Feasibility of "Tirta Ardana" Sea-Themed Collection: Adapting 18th Century Corsets into Contemporary Bustier

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Abstract

Contemporary fashion design is a creative approach that reflects current trends through innovative visual expressions. Currently, contemporary fashion is increasingly exploring the integration of historical fashion elements with visual interpretations of nature. In response to this context, this study aims to reinterpret historical elements in a contemporary context through the development of "Tirta Ardana" fashion, which integrates the voluminous bustier silhouette characteristic of the 18th-century Victorian era with contemporary aesthetics, drawing inspiration from ocean waves. The method used is practice-based research, adapted from the ADDIE (Analysis, Design, Development, Implementation, Evaluation) procedure. Technical innovations focus on the construction of an 8-panel bustier pattern and material optimization to achieve a stable and voluminous hourglass structure without excessive weight. Validation through feasibility testing by fashion experts resulted in an average score of 85.78%, categorizing the product as "Highly Feasible." These findings confirm that the construction techniques and final quality of the "Tirta Ardana" successfully synergize contemporary aesthetics with functional stability optimally.

Keywords: victorian era, pattern development, contemporary fashion

INTRODUCTION

Contemporary fashion is a dynamic trend that remains open to cultural, artistic, and technological influences.[1] Contemporary is more accurately defined as something that is in line with the current times or the present.[2] Contemporary fashion can be interpreted as works that thematically reflect the current situation or the future, designed with a unique, expressive, creative, and modern style.[3] Contemporary fashion often looks to historical clothing as a source of inspiration, reworking traditional patterns and techniques into modern designs.[4]

In the history of Western fashion, the Victorian era of the 18th century under the British monarchy was one of the most influential historical periods, characterized by an emphasis on clothing

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[1]   Ardtech, "Busana Kontemporer: Kreativitas Fashion Di Era Modern," Desain & Bisnis Produk Fashion, October 3, 2025, https://share.google/ExHWelWuJJKFm6IhV.

[2]   Salsabila Sephiani and Dini Yanuarmi, "BUSANA KONTEMPORER DENGAN TEKNIK SMOCK JEPANG," *VisART Jurnal Seni Rupa & Desain* 3, no. 1 (June 2025): 207–14, https://doi.org/10.61930/visart.v3i1.1197.

[3]   "PUSAT FASHION KONTEMPORER DI YOGYAKARTA - E-Journal Universitas Atma Jaya Yogyakarta," n.d., https://e-journal.uajy.ac.id/1651/.

[4]   Enrico, "Perancangan Produk Fashion Kontemporer Berdasarkan Budaya Peranakan Dengan Menerapkan Motif Batik Pesisir," *JURNAL RUPA* 8, no. 1 (August 31, 2023), https://doi.org/10.25124/rupa.v8i1.5832.

structure, balanced body proportions, and a defined silhouette.[5] The main characteristic of women's clothing during this period was the emphasis on a structured waist and wide hips to create an iconic feminine silhouette, where the entire construction was based on the use of a bustier as the main support.[6] The bustier is an evolution of the combination of a bra and camisole that functions as the main structural support for outer garments, but in contemporary fashion practice, its function has transformed from merely structural underwear to an exterior design element.[7]

The main characteristic of contemporary fashion lies in achieving a bold silhouette without neglecting the wearer's comfort. This is in contrast to the restrictive construction of historical clothing. In the past, extreme volume silhouettes were achieved through the use of crinolines made of bamboo, rattan, and wire frames hung on waistbands, as well as the use of tight corsets that restricted the wearer's movement.[8]

Efforts to transform restrictive clothing construction into a contemporary functional context have sparked various academic studies. Research shows that attempts to adapt Victorian fashion styles to modern wedding attire through the use of sekar jagad batik can produce original, aesthetic products that are relevant to contemporary fashion in Indonesia. These findings highlight the importance of transforming rigid historical constructions into products that are more functional and comfortable to wear today. Another study conducted real development through Victorian clothing using the Cottagecore concept to make it more adaptive and comfortable for modern society. This study adopted modified classic Victorian elements, such as the use of A-line silhouettes, tiered skirts, and balloon sleeves, all of which were adapted to current trends. Through this approach, the article shows how complex clothing from the past can be simplified into modern designs while still maintaining their original aesthetic value.

Unlike these studies, this research fills the gap through pattern development and product feasibility testing. The urgency of this research is based on the main principle in fashion design, namely that the final quality of a garment is largely determined by the accuracy of the pattern construction that forms its basis. Pattern accuracy plays a very important role in making clothes.[9] This accuracy becomes even more critical in structured garments such as bustiers, because small errors in pattern construction can significantly affect the appearance and overall performance of the garment.

Based on this background, this study focuses on two main issues. First, it examines the process of developing an 8-panel bustier pattern inspired by the Victorian era, applied through a contemporary approach. Second, it evaluates the final quality of the developed bustier pattern and the final results of the produced garment. This design takes inspiration from the ocean theme, which is realized through material selection, sequin ornament application, and silhouette development, while still integrating Indonesian cultural values through the use of batik. The formulation of the focus of this study serves as an analytical basis for assessing the relevance of Victorian bustier pattern development in the

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[5] Widi Triani Putri and Inko Sakti Dewanto, "Peran Artbook Dalam Penyebaran Trend Fashion Victorian Era (Studi Kasus: '1950's Fashion')," *Jurnal Desain Komunikasi Visual*. 2, no. 1 (February 27, 2025): 12, https://doi.org/10.47134/dkv.v2i1.3784.

