



Convertible Party Clothing Design "Lumora" and Fashion Product Quality Analysis

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ABSTRACT - The issue of sustainable fashion has encouraged the development of fashion products that are not only oriented toward aesthetics, but also toward efficiency of use and product sustainability. One relevant design approach in this context is transformative or convertible fashion. This study aims to describe the design process and analyze the quality of "Lumora" convertible partywear, a garment that offers more than one visual appearance within a single product while maintaining the essential characteristics of party attire. The study employed a Research and Development (R&D) method using the ADDIE model, which consists of the stages of analysis, design, development, implementation, and evaluation. Product quality was assessed through validation tests conducted by expert panelists and trained panelists, based on several indicators, including design, aesthetics, sewing and finishing techniques, overall appearance performance, and product uniqueness. The results indicate that the "Lumora" convertible party dress falls into the very feasible category. The novelty of this research lies in the development of convertible partywear as a sustainable fashion solution through improved efficiency of use, supported by a systematic analysis of product quality. The findings suggest that convertible fashion designs have strong potential to support sustainable fashion practices by reducing the need for ownership of multiple party garments.

Keywords: Sustainable fashion, transformation, convertible, party fashion design.

INTRODUCTION

The development of the fashion industry is no longer solely oriented toward aesthetic aspects, but is increasingly required to respond to sustainability issues, particularly those related to efficiency of use and the problem of excessive clothing consumption. These conditions highlight the need for a design approach that not only delivers aesthetic value, but also provides functional solutions aligned with sustainable fashion principles. One design strategy that has emerged in response to these challenges is transformable or convertible fashion. This approach enables a single fashion product to offer multiple features, functions, or appearances through specific design mechanisms, such as modular systems, detachable components, or structural transformations.

Research conducted by Samkari and Tawfiq (2022) demonstrates that the application of a modular design approach in transformable fashion design can enhance flexibility and efficiency of use without compromising aesthetic value or wearer comfort. Modular design enables a single garment to consist of multiple components that can be reconfigured to create varied appearances according to users' needs. These findings indicate that the concept of transformable fashion is not only functionally relevant, but also capable of maintaining high visual quality and design value.

In line with the increasingly dynamic modern lifestyle, the concept of convertible fashion has emerged as a design solution that offers both visual and functional flexibility for users with high mobility. This concept allows a single garment to take on more than one form or appearance, thereby improving efficiency of use and supporting the

principles of sustainability. Lin et al. (2025) state that the application of modern design principles in transformable clothing can generate adaptive variations in appearance without compromising comfort or functional performance.

Various previous studies have implemented the concept of convertible fashion across diverse contexts and design approaches. Anikmah and Russanti (2025), for example, applied laser-cut techniques in convertible fashion design inspired by daisy flowers. Their study emphasized the exploration of visual details and decorative structures that simultaneously function as transformation elements, demonstrating how aesthetic components can also serve functional purposes in fashion design.

Similarly, Mulyono et al. (2025), through their study *Penciptaan Convertible pada Busana Ready-to-Wear Deluxe dengan Sumber Ide Rumah Adat Tikel Balung*, developed a convertible concept for ready-to-wear deluxe fashion by integrating local cultural values. The garments were designed to offer multiple appearances within a single product, enabling versatility of use across various occasions while preserving visual character and cultural identity.

Other studies reflect comparable trends. Herman (2024), in research on convertible techniques in women's workwear, focused on functional transformation to support dynamic professional activities, emphasizing comfort, practicality, and suitability for formal work environments. Rakhmatilloevna (2025), through *Adaptive Transformable Fashion: Design and Development of Modular Garment Collections*, developed modular garments oriented toward adaptability and efficiency of use. Meanwhile, Anburika et al. (2025) examined the creation of convertible ready-to-wear deluxe menswear inspired by the traditional houses of the Osing Tribe, highlighting the role of cultural identity in transformable fashion design. Hosa and Katiah (2025) designed a transformable dress based on Solo batik motifs, integrating transformable concepts with traditional Indonesian patterns while maintaining the integrity of batik aesthetics as the primary visual identity.

A review of these studies indicates a consistent focus on functional flexibility, efficiency of use, and cultural exploration in the application of convertible fashion concepts. However, most prior research has concentrated on workwear, semi-formal clothing, or ready-to-wear categories, with limited attention given to party fashion. This reveals a clear research gap, as the application of convertible or transformable concepts in party clothing remains relatively underexplored and has not been examined in depth.

