

PRODUCT QUALITY OF UPCYCLE DENIM JACKET FASHION WITH SLASHING FABRIC MANIPULATION TECHNIQUE

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ABSTRACT

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Received:

7 September 2025.

Revised:

21 Oktober 2025

Accepted:

20 November 2025

This research aims to obtain a product assessment of the utilization of accumulated clothing, especially unused second hand denim jackets, in the process of making upcycled denim jackets. The approach used in this research is the descriptive quantitative method with a pre-experimental research design, in the form of a one shot case study. This research produced five ready-to-wear fashion products in the form of upcycled denim jackets decorated with fern motifs as the main theme, applied through the slashing fabric manipulation technique, and assessed using a rating scale. The research stages included the accumulation of second hand denim jackets, processing, and making upcycled denim jackets. Product assessment of upcycled second hand denim jackets with slashing technique fabric manipulation is based on the theory of Product Quality according to David Garvin in Fandy Tjiptono (2016:136), which includes features, reliability, suitability, and aesthetics. The assessment results show that the overall product quality is in the very good category. Products with a very high category were obtained by design 1 obtained a very good score. meanwhile, designs 4 and 5 obtained good scores.

Keywords: Second hand denim jacket, upcycle, fabric manipulation.

1. INTRODUCTION

The change of time has brought the global community towards a lifestyle that is practical and modern, where everything can be done quickly and tends to be instant. In the world of fashion, the emergence of the term fast fashion clothing has become a global phenomenon which is also influenced by the media. The high demand for massive clothing production indirectly impacts the production chain and encourages a shift in people's lifestyles toward being more consumeristic. Continuous consumeristic habits can develop into a lifestyle that always prioritizes self-image and following trends, without considering the negative impact on the environment, (Aulia et al., 2020). The active role of social media as a platform to present oneself to look trendy, public figures who always show up-to-date fashion, and increasingly diverse fashion styles have encouraged a shift in people's lifestyles to be more consumeristic. Continuous consumeristic habits can develop into a lifestyle that always prioritizes self-image and following trends, without considering the negative impact on the environment, (Aulia et al., 2020). Lifestyle does not only reflect individual personality, but also a broader influence, namely social class. It is undeniable that the habit of Indonesian

society to always be up-to-date in following fashion retail causes a rapidly accelerating globalization flow, leading to many fashion trends continually emerging and diversifying in a very short time, (Sukma et al., 2024). In the context of modernity, phenomena such as rapid change, adaptation of current behavior, decline in traditional values, and shifting fashion trends are often referred to by academics as "contagion and imitation". The term "Generation Z" is often used as a continuation of the millennial era. This generation is known as a generation that is always up-to-date with technology. According to (Sinaga & Simbolon, 2023), Generation Z has broad access to information in the digital era and social media. This influences their view of fashion through the reception and interpretation of the constantly changing fashion wheel. Generation Z is also known for its critical nature towards fashion, showing commitment to environmental issues and social responsibility.

Upcycling not only reduces waste but also adds value to unused clothing. One concept that aims to extend the cycle and durability of clothing is through the principle of sustainability. According to Berfield (2015) as quoted in (Kutsenkova, 2017), Sustainable has become a characteristic of a movement that focuses on extending the cycle and lifespan of clothing products. This concept was first introduced by a German engineer, Reiner Pilz in 1994, referenced in (Lehtinen, 2021), when Reiner Pilz was interviewed by the monthly publication *Salvo*, saying that recycling or upcycling is not as easy as collecting old clothes, sewing them together, and reselling them. This concept demands a more creative and strategic approach in providing new value to unused products.

This research applies the upcycle concept to ready-to-wear clothing. Currently, many innovations are emerging that make ready-to-wear clothing a continuous pursuit. Every designer needs high creativity in clothing to become a trendsetter among fashion enthusiasts. According to Wolf (1996), Fabric manipulation is a technique of processing fabric by decorating, damaging, or changing the texture of the material, including utilizing fabric scraps as decoration and making the material newer. One technique that caught the researcher's attention is Slashing, which is known for its uniqueness in the effect of frayed edges or fabric fibers that look fuzzy and textured. The fuzzy frayed effect from the layers of fabric is the art that characterizes the slashing technique, quoted by (Natasya & Widiastuti, 2022). Through this research, the application of fabric slashing on upcycled denim jackets is expected to increase the appeal of upcycled products among the wider community of Generation Z.

2. METHOD

This research aims to obtain product assessment results for ready-to-wear second hand denim jackets, with motifs applied using the slashing technique inspired by the life cycle pattern of fern plants, and creating artistic design elements assessed by 5 panelists based on the theory of Product Quality principles, according to David Garvin in Fandy Tjiptono (2016:136) with four aspects covering features, reliability, conformance to specification, and aesthetics. This research uses an experiment research method, which is a quantitative pre-experimental design. The experimental method is intended to examine cause-and-effect relationships aiming to assess an action/treatment. The research design used is the One-shot case study, where the researcher only provides one treatment which is expected to already have an influence, followed by a post-treatment test (pro-test).