[6] Melisa Chandra Surya and P Pipin Tresna, "Sekar Jagad in Victorian Style," *Penelitian-Pendidikan* 469, no. 1 (January 1, 2013), http://ejournal.upi.edu/index.php/fesyen/article/download/9844/6092.

[7] Valerie Cumming, C. Willett Cunnington, and Phillis Emily Cunnington, "The Dictionary of Fashion History," *Choice Reviews Online* 48, no. 09 (May 1, 2011): 48–4851, https://doi.org/10.5860/choice.48-4851.

[8] Melisa Chandra Surya and P Pipin Tresna, "Sekar Jagad in Victorian Style," *Penelitian-Pendidikan* 469, no. 1 (January 1, 2013), http://ejournal.upi.edu/index.php/fesyen/article/download/9844/6092.

[9] Widatun Nafila and Mein Kharnolis, "PENGARUH PELETAKAN POLA TERHADAP HASIL JADI BLUS CIRCULAR DRAPE MENGGUNAKAN KAIN LYCRA METODE PATTERN MAGIC STRETCH FABRIC," *E-Journal* 3 (August 2014): 70–76, https://media.neliti.com/media/publications/248658-pengaruh-peletakan-pola-terhadap-hasil-j-df1705ae.pdf.

contemporary fashion landscape, while also contributing to practice-based fashion design studies.

METHOD

This study uses the Research and Development (R&D) method with a practice-based research approach to produce a useful and accountable product innovation.[10] The procedure used in this study adopted Robert Maribe Branch's ADDIE development model, which consists of five stages: analysis, design, development, implementation, and evaluation, as illustrated in Figure 1.[11]
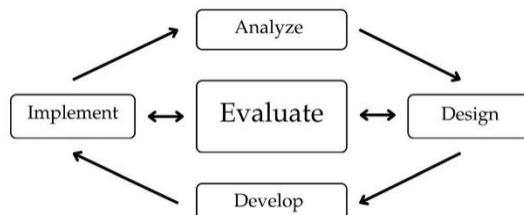

Figure 1. ADDIE Model Development Procedure (Source: Researcher's compilation, 2026)

The data collection process was carried out through a feasibility test to obtain information about product feasibility through six assessment indicators: design, size, aesthetics, sewing technique, clothing performance, and uniqueness. These indicators were then used as a starting point to compile 30 items of instruments in the form of statements. The assessment involved three fashion experts using a scale of 1–5. The research data was then analyzed descriptively and quantitatively, where the feasibility percentage was calculated and classified based on the product feasibility level criteria table according to Arikunto in a study by Ernawati & Sukardiyono in Table 1.[12]

Table 1. Product Feasibility Assessment Criteria

No	Score in percent (%)	Criteria
1	< 21%	Highly Unfeasible
2	21% - 40%	Unfeasible
3	41% - 60%	Sufficiently Feasible
4	61% - 80%	Feasible
5	81% - 100%	Highly Feasible

Source: Uji Kelayakan Media Pembelajaran Interaktif Pada Mata Pelajaran Administrasi server (2017)

The research was conducted over approximately four months, comprising a one-month design phase and a three-month production phase. The research was conducted in an integrated manner at

[10]   R. Narulita, I. Jaya, and M. A. Taboer, "Pengembangan media puzzle berseri untuk membantumeningkatkan kemampuan menggosok gigi pada anak autis Kelas dasar," *J. Pendidik.Kebutuhan Khusus*, vol. 5, no. 1, pp. 24–35, 2021, doi: 10.24036/jpkk.v5i1.565.

[11]   Fitria Hidayat and Muhamad Nizar, "MODEL ADDIE (ANALYSIS, DESIGN, DEVELOPMENT, IMPLEMENTATION AND EVALUATION) DALAM PEMBELAJARAN PENDIDIKAN AGAMA ISLAM," *Jurnal Inovasi Pendidikan Agama Islam* 1, no. 1 (December 2021): 28–37.

[12]   Iis Ernawati, "UJI KELAYAKAN MEDIA PEMBELAJARAN INTERAKTIF PADA MATA PELAJARAN ADMINISTRASI SERVER," *Elinvo (Electronics Informatics and Vocational Education)* 2, no. 2 (December 11, 2017): 204–10, https://doi.org/10.21831/elinvo.v2i2.17315.

the Wicaksono Aji Boutique as the internship location for field studies, the university sewing laboratory for technical testing, and a private studio as the main construction center.

