



## Batik Motifs in Conserving Regional Potentials and Indonesian Local Wisdom

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**Abstract:** Many Batik motifs in North Sumatra are adopted from the decorative motifs of the Batak tribe. The Malay tribe is a symbol of the city of Medan, which has an attractive variety of decorations. This research aims to produce Malay batik motif designs and carry out batik trials on fabric with motifs that have been developed. This research uses the IDI development model. The result of validating the motif design aspect is 0.83, and the motif appearance aspect is 0.88. The functional aspect assessment resulted in a score of 0.87. The assessment result of the color aspect obtained a score of 0.87, and the balance aspect of batik design motifs obtained a score of 0.79. The validation results conclude that the developed batik motif is declared suitable for use in producing textile products in Malay batik. The results of the development of Malay batik can increase its diversity, potentially advancing local culture in the fashion world.

**Keywords:** batik, local wisdom, malay

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## INTRODUCTION

Indonesia is a country that has ethnic and cultural diversity (Lestari et al., 2021). This diversity makes Indonesia a country that is rich in potential in every region, including handicrafts, food, textiles, and natural tourism. Regional potential in the textile sector includes weaving, Batik, embroidery, and embroidery, but Batik has become global. Batik is a potent symbol of Indonesian heritage and identity, and its traditions were chosen to shape Indonesia's national identity (Febriani et al., 2023; Widiana, 2019). The emergence of Batik determined a crucial point that changed the narrative of Batik to become very meaningful for the Indonesian people. Political shifts, technological innovation, economic transformation, social revolution, and other phenomena have caused changes in the narrative (Lenton et al., 2022; Smith et al., 2020; Centola et al., 2018). Therefore, UNESCO has designated Batik as a Cultural (Aditya, 2014; Asiatun & Islami, 2020; Setiawan et al., 2016; Triana & Retnosary, 2020). This decision was well received in Indonesia. Since that day, October 2 has been celebrated as Batik Day. With official recognition from this world body, Batik is now entering the stage of how to protect, preserve, develop, and promote Indonesian Batik throughout the world (Saraswati, 2012).

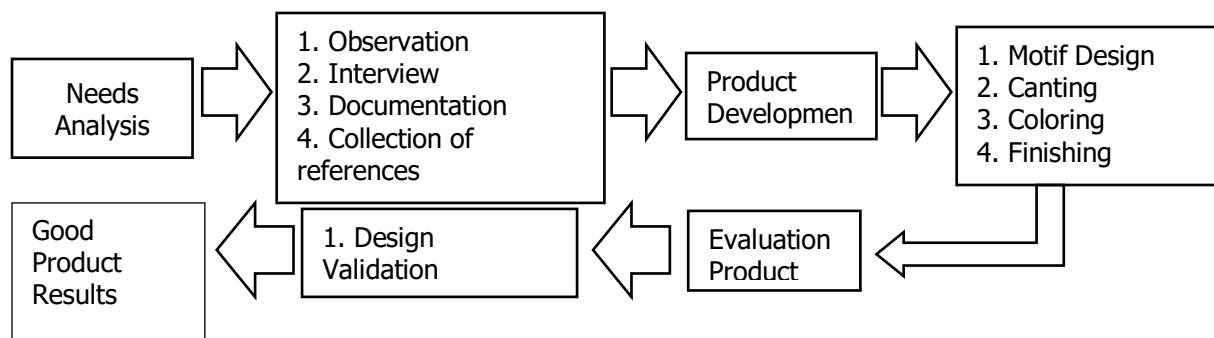
The number of provinces producing local Batik in 2021 is 27 (Raya et al., 2021). The appearance of batik motifs is a characteristic of each region or family of origin. Batik motifs can show a person's status/rank. Batik motifs and their variations are adapted to the philosophy and culture of each region. The richness of Indonesian culture is the basis for creating various motifs and types of traditional Batik, each unique (Trixie, 2020). Classical motifs have existed since the royal era and are still preserved today. Classic motifs are very popular with certain groups, especially the older generation. For the younger generation, classic motifs are considered old and ancient and are only used on certain occasions (Suratman et al., 2019). For this reason, motif innovation is needed so that various groups can accept it. Many batik motifs have been developed with various regional motifs, for example, West Java Megamendung Batik, Garut Batik, Indramayu Batik, Priyangan Batik, Majalengka Batik, and so on.