Information:

X = given treatment (Independent Variable)

O = Observation (Dependent Variable)

X = Treatment	O = Observation
Second hand denim jacket (Upcycle)	Product assessment based on the theory of adding decoration and fabric manipulation ,Product Quality according to David Garvin slashing technique, in Vincent Garperz, quoted by ,Fandy Tjiptono (2016:136) in four ,aspects, namely Features, Reliability, Conformance to specification ,and Aesthetics.

Table 1 Treatment and Product Quality Observation

This research will focus on the panelists' assessment of the ready-to-wear Upcycled Denim Jacket product with Slashing technique decoration, thus using the rating scale measurement. The rating scale used is more flexible, will obtain raw data in the form of numbers, and in this research will be assessed by four alternative answers obtained. A very good answer will be given a score of 4, a fairly good answer will be given a score of 3, a less good answer will be given a score of 2, and a very not good answer will be given a score of 1, (Sugiyono, 2020). The type of questionnaire used in this research is a closed questionnaire. In this questionnaire, there are statements for which alternative answers have been prepared, and there are also alternative choices for respondents to give or express their opinions outside the available answers but still within the determined aspects.

3. RESULTS AND DISCUSSION

The results of making ready-to-wear upcycled second hand denim jacket products with the slashing fabric manipulation technique were realized into 5 (five) products. This research was conducted with the aim of finding out the assessment of upcycled second hand denim jackets with the slashing technique. Denim jackets were obtained from a pile of unused clothing that was still suitable to be used again. The second hand denim jackets used had minor damage such as faded color, thin or fragile fabric texture, and a monotonous or basic design model. This denim jacket is inspired by the life cycle of the fern plant, so the product theme is named "Polypodiales," which comes from the Latin term. In this research, the style used is Arty Casual, which suits the characteristics of ready-to-wear clothing that can be freely created yet remains stylish. The target market for this upcycled denim jacket product is women aged 17 to 35 years with an upper-middle social class who like the arty casual style.

Upcycled Second Hand Denim Jacket With Slashing Fabric Manipulation Technique Accumulation of second hand denim jackets Reuse Reduce Recycle upcycle Making Ready-to-Wear Clothing from denim jackets by applying the Slashing Fabric Manipulation concept Slashing Assessment of ready-to-wear upcycled products by 5 panelists Based on the dimensions of Product Quality, according to David Garvin, quoted by Fandy Tjiptono (2016:136) Features Reliability Conformance Aesthetics.

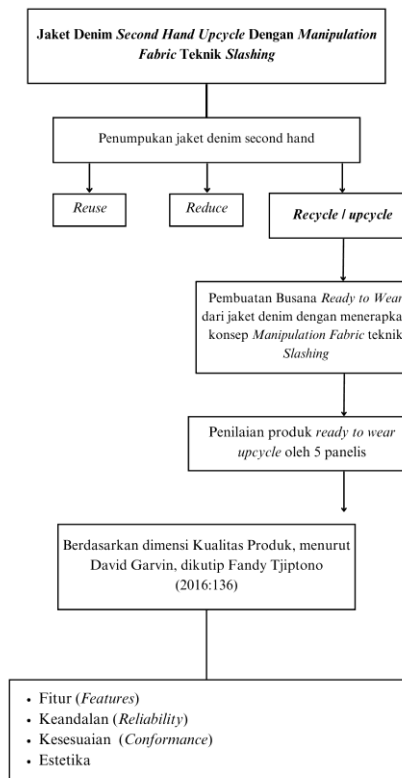


Figure 1 Framework

Source of Inspiration

This inspiration is applied to second hand denim jackets processed into upcycled products. The shape and growth process of the fern plant, from shoots to bloom, becomes a metaphor for the upcycling concept, which also focuses on adaptation and extending the material's life cycle. Just like the fern plant that continues to grow and adapt to its environment. This research focuses on the accumulation of clothing or fashion waste, particularly denim, chosen because the problem of fast fashion is worsening the environmental crisis. By using denim waste as the base material, this research contributes to reducing textile waste that has the potential to pollute the environment. The color selection for this product is based on a combination of dark blue and light blue, which aligns with the 2024-2025 "Fusion Symbiotic" trend forecast. This trend inspires the visualization of clothing ideas very freely, more boldly, and full of color. The arty casual style is strongly felt, with multi-styles mixing and matching

Style

In this research, the upcycled denim jacket assessment uses second hand denim jackets with the slashing fabric manipulation technique inspired by the life cycle of the fern plant in an arty casual style that refers to the 2024/2025 trend forecasting, namely Fusion-symbiotic, which means: this fashion style appears more modern, bold, and multi-stylish. The "multi-stylish" mindset promoted by this trend visualizes clothing ideas very freely, more boldly, and full of color. Various engineered arty casual styles are strongly felt, with multi-styles mixing and matching (Trend Forecasting, 2025). The conclusion is how second hand denim jackets that have minor damage such as faded color, fragile fabric fibers, and monotonous jacket designs can appear more arty, contemporary, and have a higher selling value.