Party fashion differs fundamentally from other fashion categories due to its higher aesthetic demands, luxurious impressions, and strict suitability for formal or celebratory contexts. As noted by Qorib et al. (2023), party clothing functions not only as body covering but also as a medium for expressing the wearer's identity, social status, and character. Consequently, party fashion design requires careful consideration of material selection, silhouette development, and visual detailing to achieve an elegant and exclusive appearance. Wijayakusuma and Indarti (2023) further emphasized that party fashion design demands meticulous visual processing, beginning with the selection of inspiration sources, followed by silhouette development and detailed decorative treatment to create harmonious and refined designs.

In addition to aesthetics, the creation of party fashion also requires a balance between visual appeal, structural construction, and wearer comfort. Paramita et al. (2022) highlighted that party garments must achieve harmony between garment construction, precision of sewing techniques, and comfort, ensuring that the clothing is not only visually attractive but also wearable. Similarly, Rizkiya et al. (2022) demonstrated that the exploration of inspiration sources in party fashion design requires designers to translate visual characteristics into silhouettes, details, colors, and decorations without neglecting structural integrity and functional considerations. Robiha and Wahyuningsih (2023) also stressed the importance of inspiration sources in shaping visual identity and overall aesthetic concepts in party fashion design. These studies confirm that party fashion design is a complex process that extends beyond aesthetics to include careful planning of structure, construction, and comfort.

Applying the convertible concept to party clothing presents greater challenges compared to its application in other fashion categories. Party garments must not only transform functionally but also maintain visual elegance, luxury, and comfort in every form of transformation. Designers are therefore required to carefully balance aesthetic demands with structural strength, including connection systems, construction methods, and transformation mechanisms that are safe, practical, and comfortable for the wearer. Inappropriate transformation mechanisms may negatively affect both the visual quality and functional performance of party clothing.

Furthermore, the quality of convertible party clothing cannot be evaluated based on a single final appearance alone, but must be comprehensively assessed across all transformation forms. Consistency of aesthetics, structural stability, appearance performance, and construction reliability are essential aspects that must be maintained throughout each transformation. Rif et al. (2023) stated that design quality, material selection, and sewing techniques play a crucial role in determining overall garment quality. In line with this, Purnami et al. (2023) emphasized that product performance, both in terms of function and visual appearance, is a key indicator in assessing fashion quality.

Based on these considerations, this study proposes a convertible party dress design titled “Lumora” as a design solution that integrates sustainable fashion principles through efficiency of use without compromising the aesthetic demands of party fashion. *Lumora* is designed to present multiple looks within a single garment, thereby enhancing functional efficiency while maintaining elegance and luxury. The design was developed and showcased at the *Title Karya* fashion show “Meta Nusantara: The Future of Wearable Heritage”, under the subtheme *Adaptive Wardrobe*, which emphasizes fashion’s ability to adapt and transform without losing its identity as party attire.

Accordingly, the research problems addressed in this study are: (1) how is the design process of the convertible party dress *Lumora* conducted, and (2) how is the quality of the *Lumora* convertible party fashion product in terms of design, aesthetics, sewing and finishing techniques, performance, and product uniqueness.

This study aims to: (1) describe the design process of the convertible party dress *Lumora*, and (2) analyze the quality of *Lumora* based on design aspects, aesthetics, sewing and finishing techniques, performance, and uniqueness of the fashion product.

METHOD

The research method employed in this study is Research and Development (R&D) using the ADDIE development model, which consists of five stages: Analyze, Design, Development, Implementation, and Evaluation. According to Sugiyono (2023), the R&D method aims to produce a product while simultaneously testing its quality and feasibility through a systematic and structured development process. This perspective is reinforced by Mustofa (2025), who states that R&D integrates qualitative and quantitative approaches to ensure that the developed product is not only conceptually sound but also empirically validated and suitable for practical application. Therefore, the use of the R&D method in this study is considered appropriate to support both the development process and the quality evaluation of the convertible party dress *Lumora*.

The ADDIE model was selected due to its clear developmental framework and adaptability within the context of fashion design. Compared to other R&D models, ADDIE enables designers to conduct in-depth needs analysis at the initial stage and to systematically develop designs through to product quality evaluation. This approach is particularly relevant in fashion design, especially for convertible party clothing, which requires conceptual accuracy, structural strength, and aesthetic consistency across all stages of transformation. The effectiveness of the ADDIE model in fashion research has been demonstrated by Aileen and Ruhidawati (2022), who successfully developed fashion products inspired by the colors of the Sulawesi hornbill with very good quality outcomes, as well as by Viani and Prihatin (2024), who applied the ADDIE model in creative fashion design development.

