prove that environmentally friendly fashion can still meet professional standards without sacrificing functionality and visual beauty.

Lydia Zois's fashion collection serves as a case study that integrates the use of biodegradable materials with inspiration from woven bamboo houses into ready-to-wear fashion. The exploration of design elements inspired by architectural structures has proven to have a significant visual impact and enrich the silhouette details of fashion products. The uniqueness of this fashion collection lies in the application of woven decorative techniques[9], and appliqué applications that not only serve as decorative elements but also support the stability of the design's form and structure. The use of meticulous decorative techniques has been proven to provide a strong aesthetic character and exclusivity to contemporary clothing. Based on this background, the research question in this study is: how is the quality of Lydia Zois' biodegradable clothing assessed by expert panelists and trained panelists?

The purpose of this study is to determine the quality of Lydia Zois' biodegradable clothing based on the results of expert panelists and trained panelists. In addition, this study aims to analyze the quality of Lydia Zois' clothing in terms of design, size, aesthetics, sewing techniques, clothing performance, and product features. Through a descriptive quantitative approach, the results of this study are expected to provide an empirical description of the feasibility of environmentally friendly clothing in Indonesia's creative industry and serve as a reference for the development of sustainability-oriented designs.

METHOD

This study uses a quantitative descriptive approach to assess the quality of Lydia Zois' clothing as an implementation of the Neo-Eco concept and sustainable fashion. This approach is used to describe the quality of the research object systematically through numerical data without manipulating variables. The focus of the study is directed at presenting a systematic description of clothing

[5] Nilna Arzaq Karimah and Hendri Hermawan Adinugraha, "Analisis Penerapan Sustainable Fashion Dan Trend Forecasting 2023-2024 Pada Butik Wilsenwillim Analysis of the Implementation of Sustainable Fashion and Forecasting Trends 2023-2024 in Wilsenwillim Boutiques Nilna Arzaq Karimah Hendri Hermawan Adinugraha," *IEB JOURNAL Islamic Economics and Business Journal* 6, no. 1 (2024): 15–35, https://doi.org/https://doi.org/10.30863/iebjournal.v6i1.6610.

[6] Riikka Piippo, Kirsi Niinimäki, and Maarit Aakko, "Fit for the Future: Garment Quality and Product Lifetimes in a CE Context," *Sustainability (Switzerland)* 14, no. 2 (2022), https://doi.org/10.3390/su14020726.

[7] Nadia Aprilia, Nuri Aslami, and Budi Harianto, "Analisis Pengendalian Kualitas Produksi Pakaian Dengan Metode SQC (Analysis of Clothing Production Quality Control Using the SQC Method)," *Akuntansi Bisnis Dan Manajemen (ABM)* 31, no. 2 (2024): 150–62, https://journal.stie-mce.ac.id/index.php/jabm/article/view/1442/550.

[8] Subhasis Ray and Lipsa Nayak, "Marketing Sustainable Fashion: Trends and Future Directions," *Sustainability (Switzerland)* 15, no. 7 (2023), https://doi.org/10.3390/su15076202.

[9] Afidatun Nisa and Edi Suwasana, "Penerapan Variasi Teknik Anyaman Pada Busana Exotic Drama . Style Exotic Dramatic Cenderung Menerapkan Hal-Hal Yang Tidak Biasa (Unik). Warna- Kain Ini Adalah Untuk Mengembangkan Karya Seni Yang Sudah Ada Menjadi Sebuah Karya Yang Dengan Menggunakan Kai" 14, no. 2 (2022), https://doi.org/https://doi.org/10.69697/garina.v14i2.11.

characteristics based on actual observed conditions. The research variables are the quality of the clothing, which is measured through six main indicators: design, size, aesthetics, sewing technique, clothing performance, and product uniqueness[10].

Product feasibility testing is the final evaluation stage to determine the extent to which Lydia Zois clothing meets the established quality standards. The research procedure was carried out systematically through the stages of preparation, implementation, and data analysis. At the implementation stage, the assessment involved five expert panelists from the field of design, as well as twenty trained panelists from fashion design students. The involvement of these panelists was carried out to produce objective quantitative data through structured assessment instruments[11]. Expert testing is crucial to ensure that the aesthetic elements and design philosophy have been properly implemented in the finished product[12].