Batik is the potential of every region and is part of a culture passed down from generation to generation that cannot be separated from the surrounding community. North Sumatra is one of the provinces developing its regional batik potential. This has been done since the 2000s and continues to move to improve its batik industry. The ethnic differences in North Sumatra inspire the batik motif itself. This makes Batik unique because it creates new motifs to introduce them to the environment quickly. North Sumatra Batik, better known as Medan Batik, takes inspiration from Ulos, which is a typical North Sumatra Batak weave. The development of North Sumatra batik can advance local culture and fashion trends in Indonesia (Nasution et al., 2022). Medan, identified with Malay ethnicity, is sinking and does not appear on the surface when using Malay motifs and decorations. In general, Batik motifs in North Sumatra are adopted from the traditional decorative motifs of the Batak (Limpong, 2019). So, every Batik produced in Medan is dominated by Batak motifs. Therefore, in this research, the researcher and his team developed and innovated North Sumatra Malay batik motifs to become a creative industry for the local community and explore the regional potential in the form of Batik. One of the

efforts is to develop North Sumatran Malay motifs to be applied to batik cloth. With efforts to explore regional potential, the impact of this activity is to provide business opportunities for local communities to reduce the government's burden, namely by following up on Indonesia's increasingly high unemployment rate. The research also provides knowledge and comprehension to craftsmen and prospective North Sumatran batik artisans through a collection of North Sumatran Malay motifs, which will be developed later. The passing of the baton on local community businesses will provide experience and readiness for the next generation in advancing regional industry so that it is better known and loved by the community and preserves the heritage of the Indonesian nation.

## METHODS

Research and development is a method used to produce products and increase their effectiveness (Borg & Gall, 1983). Research and Development must meet the criteria of validity, practicality, and effectiveness (Seels & Richey, 1994). This research was conducted at the Fashion Design Education Study Program at Medan State University. The development model in this research was the IDI model. In this research, the IDI model was modified by researchers according to needs. The procedure for developing Batik motifs can be seen in the following picture:



**Figure 1.** Development Procedure (Trianto, 2012)

The stages of developing mobile cooking application media started from Define. The definition stage includes (1) Observation, carried out to see the development of batik types and motifs in North Sumatra; (2) Interview, carried out to obtain information on batik motifs used, sources of motif ideas, and raw materials used in the batik making process; (3) Documentation; carried out by collecting images related to research; (4) Collection of references, in the form of research supporting books and other related research journals.

The next stage was development. Researchers choose motifs to be developed into initial batik products. The motif is then stylized by changing the position of the motif shape and color. After the design layout was completed, coloring trials were carried out using CorelDraw. After the coloring process, the motif was transferred to the cloth to be made into Batik. The final stage in the batik-making process is washing to remove the dye from the fabric, and other finishing is carried out according to industry SOP. Clothing products were manufactured from the developed batik materials. Fashion products were made in the form of men's long-sleeved shirts.

The evaluation stage aims to start the production of Malay batik products. Before the questionnaire was used to measure batik products given to the product validator, it had first to be seen whether it was valid to be used as a product measurement tool. If the assessment obtained from the validation of the questionnaire is suitable for use as a measuring tool in research, then it can be used as a validity assessment questionnaire. Questionnaires were given to experts who were used to validate products. Product validation used quantitative descriptive analysis. Statistical data were calculated using the Aiken (1985). The Aiken formula has calculation results ranging from 0 to 1, which means the value has a fairly high coefficient (Azwar, 2014).