Figure 2 Styleboard

Moodboard

This research focuses on the accumulation of clothing or fashion waste, particularly denim, chosen because the problem of fast fashion is worsening the environmental crisis. By using denim waste as the base material, this research contributes to reducing textile waste that has the potential to pollute the environment. The color selection for this product is based on a combination of dark blue and light blue, which aligns with the 2024-2025 "Fusion Symbiotic" trend forecast. This trend inspires the visualization of clothing ideas very freely, more boldly, and full of color. The arty casual style is strongly felt, with multi-styles mixing and matching



Figure 3 Moodboard

Product (Before After)



Figure 4 Product 1

In product 1, the upcycled denim jacket is equipped with slashing accents using the Multi Layering of fabrics technique with motifs and shapes inspired by the fern plant. This design uses a shirt collar, creating a harmony of two colors, dark blue and light blue, thus creating a color harmony from the 2024/2025 Cyberchic-Symbiotic trend forecast, aiming to cover up flaws such as color fading on the front and back. On the back, the decoration detail features slashing with two techniques, namely Multi Layering and Straight Grain Slashing, which present the fern plant's growth process and give an artistic as well as dynamic impression to the design



Figure 5 Product 2

Product 2, a denim jacket with a blazer collar that is given a slashing accent using the Multi Layering of fabrics technique. The motif and shape are inspired by the fern plant, with a combination of two colors, dark blue and light blue, thus creating a color harmony from the 2024/2025 Cyberchic-Symbiotic trend forecast. The addition of this accent is designed to cover up flaws in the form of tears due to the fabric texture being loose or thin. On the back sleeve, the slashing accent with the Multi Layering technique is applied to cover up damage in the form of small tears caused by weakened fabric fibers. The same technique is also applied to the collar and the back of the sleeves.



Figure 6 Product 3

Product 3, an upcycled denim jacket with a blazer collar on the front. The design is equipped with a princess seam dart and a button opening at the front. It combines two colors, dark blue and light blue, thus creating a color harmony from the 2024/2025 Cyberchic-Symbiotic trend forecast. The slashing decoration detail uses two techniques, namely Multi Layering and Straight Grain Slashing. The front and back of the princess dart are covered with the Straight Grain slashing technique, and the back of the shoulder blade is covered with the Multi Layering slashing technique, serving as a focal point and covering up flaws.



Figure 7 Product 4

Product 4, an upcycled denim jacket with a blazer collar and a button opening at the front. This design combines two colors, dark blue and light blue, thus creating a color harmony from the 2024/2025 Cyberchic-Symbiotic trend forecast. The two front pockets that previously looked monotonous are modified with added slashing decoration using the multi-layering technique in the shape of a fern plant (spiral). The back of the jacket is decorated with the Straight Grain slashing technique in the shape of a blooming fern plant stretching upwards, has long sleeves, and there is a Straight Grain slashing decoration on the sleeve cuff, serving as a focal point and covering up flaws.



Figure 8 Product 5

In product 5, a denim jacket with a blazer collar and two buttons as an opening. This jacket is equipped with two pockets on the front of the jacket to which abstract-shaped slashing decoration using the Multi Layering technique is added. The colors used are a combination of two colors, dark blue and light blue, thus creating a color harmony from the 2024/2025 Cyberchic-Symbiotic trend forecast. This design aims to address the flaw of the design being outdated. The back of the jacket and the sleeves are added with two-way opposing Straight Grain slashing, giving a more artistic aesthetic touch and enriching the overall design of the jacket.