The data collection technique uses an assessment sheet with two definite answer choices, namely "YES" and "NO." Scoring is done by giving a value of 1 for the answer 'YES' and 0 for the answer "NO." The accumulation of scores on each indicator forms the basis for calculating the total score obtained. The results are then converted to determine the clothing eligibility category for each indicator. The use of precise assessment instruments in manual decoration techniques, such as weaving, is necessary to maintain quality standards in ready-to-wear clothing[13].

Data analysis was performed using descriptive percentage techniques to accurately present product quality profiles. Data analysis was performed systematically to convert raw data into meaningful information[14]. The formula used to calculate the percentage of eligibility refers to Sakdiyah (2021)[15] as follows:

$$P = \frac{f}{N} \times 100\%$$

Explanation:

P = Feasibility Percentage

f = Frequency of score acquisition (number of scores obtained)

N = Maximum number of scores (ideal score)

The clothing suitability category is classified based on the percentage range presented in Table 1.

Table 1. Percentage eligibility Criteria

Rentang Persentase (%)	Kriteria
81% - 100%	Highly Suitable
61% - 80%	Suitable
41% - 60%	Fairly Suitable
21% - 40%	Not Suitable
0% - 20%	Highly Unsuitable

This procedure ensures that the evaluation of Lydia Zois' biodegradable clothing is conducted in a measurable manner, so that the research results can be accounted for in supporting the development of a sustainable fashion industry.

[10] Aprilia, Aslami, and Harianto, "Analisis Pengendalian Kualitas Produksi Pakaian Dengan Metode SQC (Analysis of Clothing Production Quality Control Using the SQC Method)."

[11] Fitrah Sakdiyah, Sri Endah Wahyuningsih, and Nabila Fitria Ainul Hukma, "Fashion And Fashion Education Journal Kualitas Hasil Busana Kerja Menggunakan Lining Kain Erro Dan Kain Asahi," *Ffej* 10, no. 2 (2021): 68–73, https://journal.unnes.ac.id/sju/index.php/ffe.

[12] Silvia Ratna Sari et al., "JKIP : Jurnal Kajian Ilmu Pendidikan The Application Of Resin Techniques To Fabric As An Aesthetic Element Of A Bustier Combined With A Modern Ethnic Batik Wastra Dress Penerapan Teknik Resin Pada Kain Sebagai Elemen Estetika Bustier Yang Dipadukan Dengan" 7, no. 1 (2026): 102–14, https://journal.al-matani.com/index.php/jkip/article/view/1870/1181.

[13] Nisa and Suwasana, "Penerapan Variasi Teknik Anyaman Pada Busana Exotic Drama . Style Exotic Dramatic Cenderung Menerapkan Hal-Hal Yang Tidak Biasa (Unik). Warna- Kain Ini Adalah Untuk Mengembangkan Karya Seni Yang Sudah Ada Menjadi Sebuah Karya Yang Dengan Menggunakan Kai."

[14] Sofwatillah Jailani et al., "Teknik Analisis Data Kuantitatif Dan Kualitatif Dalam Penelitian Ilmiah," *Journal Genta Mulia* 15, no. 2 (2024): 79–91.

[15] Sakdiyah, Wahyuningsih, and Hukma, "Fashion And Fashion Education Journal Kualitas Hasil Busana Kerja Menggunakan Lining Kain Erro Dan Kain Asahi."

RESULTS AND DISCUSSION

Product Description of "Lydia Zois" Clothing

Lydia Zois's fashion collection is an artistic manifestation of the Neo-Eco: The Future Sustainability concept, which is embodied in the grand theme of Meta Nusantara. This work carries the philosophy of Ecophilia, a term that represents a harmonious loving relationship between humans and the universe. The aesthetics of this fashion are deeply inspired by the sturdiness of woven bamboo house architecture, which is then translated into fashion designs with flexible, strong, yet environmentally friendly characteristics[16].

Visually, Lydia Zois' design structure highlights a dynamic silhouette through the play of asymmetrical cuts on the top and bottom. The top consists of a long-sleeved blouse with cuffs and shirt collar details, which is then layered with a sleeveless vest. The vest is designed with an asymmetrical closure system from right to left, complete with accents of manually woven straps that give an exclusive impression. For the bottom, an A-line skirt combined with additional asymmetrical peplum fabric further emphasizes the modern character. The dynamic asymmetrical cut details in this collection can be seen in full in Figure 1.