In this study, the ADDIE model was applied to develop and analyze the quality of the convertible party dress *Lumora* in a systematic manner. The Analyze stage involved examining the main theme of the *Title Karya* fashion show “*Meta Nusantara: The Future of Wearable Heritage*”, the *Adaptive Wardrobe* subtheme, sources of inspiration, relevant theoretical frameworks, and previous studies as the conceptual foundation for the design. The Design stage focused on formulating the design concept and producing the final design of the *Lumora* convertible party dress. The Development stage involved translating the finalized design into a tangible fashion product through construction and finishing processes. The Implementation stage was conducted through product testing and assessment based on design aspects, aesthetics, sewing and finishing techniques, performance, and overall appearance. Finally, the Evaluation stage consisted of expert validation and feasibility analysis to determine the overall quality of the developed fashion product.

This study utilized both qualitative and quantitative data to support the analysis of the design process and the quality of the *Lumora* convertible party dress. Based on data sources, the research data consisted of primary and secondary data. Primary data were obtained directly from the research object through observation of the design and development process, visual documentation of the garment, and quality assessments conducted by expert validators. These data were used to describe the actual characteristics and performance of the *Lumora* convertible party dress. Secondary data were collected from literature reviews, previous research findings, and relevant references related to party fashion design and convertible fashion concepts, which served as theoretical support and comparative material for the study.

Qualitative data in this study were used to describe the design process of the *Lumora* convertible party dress in detail. Quantitative data were obtained through fashion quality assessments using structured assessment instruments with indicators covering design, aesthetics, sewing and finishing techniques, overall appearance performance, and

product uniqueness. In addition, quantitative data also included the results of instrument validity assessments conducted by expert validators.

The validity of the *Lumora* Convertible Clothing Design and Quality assessment instrument was examined through expert judgment by evaluating the suitability of the indicator items presented in the assessment sheet and incorporating expert suggestions to ensure instrument accuracy. The instrument validity test involved four expert validators with expertise in education and fashion. The validators consisted of two vocational school teachers from Ibu Kartini Vocational School—Mrs. Anik Supriyanti, S.Pd., and Mrs. Alif Imarti, S.Pd.—as well as two fashion lecturers, namely Mrs. Rina Purwanti, S.Pd., M.Si. from Ngudi Waluyo University and Mr. Godham Eko Saputro, S.Sn., M.Ds. from Semarang State University.

Instrument validity was determined using Aiken’s V coefficient, which measures the degree of agreement among experts regarding the relevance of each item. The Aiken’s V formula is expressed as follows:

$$V = \frac{\sum s}{n(c - 1)}$$

where:

- V = content validity index
- s = the difference between the score given by the validator (r) and the lowest score (lo)
- r = score assigned by the validator
- lo = lowest score on the rating scale (1 in this study)
- n = number of expert validators
- c = number of rating scale categories (4 in this study)

The validity coefficients obtained were then classified according to the criteria presented in **TABLE 1**.

TABLE 1. Instrument validity criteria.

| Validation Coefficient | Interpretation |
|------------------------|----------------|
| >0.8 | Highly Valid |
| 0.4-0.8 | Valid |
| <0.4 | Less Valid |

(Source: Putri et al. (2024))

The results of the Aiken’s V analysis indicate that all items in the observation instrument achieved a *highly valid* category. This is evidenced by the obtained Aiken’s V coefficient of 0.99, which exceeds the threshold value of 0.80. Therefore, each item of the instrument was deemed valid and appropriate for use as a data collection tool in this study.

The reliability of the instrument was assessed using the Intraclass Correlation Coefficient (ICC) method with the assistance of SPSS software. The analysis yielded a reliability coefficient of 0.755, which falls within the *good* reliability category. Furthermore, the significance value obtained was 0.015, which is less than 0.05, indicating that the reliability result is statistically significant. These findings demonstrate that the instrument has an adequate level of inter-rater consistency and is reliable for assessing the quality of the *Lumora* convertible party dress. The results of the reliability analysis are presented in **TABLE 2**.

TABLE 2. Fashion quality criteria.

| | Intraclass Correlation Coefficient | | | F Test with True Value 0 | | | |
|------------------|-------------------------------------|-------------------------------------|-------------|--------------------------|-----|-----|------|
| | Intraclass Correlation ^b | 95% Confidence Interval Lower Bound | Upper Bound | Value | df1 | df2 | Sig |
| Single Measures | .435a | .034 | .863 | 4.077 | 5 | 15 | .015 |
| Average Measures | .755c | .123 | .962 | 4.077 | 5 | 15 | .015 |

(Source: Personal documents)

The data analysis technique in this study employed observation sheet scores measured using a Likert scale. The assessments were conducted by expert panelists and trained panelists in the field of fashion. Expert panelists were selected based on specific criteria, including professional competence in fashion design, experience in designing or producing party clothing, and a comprehensive understanding of aesthetic, construction, and fashion quality aspects.