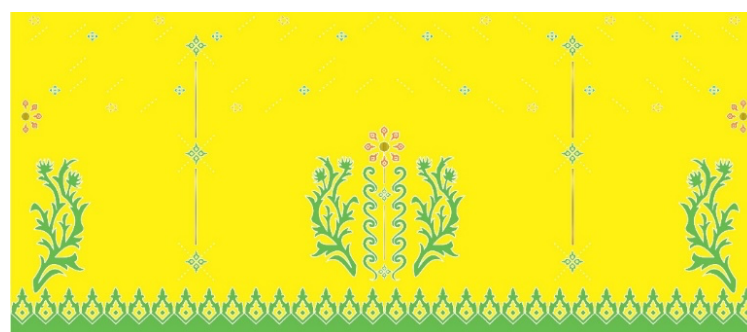
## RESULT AND DISCUSSION

Batik is an icon of Indonesia. Batik in North Sumatra is widely adopted from the decorative motifs of the Batak tribe, so North Sumatra Batik is often called Batak batik. In fact, in North Sumatra, there are not only Batak tribes but also Malay tribes, which are icons of the city of Medan. The development of batik motifs in North Sumatra is a creation of motifs based on the ethnicities in North Sumatra (Astuti, 2019). Therefore, it is also necessary to develop batik motifs from the Malay decorative variety so that Batik in North Sumatra is rich in batik motifs. This can also be a business opportunity for local communities and has the potential to advance local culture in the world of fashion. The development of Malay batik motifs was carried out using the IDI development model. IDI includes three stages: definition, development and evaluation (Gustafson & Branch,

1997). In this research, the defined stage consists of observation, interviews, documentation, and a collection of references related to North Sumatran batik motifs. The development stages were carried out to develop the initial product in batik motifs and the selection of Malay batik motifs to be developed. The evaluation stage was validated by experts in the field of Batik.

The definition stage is carried out by observation. Observations were made to see the development of the types and forms of songket motifs produced by the songket industry in the coal district of North Sumatra. This research takes inspiration from coal Malay songket motifs. Interviews were conducted with industry parties to obtain information regarding the motifs, sources of motif ideas, and raw materials used in the batik-making process. Interviews were conducted in several industries that produce Batik, one of which is Ardhina batik, a batik style. Based on interviews, it is known that the application of traditional North Sumatran Malay ethnic ornaments as a source of local culture is still limited to specific fields, and geographically, its existence is still local. Various kinds of ornaments owned by ethnic Malays include: morning sunlight, flower wheel, flower and birds wheel, fighting a dragon, Sula wheel, cloud larat, jalajala, heart trellis, violin trellis, golden horse saddle, sunflower, tampuk areca nut, unbroken tiles, plants and birds, rich wajid, and shoots of bamboo shoots (Sirait, 1980; Sinar & Darnys, 1992). Each ornamental motif has a specific meaning that is still believed by the local community. Therefore, this ornamental motif can be used as a basic concept or idea in developing Malay batik motifs with typical Malay patterns and styles as a local identity. Documentation was carried out during the interview process at industrial locations, and images related to research were collected to support the development of Malay batik development ideas. Various references are also collected at the definition stage to support research sources. The references are from supporting books and related research (Kusumawardhani & Reni, 2012; Hami & Suryawan, 2009).

In the development stage, the researcher develops the initial Malay Batik Motif product. The researcher chose a Malay ornament motif, which will be developed into a Malay batik motif. Stylization techniques are used to develop batik motifs that are adapted to the layout and composition of the motif so that a proportional motif is created. However, the development of motifs still refers to the basic form of Malay motifs, so the meaning of each motif is still attached to Batik. After the stylization process is complete, arrange the motif layout into the fabric area with a 110 cm x 200 cm width. The attraction of batik products is the choice of color combination and color balance. Color, as well as shape, is a medium for conveying messages and conceptually using humans and perceiving color with a concept. In message communication, color can strengthen the value of the message conveyed through Batik (Marzuqi, 2015). Color is an essential element in creating batik motifs. After generating the motif layout, a coloring trial is carried out with CorelDraw X7 software. After producing the motif layout, a coloring test using CorelDraw X7 software is carried out. This is done to reduce the risk of errors in the direct dyeing process on batik cloth. After the batik motif design development process, the motif is transferred to a special material. In this process, the motif lines must not be broken so that the color of each motif is in its respective place during the coloring process. In the dyeing process, the proportion of each color used must be adjusted to balance the results obtained. The final stage is removing the wax, binding the batik dye, and washing it to clean the batik material from stuck-on dirt.