[16] Mia Mar'atus Solikhah and Peppy Mayasari, "Penciptaan Teknik Anyaman Pada Busana Day Wear Dengan Sumber Ide Sparkling Tunjungan," *Jurnal Online Tata Busana* 13, no. 1 (2024): 11–20, https://ejournal.unesa.ac.id/index.php/jurnal-tata-busana/article/view/67302.

Figure 1. The "Lydia Zois" Fashion Collection

The selection of materials is a crucial aspect in supporting the narrative of sustainability. All garments are constructed using biodegradable materials such as Tencel fiber, linen, and organic cotton, harmoniously combined with Sashiko-patterned batik fabric[17]. The use of natural colors, predominantly beige and dark army green, creates a warm yet elegant impression.

The decorative details on this outfit are the soul of the overall look, where neat manual weaving is combined with twisted beadwork. The beads are arranged with great precision to form a bamboo stem structure on the vest and skirt, creating a visual harmony that reinforces the philosophical identity of bamboo as a symbol of resilience and innovation in the realm of sustainable fashion.

Recapitulation of Research Results Data

Based on the established descriptive quantitative methodology, the following is a summary of the data from the assessment of Lydia Zois' clothing quality. This data was obtained from the accumulated scores of 5 expert panelists and 20 trained panelists on six main indicators using a

[17] Siti Baidurah, "Methods of Analyses for Biodegradable Polymers: A Review," *Polymers* 14, no. 22 (2022), https://doi.org/10.3390/polym14224928.

percentage formula referring to[18].

Overall Quality Analysis

Overall, Lydia Zois's designs received very high praise from all panelists. The results showed that the quality of the products was generally at a very optimal level.

Table 2. Recap of Lydia Zois Fashion Quality Assessment

Quality Indicator	Mean (%)	Category
Design	92%	Highly Suitable
Size	97%	Highly Suitable
Neo-Eco Aesthetics	93%	Highly Suitable
Sewing Techniques	94%	Highly Suitable
Clothing Performance	97%	Highly Suitable
Special Features	97%	Highly Suitable
Average Total	95%	Highly Suitable

(Source: Processed research data, 2026)

The results of the descriptive percentage analysis show a total average value of 95%. Referring to the percentage feasibility criteria set out in the methods section (81–100%), Lydia Zois's clothing is classified as "Highly Feasible." This proves that, objectively, the integration of biodegradable materials with modern design concepts has met high fashion product quality standards[19].

Comparison of Expert Panelist and Trained Panelist Assessments

To ensure the validity of the data from a professional and educational practitioner perspective, the assessment results were separated between the expert panelists (professional designers/academics) and trained panelists (fashion design students).

Table 3. Comparison of Expert Panelist vs. Trained Panelist Assessment Results

Indicator	Expert Panel (%)	Trained Panel (%)
Design	96%	92%
Size	97%	97%
Aesthetics	92%	94%
Sewing Techniques	98%	93%
Clothing Performance	98%	97%
Special Features	98%	96%
Group Average	96%	94%

(Source: Research Data Processing, 2026)

Based on Table 2, it can be seen that the Expert Panel gave a higher average score of 96%, with the highest scores in the aspects of Sewing Technique, Garment Performance, and Special Features (98% each). This shows that in terms of construction and design innovation, this product has met very strict industry standards.

Meanwhile, trained panelists gave an average score of 94%, with the highest score in the aspect of Clothing Size and Performance (97%). The consistency of scores above 90% from both groups of panelists confirms that the quality of Lydia Zois clothing is not only recognized technically by experts, but also aesthetically and functionally by practitioners in the field of fashion.

Analysis of Neo-Eco Design Quality and Aesthetics

The implementation of the concept bridges the relationship between humans and nature. Based on the panelists' evaluation, these design and aesthetic aspects are the main pillars that strengthen the identity of clothing as a sustainable fashion product. The high aesthetic rating is based on the form, weight, and appearance of the clothing.[20].

a. Visualization of the Philosophy of Ecophilia in Design

The design indicators for Lydia Zois's clothing achieved a feasibility rating of 92%. This score

[18] Sakdiyah, Wahyuningsih, and Hukma, "Fashion And Fashion Education Journal Kualitas Hasil Busana Kerja Menggunakan Lining Kain Erro Dan Kain Asahi."