The expert panelists consisted of five individuals: Widya Andhika Aji, S.Psi., S.I.Kom. (designer of Widya Kebaya), Noor Laila Rahmadhani, S.Pd., M.Pd. (lecturer at Ngudi Waluyo University), Ratih Dinawati (designer of

Ina Priyono), Novita Dwi Parastuti (designer of My Dayli Hijab), and Sudarna Suwarsa (designer of Zoezoe). In addition to expert panelists, assessments were also conducted by trained panelists selected based on their basic knowledge and skills in the field of fashion. The trained panelists consisted of 20 active students who had completed the Party Fashion Design course.

The assessment results were used to measure the quality level of the developed product. Product quality testing was conducted to determine whether the developed product was feasible for use. The quantitative analysis of the assessment data was carried out using a percentage-based scoring formula as follows:

$$P = \frac{\sum n}{\sum n_i} \times 100\%$$

Description:

| | | |
|------------|---|----------------------------------------------------------|
| P | : | Product quality presentation |
| $\sum n$ | : | Total score obtained (score from respondents/validators) |
| $\sum n_i$ | : | Total maximal score of assessment |

The calculation of the quality of the *Lumora* convertible party fashion product was adjusted to the range of responses on the assessment scale employed in this study. Based on the Likert scale used, the maximum percentage score was set at 80%, while the minimum percentage score was 20%. The level of product quality and feasibility was then determined by referring to the percentage-based criteria presented in **TABLE 3**.

TABLE 3. Fashion product quality criteria.

| Percentage | Categories |
|------------|-----------------|
| 81% - 100% | Highly Worth It |
| 61% - 80% | Worthy |
| 41% - 60% | Quite Decent |
| 21% - 40% | Not Eligible |
| 0% - 20% | Very Unworthy |

RESULTS AND DISCUSSION

Results

Analyze

In the Analyze stage, the design of *Lumora* began with an analysis of the *Title Karya* theme, “Meta Nusantara: The Future of Wearable Heritage,” under the subtheme *Adaptive Wardrobe*, which emphasizes the need for future fashion that is adaptive, flexible, and firmly rooted in cultural values. This analysis guided the selection of the convertible party fashion concept as a strategic response to demands for efficiency of use and sustainability within the context of formal fashion.

An analysis of party fashion characteristics indicates a high level of complexity, as party attire must simultaneously fulfill aesthetic, luxury, and comfort standards. Purnami et al. (2023) emphasized that party fashion requires careful selection of silhouettes, high-quality materials, and precise sewing techniques to create a harmonious visual appearance without compromising wearer comfort. These findings confirm that applying the convertible concept to partywear presents greater challenges compared to casual or everyday clothing categories.

Furthermore, the analysis of the convertible concept refers to Herman (2024), who stated that convertible clothing enables a single garment to possess multiple forms and functions. Supporting this perspective, Zakiyah and Patrizia (2024) demonstrated that the convertible concept can be effectively developed through the integration of traditional and modern fabrics. In line with these studies, the present research found that the combination of kawung batik with Armani silk and Yamaha silk successfully supports shape transformation in party fashion while maintaining an impression of luxury and elegance.

In addition, stained glass was selected as the primary source of inspiration to strengthen the artistic value of the design. This inspiration was translated into mosaic and sequin embellishments, supported by a color palette dominated by navy blue, electric blue, and turquoise green accents. These design choices indicate that visual inspiration and color

selection play a crucial role in maintaining the aesthetic consistency of the *Lumora* convertible party dress across each form of transformation.



FIGURE 1. Convertible party fashion moodboard "Lumora."

Design

At the Design stage, the researcher developed a convertible party dress inspired primarily by stained glass ornamentation. The design process was supported by fashion design analysis and an examination of the application of design elements and principles in fashion, including silhouette, color, texture, and decorative details. At this stage, the convertible party outfit was formally named "Lumora."

The name *Lumora* is derived from the word *luminous*, symbolizing brilliance, light, and radiance, as well as the word *alter*, which signifies change or transformation. This naming conceptually reflects the essence of convertible fashion and aligns with the *Adaptive Wardrobe* subtheme of the *Title Karya*, which emphasizes the ability of fashion to transform and adapt in response to the wearer's needs.

The final design outcomes of the *Lumora* convertible party dress are presented in **TABLE 4**.

TABLE 4. Source analysis of convertible party fashion ideas "Lumora."