RESULTS AND DISCUSSION

Analysis: Exploration the Concept of "Tirta Ardana"

This study identifies a significant gap between the restrictive construction of Victorian-era bustiers and contemporary aesthetic demands for flexibility. Through an in-depth literature study on 18th-century pattern anatomy, it was found that the rigidity of traditional clothing often hinders the wearer's mobility.[13] As shown in Figure 2, the pattern construction of the early Victorian period still focused heavily on emphasizing the upper torso to create the illusion of a slim waist.
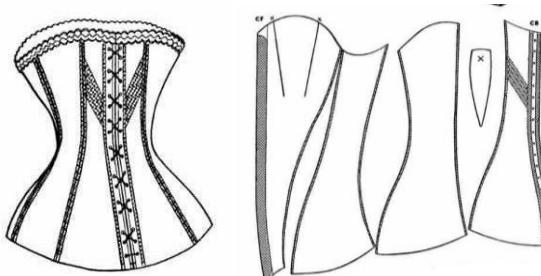

Figure 2. 1844 Bustier Pattern (Source: The Workwoman's Guide Book, 1838)

Entering the late Victorian era, as seen in Figure 3, the complexity of the pattern actually added to the weight of the material that had to be worn, thereby limiting the natural movement of the body's anatomy.
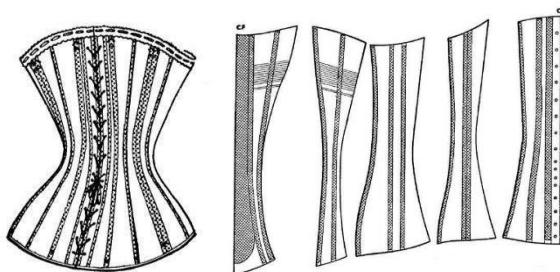

Figure 3. 1880 Bustier Pattern (Source: The Workwoman's Guide Book, 1838)

To support the weight of the massive fabric, a mechanical support known as a crinoline was used. The crinoline structure resembled a cage composed of bamboo circles, rattan, and wire springs that widened towards the bottom.[14] Although visually impressive, the use of this structure in the past caused various functional problems. The wide and rigid frame made it difficult for the wearer to move, sit, or even walk through a door.[15] Unlike the historical approach of separating the corset and the support frame, the innovation in the "Tirta Ardana" dress lies in the integration of the crinoline structure directly into the bustier construction. This integration creates a more efficient garment, eliminating the need for layered padding that adds extra weight for the wearer. The use of flexible yet

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[13] Afra Augesti, "3 Fakta Gaun Mewah Era Victoria Yang Tewaskan 3.000 Wanita," *liputan6.com*, February 7, 2018, https://www.liputan6.com/global/read/3265686/3-fakta-gaun-mewah-era-victoria-yang-tewaskan-3000-wanita?page=4.

[14] Bidayatul Maghfiroh, "LAPORAN AKHIR," FlipHTML5, June 17, 2021, https://fliphtml5.com/wxggh/kxtv/LAPORAN_AKHIR_Bidayatul_Maghfiroh_201900701 6-dikonversi-dikompresi/.

[15] "Panniers, Crinoline, Dan Bustle," August 8, 2014, https://fitinline.com/article/read/panniers-crinoline-dan-bustle/.

strong "Balen Jahit" material was chosen to replace rigid materials such as wire or rattan, allowing for a wide hip volume without adding excessive weight.

Design: Visualization of "Tirta Ardana"

This development research resulted in a fashion collection titled "Tirta Ardana." Etymologically, "Tirta" represents water as the source of life, while 'Ardana' means beauty or glory. The "Tirta Ardana" design is realized in an A-line silhouette consisting of three items: a bustier, skirt, and dress train. The bustier is modernized through the application of off-shoulder sleeves on duchess satin bridal material, which was chosen as the main material due to its ability to maintain its shape. The bottom part of the garment uses a modern batik span skirt, which serves as an anchor representing Indonesian cultural identity within the framework of current trends.

Figure 4. Researcher Collectioni (2026)

To reinforce the representation of "waves," this design features a skirt dominated by ruffle techniques using plissé tulle. This application not only serves as a decorative element, but also creates a 3D dimension that visualizes waves when the wearer moves.

Development: 8-Panel Pattern Construction Techniques

The bustier pattern in the "Tirta Ardana" piece was developed by combining construction methods and draping techniques. The construction pattern was used as a method to map body measurements into a 2D representation, while the draping technique was applied to visualize the volume and design details in 3D on the wearer.
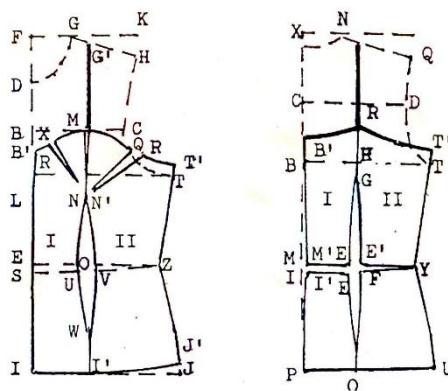

Figure 5. 4-Panel Bustier Pattern (Source: Buku Penuntun Membuat Pola Tingkat Dasar, 2008)

The construction of the "Tirta Ardana" pattern began with the creation of a basic pattern using the Leeuw van Rees technique for size XS.[16] The researcher adapted the standard 4-panel bustier

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[16]   Soekarno, *BUKU PENUNTUN MEMBUAT POLA BUSANA TINGKAT DASAR,* vol. 45–47 (PT Gramedia Pustaka Utama, 2008).

pattern to modify the Leeuw van Rees basic pattern based on the Soekarno method.[17] A crucial stage in this research was pattern modification by transforming the 4-panel structure into an 8-panel construction through manipulation of the dart points and hip width. Before finalizing the pattern, the researcher performed a draping process on the user to validate the accuracy of the three-dimensional measurements. Details of the final pattern modifications are presented in Tables 2 and 3.