[19] Aprilia, Aslami, and Harianto, "Analisis Pengendalian Kualitas Produksi Pakaian Dengan Metode SQC (Analysis of Clothing Production Quality Control Using the SQC Method)."

[20] Tahap Penguasaan, Kemahiran Proses, and Sains Dalam, "1 , 2 , 3 123," 2000, 778–83.

reflects the success in translating the architectural structure of bamboo houses into modern clothing anatomy. The use of asymmetrical lines on the vest that closes from right to left and the application of asymmetrical peplums on A-line skirts provide a dynamic visual effect. This structure is not only aesthetic, but also represents the flexibility and strength of bamboo as the main symbol of the collection. The resulting silhouette gives a sturdy yet light impression, in line with the dynamic and unique character of contemporary ready-to-wear fashion.

b. Neo-Eco Aesthetics and Manifesting Green Identity

The implementation of Neo-Eco aesthetics scored 93%. This achievement was supported by the selection of a natural color palette that combines beige with dark army green, creating a warm, calm impression that is in harmony with the ecosystem. This manifestation of green identity is further strengthened through the use of biodegradable materials such as Tencel fiber, linen, and organic cotton. The combination of these natural textiles with Sashiko-patterned batik fabric provides a rich visual dimension. The striped pattern on the batik fabric is not merely decorative, but a symbol of natural harmony and the essence of modernity in the realm of sustainable fashion, positioning this garment as a medium of environmental awareness for its wearers[21].

c. Ornament Details and Exclusive Value

Analysis of the aesthetic aspects also highlights the complexity of the decorative techniques applied manually. The application of woven details on the vest with contrasting color combinations demonstrates a high level of precision that gives the garment its exclusivity. The intricate details of this manual weaving technique can be clearly seen in Figure 2.

Figure 2. Details of Manual Weaving on the Vest Section

The presence of woven straps adds a textural accent that enriches the design's dimensions. In addition, the use of twisted sequins that form a bamboo trunk structure on the vest and skirt becomes the center of visual attention. These sequin details reaffirm the main source of inspiration for the collection while proving that traditional manual techniques can be elegantly integrated into futuristic designs with a “META NUSANTARA” theme.

d. Harmonization of Form and Meaning

The aesthetic quality of this garment is considered highly commendable due to its ability to combine the functional aspects of an inner blouse and long-sleeved cuffed sleeves. The neat shirt collar provides a formal foundation that contrasts with the more expressive asymmetrical vest. The harmony between environmentally friendly materials and innovative decorative techniques proves that the principle of sustainability does not have to sacrifice visual beauty. The consistently high ratings from both groups of panelists show that Lydia Zois has successfully become a real case study in changing the paradigm of sustainable fashion from a mere environmental concept to a creative product with professional aesthetic appeal and authentic artistic value.

Analysis of Clothing Size Accuracy and Performance

Functional aspects that include size accuracy and clothing performance are crucial indicators in

[21] Karimah and Adinugraha, “Analisis Penerapan Sustainable Fashion Dan Trend Forecasting 2023-2024 Pada Butik Wilsenwillim Analysis of the Implementation of Sustainable Fashion and Forecasting Trends 2023-2024 in Wilsenwillim Boutiques Nilna Arzaq Karimah Hendri Hermawan Adinugraha.”

proving that biodegradable materials can meet professional standards without sacrificing user comfort. Based on the data processing results, both indicators achieved very high scores, namely 97% each. This achievement confirms the maturity of designers in the pattern construction process and the selection of the right materials for the target female market.

The accuracy of Lydia Zois's clothing sizes demonstrates a high level of precision, as evidenced by how well the garments fit the body. This success is clearly evident in crucial details such as the perfectly straight collar of the shirt, the precise positioning of the cuffs on the wrists, and the stable proportions of the A-line skirt silhouette, even when paired with an asymmetrical peplum. The precision of this pattern construction has been recognized by expert panelist Widya Andhika Aji, who stated that the overall technical execution of the garments is very neat and visually superior. This score of 96% shows that Lydia Zois' garments have exceeded the basic standards of functionality for contemporary ready-to-wear fashion.