Sabrina Sleeve



One of the placement of the convertible in the "Lumora" fashion in the second look



Chapel Train



The use of *the chapel train* in the "Lumora" fashion is used as part of the convertible system applied, where in the first look the *chapel train* is folded and transformed so that it forms a short skirt in the second look



Plain Tulle Fabric and Neckline



Placement of plain tulle fabric on the skirt and neckline of party fashion "Lumora"



Stained Glass



The placement of mosaic decorations on the "Lumora" clothing is on the chapel trail and the hood



Bustier



Bustier on party dress "Lumora"



Luxurious effective materials
(Satin Silk)



The use of Armani silk and Yamaha silk materials that have a sparkly impression (luxurious)



Kawung Batik Fabric



The placement of kawung batik fabric in "Lumora" clothing is on the trail capel and bustier



Hood



The use of the hood on the "Lumora" outfit functions as part of the convertible system, where in the second look the hood turns into a sabrina sleeve



A-Line Silhouette



There are two "Lumora" fashion silhouettes, namely H (first look) and I (second look)

The design elements of the *Lumora* convertible party dress were applied in an integrated manner to establish the garment's visual character and structural coherence. Vertical lines on the bodice and skirt emphasize an H silhouette in the first look and an I silhouette in the second look, while horizontal lines function as proportion delimiters within the dress structure. Curved lines applied to the sleeves and neckline create a soft and feminine impression, whereas diagonal lines on the garment panels introduce a dynamic and contemporary visual effect. Directional elements are

evident in the sleeve drapery, which forms horizontal and curved directions, thereby strengthening the visual focus on the upper part of the garment.

The elements of form are expressed through the overall silhouette, the volume of the Sabrina-style sleeves created using drapery techniques, and the addition of a hood in the first look and a chapel train in the second look. These elements provide distinct dimensions and characters for each transformation. The sizing elements of the garment were carefully adjusted to the model's body proportions to maintain silhouette balance and ensure clarity of design details across both looks.

Textural elements are highlighted through the application of sequins and mosaic embellishments, which create embossed and luminous surface effects. These textures are supported by the use of Armani silk and Yamaha silk fabrics, whose soft and fluid characteristics facilitate garment transformation while maintaining elegance. The incorporation of plain tile fabric on the skirt contributes a lightweight and translucent impression.

Value elements are reflected in the contrast between light and dark tones of the base fabric and decorative components, as well as in the variation of material transparency, which enhances visual depth. Color elements are dominated by gradations of electric blue and dark blue, complemented by turquoise blue accents along the neckline and subtle white highlights as contrast. This color composition ensures a balanced, elegant appearance with a strong visual focus.

Overall, these findings indicate that the careful application of design elements effectively supports the aesthetic, structural, and comfort aspects of the *Lumora* convertible party dress. The integrated design approach enables the garment to transform into multiple forms without compromising its aesthetic value or functional performance, thereby realizing the convertible concept in party fashion optimally.



FIGURE 2. (a) Final fashion design "Lumora" front view of look 1 (left) and look two (right), (b) final fashion design "Lumora" rear view of look 1 (left) look 2 (right).

Development

At the Development stage, the *Lumora* convertible party dress was realized based on the outcomes of the Analyze and Design stages. This stage focused on translating conceptual designs into an adaptive party garment through structured shape-shifting mechanisms, while consistently maintaining the defining characteristics of party fashion, namely aesthetic appeal, a sense of luxury, and visual functionality. The findings at this stage indicate that the convertible concept can be systematically applied to partywear when supported by careful design planning and well-integrated transformation mechanisms.

The transformation of *Lumora* is manifested in two primary looks. The first look features a hood and a chapel train, creating a dramatic and formal appearance suitable for ceremonial contexts. In the second look, the hood is transformed into a Sabrina-style sleeve, while the chapel train is folded and integrated into the garment structure, resulting in a lighter and more feminine short dress. The addition of a removable belt functions to maintain waist definition and support proportional balance in the second look. These findings suggest that shape-shifting in convertible party fashion serves not only a functional role but also contributes to preserving silhouette harmony and overall aesthetic coherence.

The significance of the development outcomes is further reflected in the application of design principles, material selection, and decorative treatment. Visual balance is achieved through sleeve drapery techniques and the strategic placement of the *kawung* batik motif on the chapel train, which harmoniously integrates traditional and contemporary elements. The selection of Armani silk, Yamaha silk, and plain tulle enhances the luxurious impression while supporting transformation flexibility due to the fabrics' lightweight and fluid characteristics. Additionally, the application of sequins and mosaic embellishments strengthens visual focus and reinforces the identity of party fashion.

Overall, the Development stage demonstrates that *Lumora* is not only procedurally successful in terms of construction and transformation, but also conceptually effective in presenting convertible partywear that is aesthetically refined, adaptive, and appropriate for use across different formal contexts.



(a)



(b)

FIGURE 3. (a) Results of convertible party dress "Lumora" look 1, (b) Results of convertible party dress "Lumora" look 2.