Table 2. Front Pattern Modification Procedure

Component	Modification Procedure	Construction Purpose
Length Proportion	Extend points I and J' 4 cm downward	Achieve a garment proportion that covers the hip line.
Break Panel I	Divide panels I and I' through auxiliary points at intervals of ½ of the total width of sections E-O, B'-M, and I-I'.	Increase body precision in size XS.
Chest Accuracy	Add 1½ cm to the seam allowance of I and I'.	
Chest Volume	Develop point M' by 1 cm.	Emphasize the chest area.
Break Panel II	Pattern II is constructed through auxiliary points V-Z with a size of ½ the width of E-O, while pattern II' is obtained from the remaining proportion of pattern II.	Increase body precision in size XS.
Move Darts	Darts at points X and Q is moved to the pattern break line with a similar width	
Chest Accuracy	Add ½ cm cup at Pattern II and II' joints, then develop point Z by 2 cm	
Hip Silhouette	Develop point J' on Pattern 2' by 5 cm.	Creating a large hip volume.

Source: Processed by Author (2026)

Table 3. Back Pattern Modification Procedure

Component	Modification Procedure	Construction Purpose
Length Proportion	Extending points P and U 4 cm downward.	Aligning the front and back length proportions.
Break Panel I	Create auxiliary points at ½ M-E, ½ B'-H', and ½ P-O to divide the panel into I and I'	Eliminate wrinkles and ensure the pattern follows the back curve.
Back Accuracy	Add a 1½ cm seam allowance at the I and I' joints	
Break Panel II	The II pattern is constructed using the E'-Y auxiliary point with a size of ½ the width of M-E, while the II' pattern is obtained from the remaining proportions of the II pattern.	
Back Accuracy	Add a 1½ cm seam allowance at the Pattern II and II' seams. Then develop point Y by 3 cm	
Hip Silhouette	Develop point U on the back of Pattern II' by 5 cm	Balance the front hip volume.

Source: Processed by Author (2026)

Through the division of these eight panels, researchers can reinforce the structure at each panel joint. The pattern visualization is presented in Figure 6.

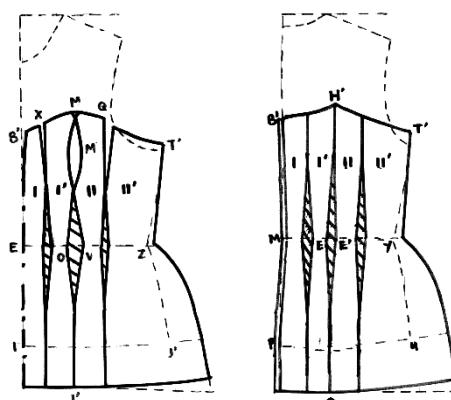[17] Soekarno, *BUKU PENUNTUN MEMBUAT POLA BUSANA TINGKAT DASAR,* vol. 145–146 (PT Gramedia Pustaka Utama, 2008).

Figure 6. Results of the 8-Panel Bustier Pattern (Source: Researcher's Collection, 2026)

Product Creation: Production Process of the "Tirta Ardana"

The production process of "Tirta Ardana" is carried out through an iterative approach, beginning with the creation of prototypes using calico fabric. This stage aims to test the functionality of the design through a fitting process and evaluation with experts to validate the construction before it is applied to the main material.

Figures 7 and 8. 3-layer sewing technique and bustier silhouette (Source: Personal Documentation)

The process continues with the sewing of the original material, prioritizing the component with the highest level of structural complexity, namely the bustier. In order to achieve a wide and stable hip structure without using an external frame, a reinforcement technique is applied using three layers of sewing balen. The application of this material is strategically focused on panels that have been developed in the previous pattern breaking process. Technically, the sewing balen is cut according to the lower hip pattern size and sewn to the main material using the interfacing technique as shown in Figure 7. Interfacing is an inner layer to support, strengthen, and maintain the shape of the garment.[18]

After the bustier structure achieves the desired shape integrity as shown in Figure 8, the production process continues with the assembly of the span skirt and the attachment of the dress tail as a refinement of "Tirta Ardana" and focuses on the hand-crafted process, including the attachment of sequins, brocade application, and detailed lace.

Validation and Evaluation of the Work "Tirta Ardana"

The data obtained in this study are the results of product feasibility tests involving three fashion experts. The evaluation data are quantitative data in the form of scores to determine the level of product feasibility. The numerical data are processed using Sudijono's Percentage Formula as shown in Equation (1).

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[18]   Vischa Cinthia Valentina, "Pengaruh Jenis Interfacing Terhadap Hasil Jadi Lengan Belimbing (Starfruit Sleeve) Pada Busana Pesta Anak Menggunakan Bahan Taffeta," *E-Journal* 5, no. 2 (May 20, 2016): 250142, https://ejournal.unesa.ac.id/index.php/jurnal-tata-busana/article/view/15217.

$$N = \frac{Obtained\ Score}{Maximum\ Score} \times 100\% \qquad (1)$$

The average score of the three panelists was calculated using Equation (2).

$$Average = \frac{Panelist\ 1 + Panelist\ 2 + Panelist\ 3}{3} \qquad (2)$$

The data confirms that the 'Tirta Ardana' design received positive responses in almost all aspects of the assessment. To analyze the results in more detail, here is a detailed analysis for each assessment indicator.