In line with the aspect of size, the performance of the clothing also scored an outstanding 97%. This high score is a validation of the use of environmentally friendly materials such as Tencel fiber, linen, and organic cotton. Product quality is a key factor that determines durability and user satisfaction in the long term[22].

This performance reflects the Ecophilia philosophy, where users feel comfortable because they are reconnected with the elements of nature through the clothes they wear[23]. However, there is an evaluative note from Sudarna Suwarsa that serves as an important point for development; he suggests that for the ready-to-wear clothing category, the use of additional layers such as interlining or lining needs to be considered so that the clothing remains lightweight and adaptable to the tropical climate. This shows that even though the clothing is considered very suitable, material weight efficiency remains a major consideration in the sustainable fashion industry[24].

Overall, the synergy between precision sizing and material performance in Lydia Zois answers the industry's doubts about the durability of sustainable fashion. As confirmed by Putri Indah Puji Lestari, the results of this fashion line have achieved excellent performance in all functional aspects that were tested. This success proves that the principle of sustainability not only supports ecosystem conservation but also delivers professional technical quality for users in the modern era.

Sewing Technique and Construction Analysis

Analysis of sewing and construction technical indicators is a fundamental pillar in proving that Lydia Zois's clothing is not only aesthetically superior, but also has technical durability that meets professional standards. Based on the data analysis results, this indicator received an average score of 94%, with very high appreciation from the expert panel reaching 98%, while the trained panelists gave a score of 93%. This high rating reflects the designer's maturity in executing the complexity of asymmetrical designs and combining various biodegradable material textures into a cohesive and strong garment[25].

The strength of Lydia Zois's clothing construction lies in the precision of the sewing technique, which is able to maintain the stability of natural materials such as Tencel and linen. Technically, Widya Andhika Aji acknowledged that the execution of these garments was very neat and showed superior visual quality. Putri Indah Puji Lestari echoes this sentiment, assessing that the garments have achieved excellent performance in every aspect of technical evaluation. The consistent quality of stitching and clean finishing prove that these eco-friendly garments can compete with conventional garments, while also addressing the challenge of professional standards for sustainable fashion in the local market.

---

[22] Debby Arisandi, Aan Shar, and Rizky Hariyadi, "Pengaruh Kualitas Produk, Kualitas Pelayanan, Harga, Faktor Emosional, Biaya Dan Kemudahan Terhadap Kepuasan Belanja Busana Secara Daring," *Kompleksitas: Jurnal Ilmiah Manajemen, Organisasi Dan Bisnis* 10, no. 2 (2021): 92–102, https://doi.org/10.56486/kompleksitas.vol10no2.163.

[23] Piippo, Niinimäki, and Aakko, "Fit for the Future: Garment Quality and Product Lifetimes in a CE Context."

[24] Aya Abdelmeguid, Mohamed Afy-Shararah, and Konstantinos Salonitis, "Investigating the Challenges of Applying the Principles of the Circular Economy in the Fashion Industry: A Systematic Review," *Sustainable Production and Consumption* 32 (2022): 505–18, https://doi.org/10.1016/j.spc.2022.05.009.

[25] Aprilia, Aslami, and Harianto, "Analisis Pengendalian Kualitas Produksi Pakaian Dengan Metode SQC (Analysis of Clothing Production Quality Control Using the SQC Method)."

The most striking construction detail is found in the asymmetrical vest, which incorporates manual weaving techniques. The process of combining beige and dark army green weaves requires a high degree of precision to ensure that the joints between the fabric and the weave remain flat and do not ripple. In addition, the application of twisted sequins that form a bamboo stem structure on the vest and skirt is not merely a decorative element, but also serves to add density to the asymmetrical parts. This meticulous decorative technique gives Lydia Zois a high level of exclusivity that sets it apart from mass-produced products, while also minimizing premature damage to natural fabric fibers.