Implementation and Evaluation

At the Implementation stage, the researcher realized the fashion product based on the design developments formulated in the previous stages. This stage involved producing the *Lumora* convertible party dress in accordance with the finalized design, construction plans, material selection, and transformation mechanisms.

Subsequently, the Evaluation stage was conducted to assess the suitability between the design concept and the realized fashion product. The evaluation focused on several assessment indicators, including design quality, aesthetic aspects, sewing and finishing techniques, fashion performance or overall appearance, and product uniqueness.

The evaluation of the *Lumora* convertible party dress was carried out by five fashion experts: Widya Andhika Aji, S.Psi., S.I.Kom. (designer of Widya Kebaya), Noor Laila Rahmadhani, S.Pd., M.Pd. (lecturer at Ngudi Waluyo University), Ratih Dinawati (designer of Ina Priyono), Novita Dwi Parastuti (designer of My Dayli Hijab), and Sudarna Suwarsa (designer of Zoezoe). In addition to expert evaluations, assessments were also conducted by 20 trained panelists consisting of active students who had completed the Party Fashion Design course.

The results of the data analysis obtained from both expert and trained panelists, calculated using a percentage-based scoring formula, are presented in **TABLE 5**.

TABLE 5. Results of the quality test of convertible clothing "Lumora."

| Panelists | Percentage | Criteria |
|-------------------|------------|-----------------|
| Fashion Expert | 89% | Highly Worth It |
| Trained Panelists | 96% | Highly Worth It |
| Friendly | 92% | Highly Worth It |

Based on the data analysis presented in the table above using a percentage-based scoring formula, the evaluation conducted by the five fashion experts yielded an average score of 89%, which falls into the very feasible category. Meanwhile, the assessment results from the 20 trained panellists showed a higher average score of 96%, also categorized as very feasible. Overall, the combined average score from both assessment groups reached 92%, indicating that the *Lumora* convertible party fashion product is highly feasible and suitable for use.

In addition to these overall evaluation results, the quality assessment of the *Lumora* convertible party dress was further analyzed based on the average percentage scores of each assessment indicator. This indicator-based analysis is presented in **TABLE 6**.

TABLE 6. The results of the "Lumora" convertible party dress quality test from the average per indicator.

| Panelists | Indicator | | | | |
|-------------------|-----------|------------|----------------------|-------------|------------|
| | Design | Aesthetics | Sewing/ Finishing | Performance | Uniqueness |
| Fashion Expert | 86% | 90% | 85% | 93% | 90% |
| Trained Panelists | 95% | 96% | 94% | 98% | 96% |
| Average | 91% | 93% | 90% | 96% | 93% |

The results of the quality assessment of the *Lumora* convertible party dress, based on the average percentage scores for each indicator obtained from fashion experts and trained panellists, reveal that the performance indicator achieved the highest scores in both assessor groups, with 93% from fashion experts and 98% from trained panellists. These findings indicate that the *Lumora* garment demonstrates excellent performance in terms of functionality as well as its ability to transform effectively in accordance with the convertible fashion concept.

The uniqueness and aesthetic indicators ranked second, with scores of 90% from fashion experts and 96% from trained panellists. The consistently high ratings across both assessor groups suggest that the *Lumora* convertible party dress possesses strong visual appeal and is able to consistently represent the distinctive character of party fashion.

The design indicator obtained scores of 89% from fashion experts and 95% from trained panellists, indicating that the overall design structure and visual composition were perceived as highly feasible. Meanwhile, the sewing and finishing techniques indicator received scores of 85% from fashion experts and 95% from trained panellists. Although these two indicators yielded slightly lower scores compared to the others, they still fall within the very feasible category. This indicates that the construction quality and finishing details adequately support both the aesthetic appearance and functional performance of the garment.

Overall, the indicator-based evaluation confirms that the *Lumora* convertible party dress demonstrates a high level of quality across all assessed aspects. To facilitate clearer interpretation of the quality assessment results for each indicator, the data are presented visually in **FIGURE 4**.

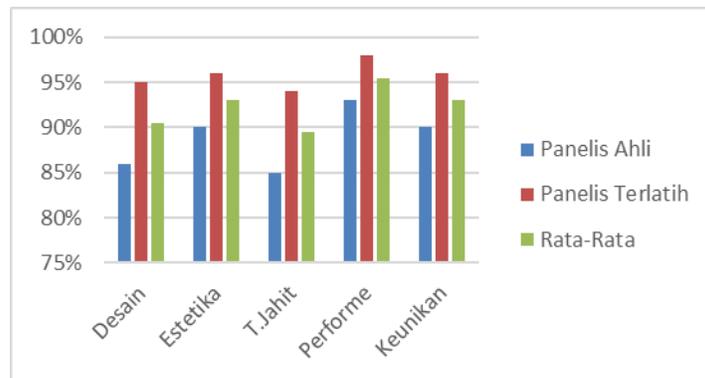


FIGURE 4. Bar chart of quality test results per indicator.