Design Indicator Feasibility Data

In design, unity is needed to create a compositional structure and a harmonious blend between one design element and another.[19] The evaluation of design indicators covers five main aspects: color harmony, design line effectiveness, silhouette suitability to the concept, proportions between parts, and clarity of the garment's focal point. The results of the three panelists' assessments are presented in the following table:

Table 4. Feasibility Data on Design Indicators

Panelist	Percentage
Panelist 1	92,00%
Panelist 2	88,00%
Panelist 3	100,00%
Average	**93,33%**
Criteria	**Very Feasible**

Source: Data by Researchers (2026)

Based on Table 4, the design indicator obtained an average score of 93.33% with a Very Good category. This achievement represents the success of designers in presenting creative ideas in the form of clothing that has a very good balance of lines, shapes, and details. As stated by Widjiningsih, balance in design is achieved when lines, shapes, and colors work together to provide a sense of satisfaction.[20]

The high score on this indicator proves that every design element, from the development of the 8-panel silhouette to the placement of accents, has been fully integrated and is able to convey a strong aesthetic message to the audience. This data confirms that the "Tirta Ardana" garment has a precise design quality, where every design element supports the identity of the work as an innovative garment with a strong character.

Size Indicator Feasibility Data

The success of the construction of the "Tirta Ardana" garment is measured by the level of precision when the garment is worn (fitting). In line with Erwin's standard criteria for garment fitting, a garment is said to have perfect fit if it meets five main criteria: grain, line, set, balance, and ease, which ensure that the garment falls neatly without pulling or wrinkling.[21] The score data obtained from

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[19] Tegar Teguh Santoso and Gamelab, "Penting! Prinsip Dan Elemen Dasar Desain Yang Harus Diketahui Desainer," *Gamelab.id* (blog), December 23, 2020, https://www.gamelab.id/news/152-penting-prinsip-dan-elemen-dasar-desain-yang-harus-diketahui-desainer.

[20] psychologymania.com, "Prinsip-prinsip Desain," *PSYCHOLOGYMANIA*, September 23, 2018, https://www.psychologymania.com/2013/06/prinsip-prinsip-desain.html.

[21] Erwin and Mabel Deane, "Clothing for Moderns," Internet Archive, 1949, https://archive.org/details/clothingformoder00erwi/page/30/mode/2up.

the expert validation results are presented in the following table:

Table 5. Feasibility Data on Size Indicators

Panelist	Percentage
Panelist 1	84,00%
Panelist 2	76,00%
Panelist 3	84,00%
Average	**81,33%**
Criteria	**Very Feasible**

Source: Data by Researchers (2026)

With an average score of 81.33%, this garment has proven to have a high level of precision in the Very Good category. This achievement confirms that the pattern engineering applied is able to accurately cover the chest, waist, and hip areas of the wearer in accordance with the anatomy of the user's body.

Although it is cumulatively in the Very Suitable category, there is a deviation in the assessment of one of the panelists (76.00%), which indicates the need for more attention. However, professionally, a score above 80% proves that the garment structure meets ergonomic standards. This confirms that the 8-panel pattern-breaking technique used is able to accurately follow the contours of the body without neglecting the desired aesthetic aspects of the silhouette.

Aesthetic Indicator Feasibility Data

Aesthetics is the science of beauty, which can be formed and felt.[22] The aesthetic aspect is evaluated to see the extent to which the "Tirta Ardana" garment is able to provide an impression of beauty that is in harmony with the values of craftsmanship. The experts' assessment of the aesthetic value of this garment is summarized in the following table:

Table 6. Feasibility Data on Aesthetic Indicators

Panelist	Percentage
Panelist 1	92,00%
Panelist 2	100,00%
Panelist 3	88,00%
Average	**93,33%**
Criteria	**Very Feasible**

Source: Data by Researchers (2026)

Based on Table 6, the average score of 93.33% proves that this garment has a Very Good aesthetic quality. Experts assessed that there is a harmonious unity between color, shape, and material. A perfect score (100.00%) from one of the panelists shows that this garment has a very strong visual impact. This success is driven by the application of mature design principles, where decorative elements such as ruffles and sequins are not just ornaments, but a unified whole that reinforces the dynamic shape of the garment. Experts assess that the aesthetics of this garment are not superficial, but rather an achievement that is in line with the view that aesthetics are not only determined by visual appearance, but also by the meaning, function, and innovation offered by the design.[23]

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[22] Kontributor proyek Wikimedia, "Estetika," Wikipedia Bahasa Indonesia, Ensiklopedia Bebas, December 31, 2025, https://id.wikipedia.org/wiki/Estetika.