**Figure 2.** The Final Result of Batik

At the evaluation stage, validation of Malay batik products is carried out. Validation of Malay batik is carried out by experts in the field of Batik whose aim is to validate the batik products produced. Revisions to this process were carried out based on the validator's suggestions and comments.

**Table 1.** First Expert Validation Results

| <b>VALIDATOR 1</b>  |                        |          |                   |          |           |            |
|---------------------|------------------------|----------|-------------------|----------|-----------|------------|
| <b>No</b>           | <b>Statement Items</b> | <b>R</b> | <b>s = r - lo</b> | <b>c</b> | <b>lo</b> | <b>c-1</b> |
| 1                   | Item 1                 | 4        | 3                 | 5        | 1         | 4          |
| 2                   | Item 2                 | 4        | 3                 | 5        | 1         | 4          |
| 3                   | Item 3                 | 5        | 4                 | 5        | 1         | 4          |
| 4                   | Item 4                 | 5        | 4                 | 5        | 1         | 4          |
| 5                   | Item 5                 | 4        | 3                 | 5        | 1         | 4          |
| 6                   | Item 6                 | 4        | 3                 | 5        | 1         | 4          |
| 7                   | Item 7                 | 5        | 4                 | 5        | 1         | 4          |
| 8                   | Item 8                 | 5        | 4                 | 5        | 1         | 4          |
| 9                   | Item 9                 | 4        | 3                 | 5        | 1         | 4          |
| 10                  | Item 10                | 5        | 4                 | 5        | 1         | 4          |
| 11                  | Item 11                | 4        | 3                 | 5        | 1         | 4          |
| 12                  | Item 12                | 5        | 4                 | 5        | 1         | 4          |
| 13                  | Item 13                | 5        | 4                 | 5        | 1         | 4          |
| 14                  | Item 14                | 5        | 4                 | 5        | 1         | 4          |
| 15                  | Item 15                | 4        | 3                 | 5        | 1         | 4          |
| 16                  | Item 16                | 5        | 4                 | 5        | 1         | 4          |
| 17                  | Item 17                | 5        | 4                 | 5        | 1         | 4          |
| 18                  | Item 18                | 5        | 4                 | 5        | 1         | 4          |
| 19                  | Item 19                | 4        | 3                 | 5        | 1         | 4          |
| 20                  | Item 20                | 5        | 4                 | 5        | 1         | 4          |
| $\Sigma s$          |                        |          |                   | 69       |           |            |
| $n(c-1)$            |                        |          |                   | 80       |           |            |
| $\Sigma s/[n(c-1)]$ |                        |          |                   | 0,86     |           |            |

In Table 1, it can be seen the results of the assessment of the first validator with a score of 0.86. Following the validation threshold value, the value of V 0.6 and above is stated in the valid category.