Despite receiving a high score, several evaluative notes from practitioners provided valuable insights for improving product durability. Sudarna Suwarsa emphasized the importance of efficiency in using linings or interlinings for ready-to-wear clothing, suggesting that they should be optimized without adding unnecessary weight. In addition, the pressing process was highlighted as a critical area by Risfani Rahmawati and Desi Eka Wulandari. They noted that while the stitching was neat, the pressing on the tricot and critical sections should be performed more thoroughly to ensure the garment looks sharper, more precise, and visually professional.

From a circular economy perspective, mature sewing techniques are a determining factor in extending the lifetime of garments. The stronger and neater the construction of a garment, the longer it can be used by consumers, which directly contributes to reducing textile waste from repeated consumption. As explained in the literature on sustainability, technical durability is a tangible form of a designer's responsibility to the ecosystem. Thus, Lydia Zois' garments have successfully proven that environmentally friendly natural materials can be processed using professional construction techniques, resulting in works that are not only visually beautiful but also ecologically responsible[26].

Analysis of Product Features and Exclusivity Value

The analysis of the Product Distinctiveness and Exclusivity Value indicators was a crucial conclusion to the discussion, as this point proved the position of Lydia Zois clothing as an innovative product that is different from mass-produced clothing. Based on the data analysis results, this indicator recorded a very high average score of 97%. More specifically, the expert panelists gave an almost perfect score of 98%, while the trained panelists gave a score of 96%. These figures confirm that Lydia Zois clothing has a very strong signature style or unique character, making it a product with high selling value in the field of sustainable fashion.

The main feature that makes this outfit so appealing is the designer's success in integrating traditional craft techniques into a futuristic silhouette with a “META NUSANTARA” theme. The application of manual weaving details with a combination of beige and dark army green colors on the vest provides a rich and exclusive visual texture. This weaving technique is not merely decorative, but a physical representation of the bamboo structure that served as the main inspiration. The presence of woven rope accents adds exclusivity for the wearer, especially for younger consumers who tend to seek fashion products with unique clothing narratives[27].

In addition to the weaving, the uniqueness of this product is enhanced by the application of bamboo sequins made using twisted sequins. These details are arranged in such a way as to form a bamboo stem structure that gives a three-dimensional visual dimension to the vest and A-line skirt. The visualization of the sequin application details that form the bamboo stem structure on the vest and skirt can be seen in Figure 3.

[26] Adamkiewicz et al., “Greenwashing and Sustainable Fashion Industry.”

[27] Atillah Rosya Imaniyah and Urip Wahyuningsih, “Penerapan Teknik Anyaman Dengan Motif Corak Insang Pada Busana Pengantin,” *BAJU: Journal of Fashion & Textile Design Unesa* 3, no. 1 (2022): 1–10, https://doi.org/10.26740/baju.v3n1.p1-10.

Figure 3. Details of the Twisted Sequin Application on the Vest and Skirt

The harmonization between Sashiko batik motifs and sequin details creates a strong modern heritage aesthetic. This exclusivity addresses the challenges of today's fashion industry, which is often caught up in greenwashing practices. Lydia Zois proves her commitment to sustainability not only through marketing claims, but also through the use of biodegradable materials and authentic manual techniques. The meticulous decorative details serve as tangible proof that eco-friendly products can still exude glamour and professional sophistication.

Philosophically, the uniqueness of this fashion is also reflected in the application of the Ecophilia concept. The harmonious relationship between humans and nature is embodied in every piece of tencel, linen, and cotton fabric used. The asymmetrical character of the fashion depicts the dynamics of life and cultural diversity in the archipelago, making it a medium of identity expression for its users. As stated by experts, one of whom is Widya Andhika Aji, the originality of the idea and visual execution of this garment is at a very high level. The uniqueness of the asymmetrical peplum structure combined with a vest creates a fresh new silhouette in the category of ready-to-wear ethnic gala garments.

Achieving a score of 97% on this indicator confirms that Lydia Zois's fashion has successfully set a new standard in the application of Neo-Eco fashion. This product not only offers functionality but also artistic value and environmental responsibility. By maintaining neat manual techniques and strong design originality, this fashion has great potential to become a reference for the development of a creative industry oriented towards sustainability. The uniqueness of Lydia Zois's clothing ultimately proves that amid the onslaught of fast fashion, works created with ecological awareness and meticulous craftsmanship still hold a special place and high economic value in the eyes of fashion professionals.