Furthermore, the average percentage scores for each indicator from both assessment groups are complemented by a detailed presentation of each panelist's evaluation for every assessment item. These results are presented in **TABLE 7**.

TABLE 7. The average results of each panelist's presentation for each question item.

| Indicator | | Fashion Expert | Trained Panellists | Average |
|-----------------------------|-----|----------------|--------------------|---------|
| Design | P1 | 88% | 95% | 92% |
| | P2 | 88% | 91% | 90% |
| | P3 | 84% | 94% | 89% |
| | P4 | 84% | 98% | 91% |
| | P5 | 84% | 95% | 90% |
| Aesthetics | P6 | 92% | 96% | 94% |
| | P7 | 92% | 96% | 94% |
| | P8 | 88% | 95% | 92% |
| | P9 | 88% | 98% | 93% |
| | P10 | 92% | 95% | 94% |
| Sewing/Finishing Techniques | P11 | 84% | 97% | 91% |
| | P12 | 84% | 90% | 87% |
| | P13 | 88% | 93% | 91% |
| | P14 | 84% | 93% | 89% |
| | P15 | 84% | 95% | 90% |
| Performance | P16 | 96% | 97% | 97% |
| | P17 | 92% | 96% | 94% |
| | P18 | 88% | 99% | 94% |
| | P19 | 96% | 99% | 98% |
| | P20 | 92% | 99% | 96% |
| Uniqueness | P21 | 88% | 98% | 93% |
| | P22 | 88% | 95% | 92% |
| | P23 | 92% | 92% | 92% |
| | P24 | 92% | 96% | 94% |
| | P25 | 92% | 98% | 95% |

To facilitate clearer differentiation of the percentage scores for each assessment item, the evaluation results are presented in the form of a diagram, as shown in **FIGURE 6**.

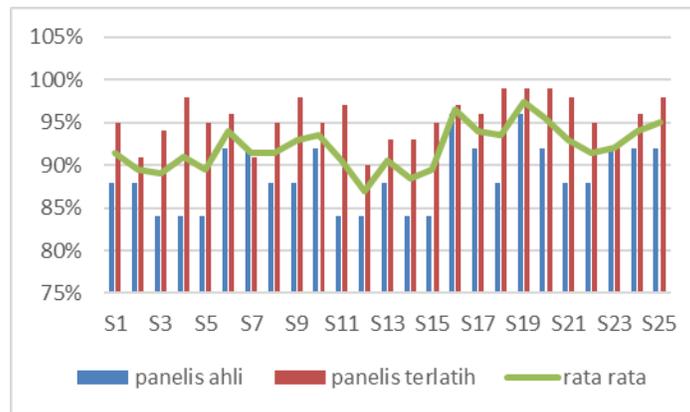


FIGURE 6. Percentage of panelists' assessment results for each item.

Based on the results of the fashion product quality assessment for each item, the average percentage score of all items exceeded 81%, which falls within the very feasible category. Accordingly, the *Lumora* convertible party dress is classified as having very good quality and is considered suitable for use as party attire.

Discussion

Fashion Design Process of the Convertible Party Dress Lumora

The design of the *Lumora* convertible party dress was driven by the need for fashion products that not only emphasize aesthetic appeal but also provide functional value through shape transformation. The convertible concept applied in *Lumora* allows a single garment to present multiple looks without compromising the defining characteristics of party fashion, such as elegance, luxury, and strong visual appeal. Accordingly, *Lumora* does not merely prioritize appearance but also offers flexibility of use that aligns with the dynamic needs of contemporary users and supports sustainable fashion principles through efficiency of use.

The application of design elements in *Lumora* was carried out in an integrated and coherent manner, encompassing line, form, color, texture, volume, and value. Vertical lines and a structured garment body emphasize the H and I silhouettes in each transformation, while curved and diagonal lines applied to the Sabrina sleeves and drapery introduce a sense of dynamism and femininity. Variations in form are further expressed through changes in silhouette, sleeve volume, the use of a hood, and the transformation of the chapel train into a short dress. These findings demonstrate that the application of convertible mechanisms in party fashion can be achieved without disrupting visual balance or overall aesthetic harmony.

In addition to form, color and texture play a significant role in reinforcing both aesthetic quality and functional adaptability. Gradations of blue combined with white accents create visual harmony and an elegant impression, while the selection of lightweight fabrics such as Yamaha silk and Armani silk supports smooth and practical shape transformation. The use of plain tulle on the skirt adds a light and translucent visual dimension, whereas sequins and mosaic embellishments enhance aesthetic value through luminous effects and embossed textures. Through this careful arrangement of design elements, *Lumora* successfully balances aesthetic expression and functional performance across each transformation.