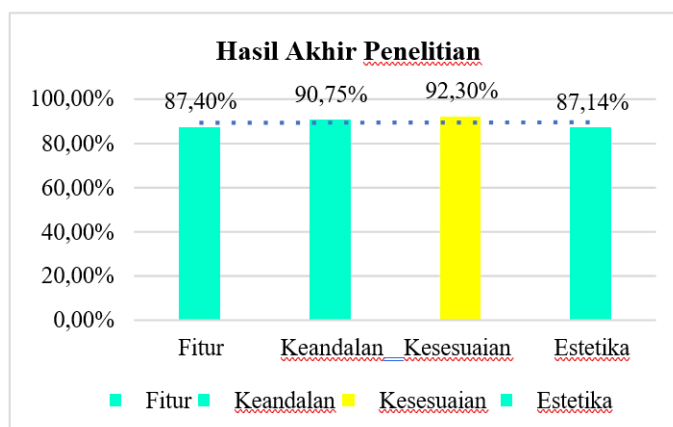


Figure 9 Final Diagram of Product Quality: Features, reliability, conformance to specification, and aesthetics

The diagram shows the overall results of the Product Quality theory according to David Garvin in Vincent Garperz, quoted by Husein Umar (2005), in four aspects, namely Features, Reliability, Conformance, and Aesthetics, as listed in the table. The Conformance aspect obtained the highest score with a percentage of 92.30%. This indicates that the workmanship process using the slashing technique, namely multi-layering and straight grain slashing, was assessed as very good and suitable. This technique successfully created a good harmony in implementing the inspiration motif. The Reliability aspect obtained a score percentage of 90.75%. This is due to the quality of the stitching, the material used, and the shape based on the occasion of use. Based on the panelists' opinion, this product has very good product quality, including the slashing decoration which still uses the same fabric so it virtually appears harmonious. The Features aspect reached a percentage of 87.40%. This assessment shows that the slashing decoration with motif placement was assessed as very good, because its suitability with the upcycled jacket product style is appropriate. The combination of the slashing fabric manipulation technique with the color combination on the denim jacket was assessed as optimal in improving the function and aesthetics of the jacket. The Aesthetics aspect obtained a percentage score of 87.14%. Overall, the four aspects fall into the very good category. This indicates high suitability, which was achieved through the correct application of the slashing technique, good proportion, appropriate placement of the slashing, appropriate placement of the two slashing techniques, and the application of two varied fern plant motifs. Moreover, the selection of dark and light blue colors is considered appropriate due to the 2024/2025 trend forecast. Furthermore, the highest and lowest design assessments were also obtained for the upcycled second hand denim jacket product with the slashing fabric manipulation technique, as follows:

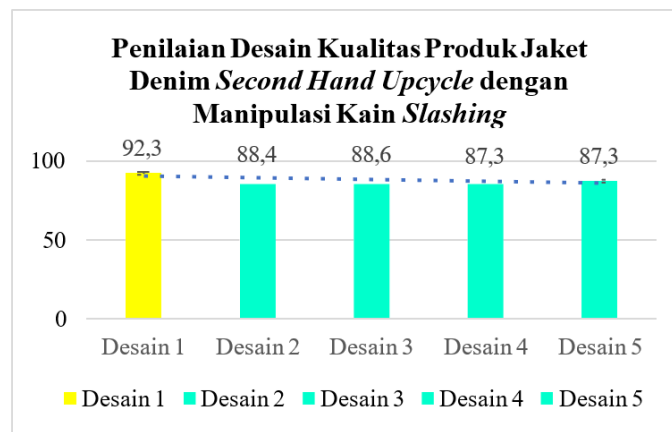


Figure 10 Final Diagram of Product Quality: Features, reliability, conformance to specification, and aesthetics

The diagram above shows the final assessment results of the five upcycled second hand denim jacket product designs with the slashing fabric manipulation technique. The design with the highest score is design 1, which obtained a percentage score of 92.3%. This result shows that the application of slashing to decorate the denim jacket is most appropriate according to the product quality assessment which includes the four aspects of features, reliability, conformance, and aesthetics. Panelists stated that design 1 is the most artistic, attractive design and successfully fulfilled all assessment aspects optimally. The lowest score was obtained by design 2 with a percentage score of 88.4% in the very good category. Panelists opined that the application of color and the slashing technique poured out still need to be explored, such as the use of slashing color which is still less striking, the placement of slashing which is not yet dynamic, and visible product defects. This indicates that design 2 is in accordance with the principle of total product characteristics according to David Garvin's theory, quoted in Fandy Tjiptono (2016:136).

4. CONCLUSION

Based on the research conducted, the researcher concludes several points applied regarding the ready-to-wear Upcycled Denim Jacket product by adding fabric manipulation decoration with a combination of slashing techniques, namely:

1. Second hand denim jackets that have minor damage can be reused to create products with new and more artistic designs.
2. In finishing the unfinish slashing made with an abstract fiber direction of the denim material, it produces thread frays in a matching color.
3. Production remnants or fabric scraps are utilized for slashing decoration with a pattern following the inspiration of the fern plant theme.
4. Multi layering slashing decoration uses a stack of four layers of cotton material and one layer of denim material that must be sewn together with a machine following the fern plant pattern to make it easier when sewing and damaging it.
5. Straight grain slashing decoration uses one layer of denim material that must be sewn using a machine in the middle of the fabric surface, and one by one strands of the denim fabric fiber are pulled to produce good fibers.

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