CONCLUSION

Research on the quality of Lydia Zois clothing as an implementation of the Neo-Eco concept and sustainable fashion concluded that this product is overall in the Highly Suitable category with an

average percentage of 95%. Specifically, this clothing shows significant advantages in terms of size, clothing performance, and product uniqueness, each of which achieved a score of 97%. This proves that biodegradable materials such as Tencel, Linen, and natural Cotton can be constructed into functional gala clothing with good thermal comfort and stable shape retention.

The philosophy of ecophilia, inspired by the structure of woven bamboo houses, has been successfully translated into an authentic modern heritage design. The use of manual weaving details and bamboo sequins has become a signature style that adds aesthetic value while strengthening the product's sustainable identity. Although technically the sewing aspect received very high appreciation from experts (98%), objective evaluation shows that the pressing process and efficiency of lining use are the main areas that require further optimization to improve the quality of ready-to-wear fashion in the future. This collection is empirical proof that local values can be regenerated through a futuristic design approach that is responsible for the environment.

ACKNOWLEDGMENTS

The author would like to express sincere gratitude to all those who have contributed to the completion of this research. Thank you to my supervisor, Mrs. Sri Endah Wahyuningsih, for providing guidance and direction in developing the Lydia Zois fashion concept. Special thanks are extended to five expert panelists: Sudarn Suwarsa, Risfani Rahmawati, Desi Eka Wulandari, Widya Andhika Aji, and Putri Indah Puji Lestari for their time, technical evaluation, and constructive input. The author also thanks the twenty trained panelists from the Fashion Design Education program at Semarang State University who participated in the product feasibility testing. Finally, thanks to family and colleagues for their moral support throughout the research process.

REFERENCES

Abdelmeguid, Aya, Mohamed Afy-Shararah, and Konstantinos Salonitis. "Investigating the Challenges of Applying the Principles of the Circular Economy in the Fashion Industry: A Systematic Review." *Sustainable Production and Consumption* 32 (2022): 505–18. https://doi.org/10.1016/j.spc.2022.05.009.

Adamkiewicz, Julia, Ewa Kochańska, Iwona Adamkiewicz, and Rafał M. Łukasik. "Greenwashing and Sustainable Fashion Industry." *Current Opinion in Green and Sustainable Chemistry* 38 (2022): 1–8. https://doi.org/10.1016/j.cogsc.2022.100710.

Aprilia, Nadia, Nuri Aslami, and Budi Harianto. "Analisis Pengendalian Kualitas Produksi Pakaian Dengan Metode SQC (Analysis of Clothing Production Quality Control Using the SQC Method)." *Akuntansi Bisnis Dan Manajemen (ABM)* 31, no. 2 (2024): 150–62. https://journal.stie-mce.ac.id/index.php/jabm/article/view/1442/550.

Arisandi, Debby, Aan Shar, and Rizky Hariyadi. "Pengaruh Kualitas Produk, Kualitas Pelayanan, Harga, Faktor Emosional, Biaya Dan Kemudahan Terhadap Kepuasan Belanja Busana Secara Daring." *Kompleksitas: Jurnal Ilmiah Manajemen, Organisasi Dan Bisnis* 10, no. 2 (2021): 92–102. https://doi.org/10.56486/kompleksitas.vol10no2.163.

Baidurah, Siti. "Methods of Analyses for Biodegradable Polymers: A Review." *Polymers* 14, no. 22 (2022). https://doi.org/10.3390/polym14224928.

Farzin, Milad, Hooman Shababi, Golnoosh Shirchi Sasi, Marzie Sadeghi, and Rosha Makvandi. "The Determinants of Eco-Fashion Purchase Intention and Willingness to Pay." *Spanish Journal of Marketing - ESIC* 27, no. 3 (2023): 348–66. https://doi.org/10.1108/SJME-07-2022-0158.

Imaniyah, Atillah Rosya, and Urip Wahyuningsih. "Penerapan Teknik Anyaman Dengan Motif Corak Insang Pada Busana Pengantin." *BAJU: Journal of Fashion & Textile Design Unesa* 3, no. 1 (2022): 1–10. https://doi.org/10.26740/baju.v3n1.p1-10.