The principles of aesthetics were applied consistently in both looks of *Lumora*. Unity is achieved through the harmony of color schemes, forms, and materials, even as the garment undergoes transformation. Balance is reflected in the proportional adjustment of sleeve volume, decorative placement, and the conversion of the chapel train into a short dress while maintaining visual stability. Rhythm is created through the repetition of sequin and mosaic motifs, while proportion and harmony ensure that each component of the garment contributes cohesively to the overall appearance.

Quality Analysis of the Convertible Party Dress Lumora

The results of the product quality assessment indicate that *Lumora* falls within the very feasible category based on evaluations by both fashion experts and trained panelists. The performance indicator achieved the highest scores, suggesting that the garment provides a high level of comfort and effectively supports shape transformation. This finding aligns with Purnami et al. (2023), who emphasized that performance and reliability are key indicators in evaluating clothing quality, particularly in relation to comfort, structural stability, and functional wearability. The high-performance score of *Lumora* indicates that its transformation mechanisms do not interfere with the primary functions of party attire.

The uniqueness and aesthetic indicators also received high scores, reflecting strong design innovation and visual appeal. This finding supports the perspective of Rif et al. (2023), who stated that fashion quality is not solely determined by functional aspects but is also influenced by aesthetic value and design uniqueness, which enhance user appreciation and acceptance. Within the context of sustainable fashion, design uniqueness in convertible clothing plays a crucial role by encouraging prolonged use through multiple appearance options within a single product.

Although the design and sewing and finishing techniques indicators obtained slightly lower scores compared to other aspects, they remained within the very feasible category. These results provide valuable insights for future refinement, particularly in enhancing construction precision and detailing to ensure consistency across all forms of transformation. Such improvements are important to further strengthen the technical quality of convertible party fashion products.

Overall, this study confirms that *Lumora* successfully realizes the concept of convertible party fashion in an innovative, aesthetic, and functional manner. The garment is not only suitable for party occasions but also holds potential as a reference model and learning resource for the development of convertible party fashion design.

Beyond serving as a research outcome, *Lumora* was realized as an actual fashion work and showcased at the *Title Karya* fashion exhibition “Meta Nusantara: The Future of Wearable Heritage” under the subtheme *Adaptive Wardrobe* on May 28, 2025. This presentation demonstrates that the research extends beyond conceptual and technical development and has tangible relevance within the context of fashion exhibitions and public appreciation. The inclusion of *Lumora* in this exhibition confirms that convertible party fashion design is not only academically and technically feasible but also artistically valuable and well-received by the fashion community. Consequently, *Lumora* may serve as a meaningful reference for future developments in convertible party fashion and highlights the practical relevance of research-based design in the fashion industry.

CONCLUSION

This study concludes that the convertible party fashion design “Lumora” was successfully developed as a fashion product that integrates aesthetic values and functional flexibility through the application of the convertible concept. This concept enables a single garment to present multiple looks without compromising the essential characteristics of party attire, namely elegance, luxury, and strong visual appeal. Accordingly, *Lumora* is not only oriented toward appearance but also offers flexibility of use that aligns with the practical needs of contemporary users.

The application of design elements and principles in *Lumora* was implemented in an integrated manner across each transformation. The treatment of line, form, color, texture, space, and visual value resulted in a silhouette that is structured yet dynamic and feminine. Transformations involving changes in silhouette, sleeve volume, and the conversion of the chapel train into a short dress demonstrate that the convertible concept can be effectively applied to party fashion without disrupting visual balance or aesthetic harmony.

The selection of colors, materials, and decorative techniques further supports the success of the convertible system, both in terms of visual aesthetics and wearer comfort. Based on evaluations conducted by fashion expert panelists and trained panelists, the quality of the *Lumora* convertible party dress falls within the very feasible category, with performance and uniqueness emerging as the most prominent aspects. These findings indicate that *Lumora* is not only suitable for presentation in *Title Karya* fashion exhibitions but also appropriate for practical use as party attire. Moreover, it has the potential to serve as a reference model and learning medium in the development of convertible party fashion, as well as to contribute to fashion practice and appreciation within the broader fashion community.

In this study, the convertible system primarily focuses on transforming the main structural elements of the garment, including the hood, sleeves, and chapel train. Future research is recommended to explore more complex modular systems, such as the incorporation of detachable components in skirts, decorative elements, or outer layers. Such

developments may increase the diversity of visual appearances while maintaining the aesthetic integrity, structural stability, and luxury characteristics required in party fashion design.

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