**Table 2.** Second Expert Validation Results

| <b>VALIDATOR 2</b>  |                        |          |                   |          |           |            |
|---------------------|------------------------|----------|-------------------|----------|-----------|------------|
| <b>No</b>           | <b>Statement Items</b> | <b>r</b> | <b>s = r - lo</b> | <b>c</b> | <b>lo</b> | <b>c-1</b> |
| 1                   | Item 1                 | 5        | 4                 | 5        | 1         | 4          |
| 2                   | Item 2                 | 5        | 4                 | 5        | 1         | 4          |
| 3                   | Item 3                 | 5        | 4                 | 5        | 1         | 4          |
| 4                   | Item 4                 | 4        | 3                 | 5        | 1         | 4          |
| 5                   | Item 5                 | 4        | 3                 | 5        | 1         | 4          |
| 6                   | Item 6                 | 5        | 4                 | 5        | 1         | 4          |
| 7                   | Item 7                 | 5        | 4                 | 5        | 1         | 4          |
| 8                   | Item 8                 | 5        | 4                 | 5        | 1         | 4          |
| 9                   | Item 9                 | 4        | 3                 | 5        | 1         | 4          |
| 10                  | Item 10                | 5        | 4                 | 5        | 1         | 4          |
| 11                  | Item 11                | 5        | 4                 | 5        | 1         | 4          |
| 12                  | Item 12                | 5        | 4                 | 5        | 1         | 4          |
| 13                  | Item 13                | 4        | 3                 | 5        | 1         | 4          |
| 14                  | Item 14                | 4        | 3                 | 5        | 1         | 4          |
| 15                  | Item 15                | 5        | 4                 | 5        | 1         | 4          |
| 16                  | Item 16                | 4        | 3                 | 5        | 1         | 4          |
| 17                  | Item 17                | 4        | 3                 | 5        | 1         | 4          |
| 18                  | Item 18                | 5        | 4                 | 5        | 1         | 4          |
| 19                  | Item 19                | 5        | 4                 | 5        | 1         | 4          |
| 20                  | Item 20                | 5        | 4                 | 5        | 1         | 4          |
| $\Sigma s$          |                        |          |                   | 73       |           |            |
| $n(c-1)$            |                        |          |                   | 80       |           |            |
| $\Sigma s/[n(c-1)]$ |                        |          |                   | 0,91     |           |            |

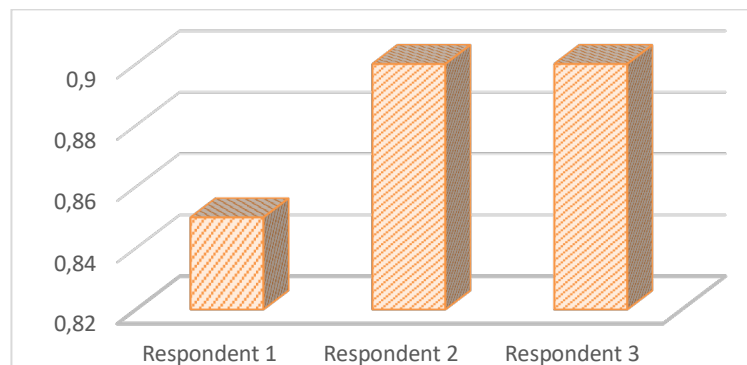
Table 2 shows the results of the second validator's assessment, with a score of 0.91. In accordance

with the validation threshold value, a value of V 0.6 and above is stated in the valid category. The score of 0.91 obtained is included in the valid product category.