Jailani, Sofwatillah, Risnita,Saksitha, M Syahran, and Deassy Arestya. "Teknik Analisis Data Kuantitatif Dan Kualitatif Dalam Penelitian Ilmiah." *Journal Genta Mulia* 15, no. 2 (2024): 79–91.

Karimah, Nilna Arzaq, and Hendri Hermawan Adinugraha. "Analisis Penerapan Sustainable Fashion Dan Trend Forecasting 2023-2024 Pada Butik Wilsenwillim Analysis of the Implementation of Sustainable Fashion and Forecasting Trends 2023-2024 in Wilsenwillim Boutiques Nilna Arzaq Karimah Hendri Hermawan Adinugraha." *IEB JOURNAL Islamic Economics and Business Journal* 6, no. 1 (2024): 15–35. https://doi.org/https://doi.org/10.30863/iebjournal.v6i1.6610.

Kenneth Pucker, by P. "Harvard Business Review The Myth of Sustainable Fashion." *Harvard Business Review*, 2022. https://123philosophy.wordpress.com/wp-

content/uploads/2022/12/the-myth-of-sustainable-fashion.pdf.
Mia Mar'atus Solikhah, and Peppy Mayasari. "Penciptaan Teknik Anyaman Pada Busana Day Wear Dengan Sumber Ide Sparkling Tunjungan." *Jurnal Online Tata Busana* 13, no. 1 (2024): 11–20. https://ejournal.unesa.ac.id/index.php/jurnal-tata-busana/article/view/67302.
Nisa, Afidatun, and Edi Suwasana. "Penerapan Variasi Teknik Anyaman Pada Busana Exotic Drama . Style Exotic Dramatic Cenderung Menerapkan Hal-Hal Yang Tidak Biasa (Unik). Warna- Kain Ini Adalah Untuk Mengembangkan Karya Seni Yang Sudah Ada Menjadi Sebuah Karya Yang Dengan Menggunakan Kai" 14, no. 2 (2022). https://doi.org/https://doi.org/10.69697/garina.v14i2.11.
Penguasaan, Tahap, Kemahiran Proses, and Sains Dalam. "1 , 2 , 3 123," 2000, 778–83.
Piippo, Riikka, Kirsi Niinimäki, and Maarit Aakko. "Fit for the Future: Garment Quality and Product Lifetimes in a CE Context." *Sustainability (Switzerland)* 14, no. 2 (2022). https://doi.org/10.3390/su14020726.
Ray, Subhasis, and Lipsa Nayak. "Marketing Sustainable Fashion: Trends and Future Directions." *Sustainability (Switzerland)* 15, no. 7 (2023). https://doi.org/10.3390/su15076202.
Sakdiyah, Fitrah, Sri Endah Wahyuningsih, and Nabila Fitria Ainul Hukma. "Fashion And Fashion Education Journal Kualitas Hasil Busana Kerja Menggunakan Lining Kain Erro Dan Kain Asahi." *Ffej* 10, no. 2 (2021): 68–73. https://journal.unnes.ac.id/sju/index.php/ffe.
Samir, Aya, Fatma H. Ashour, A. A.Abdel Hakim, and Mohamed Bassyouni. "Recent Advances in Biodegradable Polymers for Sustainable Applications." *Npj Materials Degradation* 6, no. 1 (2022). https://doi.org/10.1038/s41529-022-00277-7.
Sari, Silvia Ratna, Adhi Kusumastuti, Pendidikan Tata Busana, Fakultas Teknik, and Universitas Negeri Semarang. "JKIP : Jurnal Kajian Ilmu Pendidikan The Application Of Resin Techniques To Fabric As An Aesthetic Element Of A Bustier Combined With A Modern Ethnic Batik Wastra Dress Penerapan Teknik Resin Pada Kain Sebagai Elemen Estetika Bustier Yang Dipadukan Dengan" 7, no. 1 (2026): 102–14. https://journal.al-matani.com/index.php/jkip/article/view/1870/1181.

AUTHOR(S) BIOGRAPHY

Syifa Nurhaliza Putri is an undergraduate student in the Fashion Design education Study Program at Semarang State University. Her academic focus and creative passion lie in fashion design and innovative textile crafts. Her notable collection, "Lydia Zois," was seccessfully featured in the Gelar Karya exhibition.