[23] Dr. Wesnina, M.Sn and Rahayu Purnama, S.Pd., M.Pd., Ph.D, *ESTETIKA PADA*

Sewing Techniques Indicator Feasibility Data

Sewing is a craft activity of tying, attaching, or connecting something using a needle and thread.[24] The physical quality of the "Tirta Ardana" garment greatly depends on the precision of the sewing technique, especially in joining the 8 bustier panels, which have a high degree of curvature. This indicator evaluates aspects of strength, neatness, and finishing techniques. The following is a summary of the experts' assessment of the quality of the garment's workmanship:

Table 7. Feasibility Data on Sewing Technique Indicators

Panelist	Percentage
Panelist 1	80,00%
Panelist 2	72,00%
Panelist 3	80,00%
Average	**77,33%**
Criteria	**Feasible**

Source: Data by Researchers (2026)

Based on Table X, the sewing technique indicator received an average score of 77.33%, placing it in the Acceptable category. The sewing technique aspect showed a lower score, indicating constraints in the physical process of garment production. A score of 72.00% from one of the panelists specifically highlighted the need for improvement in sewing precision.

This score reflects the challenges in handling thick yet slippery fabric, resulting in some panel seams and decorative details that did not meet the "Highly Acceptable" standard. This assessment is in line with the findings on the size indicator regarding wrinkles, which technically stem from uneven stitching or the use of inappropriate basting techniques for the complex 8-panel pattern structure. Nevertheless, the achievement of the "Acceptable" criteria proves that the "Tirta Ardana" garment has met the basic construction standards for clothing, but requires optimization in terms of sewing techniques to achieve perfection in haute couture quality.

Fashion Performance Indicator Feasibility Data

Clothing performance indicators evaluate the functionality and behavior of clothing when worn by users in real-world contexts. Performance can be linked to performance or appearance, which can show the extent to which individuals successfully interpret an achievement relevant to a specific goal.[25] This assessment includes shape stability, ease of use, and the impression of character produced. The assessment data from the experts is presented in the following table:

Table 8. Feasibility Data on Fashion Performance Indicators

Panelist	Percentage
Panelist 1	84,00%
Panelist 2	80,00%

DESAIN BUSANA, 1st ed. (EUREKA MEDIA AKSARA, 2025), https://repository.penerbiteureka.com/media/publications/595644-estetika-pada-desain-busana-4a87501d.pdf#:~:text=Dalam%20dunia%20fashion%2C%20estetika%20tidak,1.

[24] Telkom University, "6 Teknik Dasar Jahit Tusuk Yang Harus Dikuasai Pemula," *Telkom University*, October 10, 2024, https://bcaf.telkomuniversity.ac.id/6-teknik-dasar-jahit-tusuk-yang-harus-dikuasai-pemula/.

[25] Chairunnisa Nur Insani, "ANALISIS TURNOVER TIM BOLA BASKET PUTRI DALAM KOMPETISI DEVELOPMENT BASKETBALL LEAGUE (DBL) West Java Series 2019" (Universitas Pendidikan Indonesia, 2020).

Panelist 3	84,00%
Average	**82,67%**
Criteria	**Very Feasible**

Source: Data by Researchers (2026)

Based on Table X, the garment performance indicator received an average score of 82.67%, which is classified as Very Good. Quantitatively, this result confirms that the "Tirta Ardana" garment is able to maintain its integrity when worn for walking or posing.

This achievement in the Very Good category proves that even though there were minor issues with the sewing technique, it didn't significantly reduce the overall performance of the garment. This success was supported by the choice of duchess satin material, which has strong body characteristics, enabling it to support the modified Victorian silhouette with stability. This data validates that "Tirta Ardana" is a functional garment product that meets basic comfort standards and has good shape retention when presented.

Uniqueness Indicator Feasibility Data

The final indicator evaluates the novelty and originality that distinguish Tirta Ardana fashion. A fashion professional must be able to respond to demands related to novelty and the complexity of issues related to the fashion product process in order to be accepted.[26] The results of expert assessments of the uniqueness of the fashion are presented in the following table:

Table 9. Feasibility Data on Uniqueness Indicators

Panelist	**Percentage**
Panelist 1	92,00%
Panelist 2	80,00%
Panelist 3	88,00%
Average	**86,67%**
Criteria	**Very Feasible**

Source: Data by Researchers (2026)

Based on Table 6, an average score of 86.67% was obtained, placing this indicator in the Very Good category. This high score is based on the designer's success in presenting novelty through the engineering of an 8-panel pattern structure that is rarely found in conventional clothing. The innovation in the dramatic yet harmonious hip shape provides a strong visual impression that is different from common works.

The high score on this indicator proves that the combination of historical silhouettes with modern decorations provides significant added value. This score validates that the "Tirta Ardana" garment meets the criteria as a highly competitive work, where its novelty is a distinguishing factor that gives the wearer an iconic impression.

To obtain a comprehensive assessment, the Total Cumulative Average Score was calculated using the following formula:

$$\chi = \frac{\Sigma I}{n} \qquad (3)$$

X: Cumulative Average Score. ΣI: Total

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[26] Admin, "Model Pembelajaran Decons Mempersiapkan Pembelajar Untuk Meningkatkan Kualitas, Kreativitas Dan Inovasi Dalam Perancangan Busana," rakyatsumbar.id, March 14, 2021, https://rakyatsumbar.id/model-pembelajaran-decons-mempersiapkan-pembelajar-untuk-meningkatkan-kualitas-kreativitas-dan-inovasi-dalam-perancangan-busana/.

sum of scores from the 6 indicators.   n: Number of indicators

Based on these calculations, an average score of 85.78% was obtained, placing the "Tirta Ardana" outfit in the Very Good category. Validation of this quantitative score is visually represented in the documentation presented in Figure 8. This documentation displays the physical appearance of the clothing from various angles to show how the experts' objective assessments are applied in the final product.