**Table 3.** Third Expert Validation Results

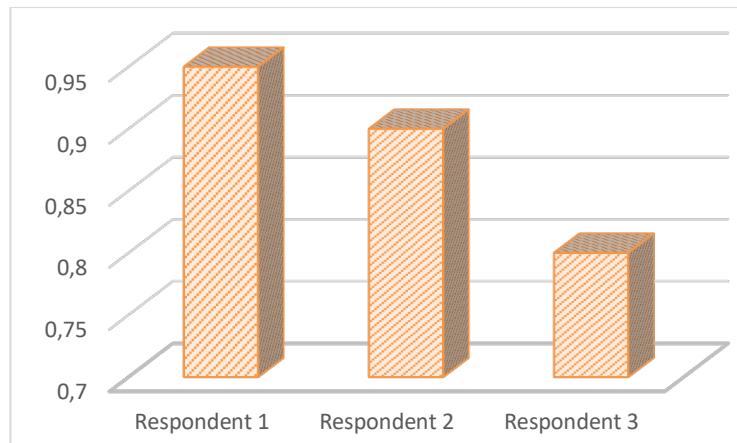
| <b>VALIDATOR 3</b>  |                        |          |                   |          |           |            |
|---------------------|------------------------|----------|-------------------|----------|-----------|------------|
| <b>No</b>           | <b>Statement Items</b> | <b>r</b> | <b>s = r - lo</b> | <b>c</b> | <b>lo</b> | <b>c-1</b> |
| 1                   | Item 1                 | 5        | 4                 | 5        | 1         | 4          |
| 2                   | Item 2                 | 5        | 4                 | 5        | 1         | 4          |
| 3                   | Item 3                 | 4        | 3                 | 5        | 1         | 4          |
| 4                   | Item 4                 | 5        | 4                 | 5        | 1         | 4          |
| 5                   | Item 5                 | 4        | 3                 | 5        | 1         | 4          |
| 6                   | Item 6                 | 4        | 3                 | 5        | 1         | 4          |
| 7                   | Item 7                 | 5        | 4                 | 5        | 1         | 4          |
| 8                   | Item 8                 | 4        | 3                 | 5        | 1         | 4          |
| 9                   | Item 9                 | 5        | 4                 | 5        | 1         | 4          |
| 10                  | Item 10                | 3        | 2                 | 5        | 1         | 4          |
| 11                  | Item 11                | 4        | 3                 | 5        | 1         | 4          |
| 12                  | Item 12                | 4        | 3                 | 5        | 1         | 4          |
| 13                  | Item 13                | 5        | 4                 | 5        | 1         | 4          |
| 14                  | Item 14                | 4        | 3                 | 5        | 1         | 4          |
| 15                  | Item 15                | 4        | 3                 | 5        | 1         | 4          |
| 16                  | Item 16                | 4        | 3                 | 5        | 1         | 4          |
| 17                  | Item 17                | 4        | 3                 | 5        | 1         | 4          |
| 18                  | Item 18                | 5        | 4                 | 5        | 1         | 4          |
| 19                  | Item 19                | 3        | 2                 | 5        | 1         | 4          |
| 20                  | Item 20                | 4        | 3                 | 5        | 1         | 4          |
| $\Sigma s$          |                        | 65       |                   |          |           |            |
| $n(c-1)$            |                        | 80       |                   |          |           |            |
| $\Sigma s/[n(c-1)]$ |                        | 0,81     |                   |          |           |            |

In Table 3, it can be seen the results of the assessment of the second validator with a score of 0.81. By the validation threshold value, the value of V 0.6 and above is stated in the valid category. Then, the score of 0.81 obtained is included in the valid product category. Details of the validation of each aspect assessed can be seen in the image below:



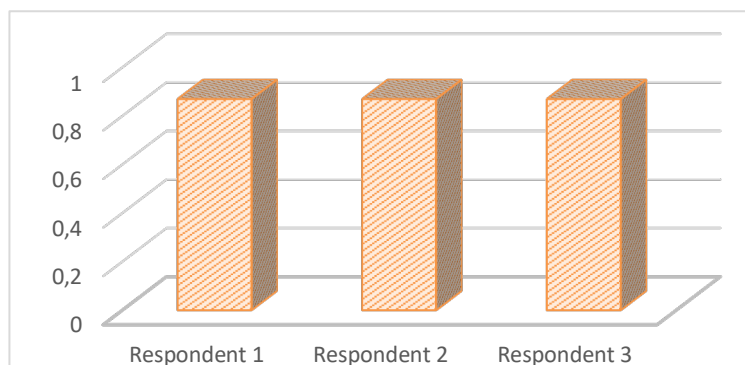
**Figure 3.** The Average Scores of the Design Aspect

Figure 3 shows Table 3 shows that the assessment results on the design aspect obtained a score of 0.85 from respondent 1 and a score of 0.90 from respondent 2 and respondent 3. The displayed batik motif designs adopt typical Malay forms. Shape element analysis is carried out by identifying each typical shape that often appears in batik patterns. These typical shapes are then collected, and the typical shapes most often appear in the batik pattern (Kusumowardhani, 2018). By identifying and adopting Malay ornamental forms, motif designs will be created that have Malay characteristics.