Figure 9. Documentation of the "Tirta Ardana" (Source: Personal Documentation)

CONCLUSION

The research on developing a bustier pattern for the "Tirta Ardana" garment successfully proved that integrating an 8-panel construction with Victorian-era pattern engineering can produce a garment with a sturdy structure and precision in size XS. Technical findings confirm that the use of three-layer sewing balen in the developed pattern is a determining factor in achieving a voluminous hip silhouette without the need for massive external support structures. Quantitatively, validation by experts reinforces these findings with an average cumulative score of 85.78%, classifying this work as Highly Feasible.

Although conceptually and aesthetically superior, this study notes several evaluative points related to the quality of physical workmanship. Optimization of sewing techniques is needed to minimize fabric tension, as well as the need for increased precision in the placement of ornamental details. In addition, the selection of decorative materials such as sequins must prioritize elegance and light weight in order to maintain the stability of the fabric.

Based on these results, this study recommends that future developments focus on exploring more varied materials and construction techniques in order to transform historical elements into contemporary fashion more efficiently. This includes simplifying patterns without reducing classical aesthetics, thereby producing clothing that not only has high distinctive value, but also more optimal production efficiency in the modern fashion industry. Overall, "Tirta Ardana" has met professional standards as an innovative work that harmoniously synergizes historical aesthetics with contemporary pattern techniques.

REFERENCES

Admin. "Model Pembelajaran Decons Mempersiapkan Pembelajar untuk Meningkatkan Kualitas, Kreativitas dan Inovasi dalam Perancangan Busana." rakyatsumbar.id, March 14, 2021. https://rakyatsumbar.id/model-pembelajaran-decons-mempersiapkan-pembelajar-untuk-meningkatkan-kualitas-kreativitas-dan-inovasi-dalam-perancangan-busana/.

Apriyani, Linda, Ronggo Warsito, and Isna Rahmawati. "Pengembangan LKPD Discovery Learning Untuk Menanamkan Pendidikan Karakter Siswa Kelas V Sekecamatan Jatinom Tahun Pelajaran 2023/2024." *Dharma Acariya Nusantara Jurnal Pendidikan Bahasa Dan Budaya* 2, no. 2 (August 10, 2024): 167–77. https://doi.org/10.47861/jdan.v2i2.1231.

Ardtech. "Busana Kontemporer: Kreativitas Fashion Di Era Modern." Desain & Bisnis Produk Fashion, October 3, 2025. https://share.google/ExHWelWuJJKFm6IhV.

Augesti, Afra. "3 Fakta Gaun Mewah Era Victoria Yang Tewaskan 3.000 Wanita." *liputan6.com*, February 7, 2018. https://www.liputan6.com/global/read/3265686/3-fakta-gaun-mewah-era-victoria-yang-tewaskan-3000-wanita?page=4.

Chairunnisa Nur Insani. "ANALISIS TURNOVER TIM BOLA BASKET PUTRI DALAM KOMPETISI DEVELOPMENT BASKETBALL LEAGUE (DBL) West Java Series 2019." Universitas Pendidikan Indonesia, 2020.

Internet Archive. "Clothing for Moderns : Erwin, Mabel Deane : Free Download, Borrow, and Streaming : Internet Archive," 1949. https://archive.org/details/clothingformoder00erwi.

Cumming, Valerie, C. Willett Cunnington, and Phillis Emily Cunnington. "The Dictionary of Fashion History." *Choice Reviews Online* 48, no. 09 (May 1, 2011): 48–4851. https://doi.org/10.5860/choice.48-4851.

Dr. Wesnina, M.Sn, and Rahayu Purnama, S.Pd., M.Pd., Ph.D. *ESTETIKA PADA DESAIN BUSANA*. 1st ed. EUREKA MEDIA AKSARA, 2025. https://repository.penerbiteureka.com/media/publications/595644-estetika-pada-desain-busana-4a87501d.pdf#:~:text=Dalam%20dunia%20fashion%2C%20estetika%20tidak,1.

Enrico. "Perancangan Produk Fashion Kontemporer Berdasarkan Budaya Peranakan Dengan Menerapkan Motif Batik Pesisir." *JURNAL RUPA* 8, no. 1 (August 31, 2023). https://doi.org/10.25124/rupa.v8i1.5832.

Ernawati, Iis. "UJI KELAYAKAN MEDIA PEMBELAJARAN INTERAKTIF PADA MATA PELAJARAN ADMINISTRASI SERVER." *Elinvo (Electronics Informatics and Vocational Education)* 2, no. 2 (December 11, 2017): 204–10. https://doi.org/10.21831/elinvo.v2i2.17315.

Hidayat, Fitria, and Muhamad Nizar. "MODEL ADDIE (ANALYSIS, DESIGN, DEVELOPMENT, IMPLEMENTATION AND EVALUATION) DALAM PEMBELAJARAN PENDIDIKAN AGAMA ISLAM." *Jurnal Inovasi Pendidikan Agama Islam* 1, no. 1 (December 2021): 28–37.

Kontributor proyek Wikimedia. "Estetika." Wikipedia Bahasa Indonesia, Ensiklopedia Bebas, December 31, 2025. https://id.wikipedia.org/wiki/Estetika.

Maghfiroh, Bidayatul. "LAPORAN AKHIR_Bidayatul Maghfiroh_2019007016-dikonversi-dikompresi." FlipHTML5, June 17, 2021. https://fliphtml5.com/wxggh/kxtv/LAPORAN_AKHIR_Bidayatul_Maghfiroh_2019007016.

Nafila, Widatun, and Mein Kharnolis. "PENGARUH PELETAKAN POLA TERHADAP HASIL JADI BLUS CIRCULAR DRAPE MENGGUNAKAN KAIN LYCRA METODE PATTERN MAGIC STRETCH FABRIC." *E-Journal* 3 (August 2014): 70–76. https://media.neliti.com/media/publications/248658-pengaruh-peletakan-pola-terhadap-hasil-j-df1705ae.pdf.

Narulita, Reita, Indra Jaya, and Mohammad Arif Taboer. "Pengembangan Media Puzzle Berseri untuk Membantu Meningkatkan Kemampuan Menggosok Gigi pada Anak Autis Kelas Dasar." *Jurnal Pendidikan Kebutuhan Khusus* 5, no. 1 (April 7, 2021): 24–35. https://doi.org/10.24036/jpkk.v5i1.565.

Nusaibah, Aisyah, and Winwin Wiana. "MODIFIKASI GAYA BUSANA CLEOPATRA PADA BUSANA PESTA MODEL STRAPLESS." *JURNAL TANRA DESAIN KOMUNIKASI VISUAL* 11, no. 2 (August 2024): 155–62.

"Panniers, Crinoline, dan Bustle," August 8, 2014. https://fitinline.com/article/read/panniers-crinoline-dan-bustle/.

psychologymania.com. "Prinsip-prinsip Desain." *PSYCHOLOGYMANIA*, September 23, 2018.

https://www.psychologymania.com/2013/06/prinsip-prinsip-desain.html.

"PUSAT FASHION KONTEMPORER DI YOGYAKARTA - E-Journal Universitas Atma Jaya Yogyakarta," n.d. https://e-journal.uajy.ac.id/1651/.

Putri, Widi Triani, and Inko Sakti Dewanto. "Peran Artbook Dalam Penyebaran Trend Fashion Victorian Era (Studi Kasus: '1950's Fashion')." *Jurnal Desain Komunikasi Visual.* 2, no. 1 (February 27, 2025): 12. https://doi.org/10.47134/dkv.v2i1.3784.

Risqi, None Chalita Oktavianita, and None Arina Haq. "Pembuatan Busana Pesta Malam Dengan Sumber Ide Renaissance Italia Menggunakan Penerapan Smock Pada Corset Dan Hiasan Payet." *Garina.* 16, no. 1 (June 12, 2024): 120–33. https://doi.org/10.69697/garina.v16i1.109.

Salsabila Sephiani, and Dini Yanuarmi. "BUSANA KONTEMPORER DENGAN TEKNIK SMOCK JEPANG." *VisART Jurnal Seni Rupa & Desain* 3, no. 1 (June 2025): 207–14. https://doi.org/10.61930/visart.v3i1.1197.

Santoso, Tegar Teguh, and Gamelab. "Penting! Prinsip dan Elemen Dasar Desain Yang Harus Diketahui Desainer." *Gamelab.id* (blog), December 23, 2020. https://www.gamelab.id/news/152-penting-prinsip-dan-elemen-dasar-desain-yang-harus-diketahui-desainer.

Soekarno. *BUKU PENUNTUN MEMBUAT POLA BUSANA TINGKAT DASAR*. Vol. 45–47. PT Gramedia Pustaka Utama, 2008.

Surya, Melisa Chandra, and P Pipin Tresna. "Sekar Jagad in Victorian Style." *Penelitian-Pendidikan* 469, no. 1 (January 1, 2013). http://ejournal.upi.edu/index.php/fesyen/article/download/9844/6092.

———. "Sekar Jagad in Victorian Style." *Penelitian-Pendidikan* 469, no. 1 (January 1, 2013). http://ejournal.upi.edu/index.php/fesyen/article/download/9844/6092.

Telkom University. "6 Teknik Dasar jahit tusuk yang Harus Dikuasai Pemula." *Telkom University*, October 10, 2024. https://bcaf.telkomuniversity.ac.id/6-teknik-dasar-jahit-tusuk-yang-harus-dikuasai-pemula/.

"The workwoman's guide," 1837. https://library.si.edu/digital-library/book/workwomansguide00hale.

Valentina, Vischa Cinthia. "Pengaruh Jenis Interfacing Terhadap Hasil Jadi Lengan Belimbing (Starfruit Sleeve) Pada Busana Pesta Anak Menggunakan Bahan Taffeta." *E-Journal* 5, no. 2 (May 20, 2016): 250142. https://ejournal.unesa.ac.id/index.php/jurnal-tata-busana/article/view/15217.

W, Katiah Citra Ayu. "Pesona Draperi Pada Imperial Period Rome Style." *Penelitian-Pendidikan* 469, no. 1 (January 1, 2013). http://ejournal.upi.edu/index.php/fesyen/article/download/9849/6097.

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