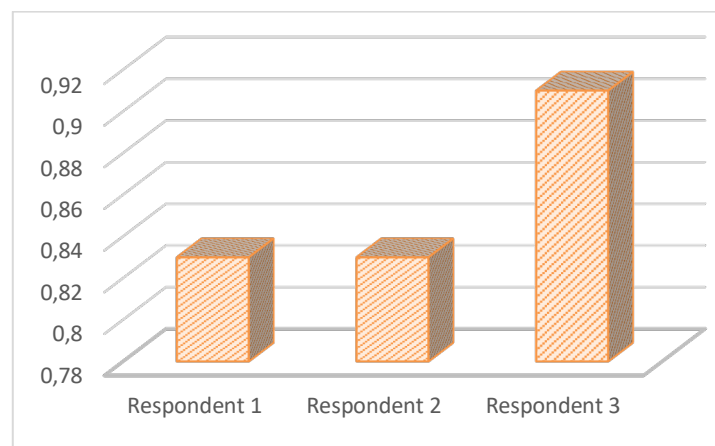
**Figure 4.** The Average Score of the Appearance Aspect

In the description of [Figure 4](#) above, respondent 1 assesses the appearance aspect of Malay batik with a score of 0.95, respondent 2 with a score of 0.90, and respondent 3 with a score of 0.80.



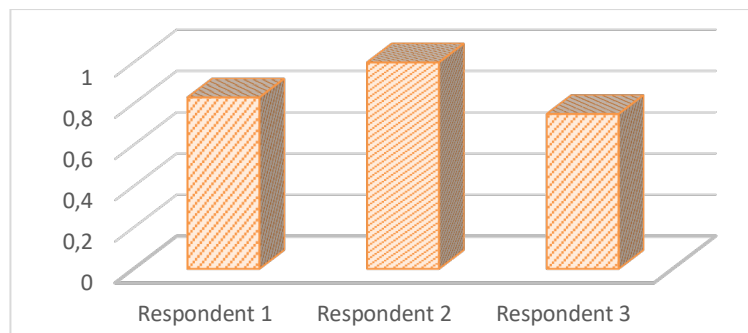
**Figure 5.** The Average Score of the Functional Aspect

The assessment results on the functional aspect obtained a score of 0.87. The functional aspect of this research includes the function of Malay ornaments, which are used as Malay batik motifs. The function of ornaments is divided into sacred and secondary functions ([Rusli et al., 2020](#)).



**Figure 6.** The Average Score of the Color Aspect

The assessment of the color aspect obtained a score of 0.83 from Respondent 1 and Respondent 2 and a score of 0.91 from Respondent 3. In this research, the motif and background colors on Batik use yellow and green. Yellow and green are the typical colors of the North Sumatran Malay ethnic group ([Atmojo, 2013](#)).



**Figure 7.** The Average Score of the Balance Aspect

The first respondent assesses the balance aspect with a score of 0.83. The second respondent gives a score of 1, and the third respondent is 0.75. The process of developing Malay batik motifs is carried out by applying design elements and principles that are proportional to one another (Sipahelut & Petrussumadi, 1991). In this way, designs and novelty motifs that characterize the Malay ethnic group will be arranged. Batik products are made with a classification of 200 cm in length and 110 cm in width. The basic color used is yellow, and the color for developing the hillside flower motif is light green. The bamboo shoots motif was modified into three motifs, the first for decoration on the lower side of the Batik using a combination of yellow, white, and light green. The second bamboo shoot motif, a sunflower, consists of eight modified bamboo shoot motifs arranged in a circle on an octagonal object in the middle. The color used is orange, and the middle motif uses yellow. The third bamboo shoot modification motif is in the form of a rectangular shape, the colors used are green, and the outline color is white.

Batik benefits the economy, and its popularity has increased in the global market since it was designated an intangible cultural heritage (Shaharuddin et al., 2021). Batik is produced by influencing wax through a dot technique to create a certain design on the surface of the cloth (Leong, 2005). Each design contains various visual elements from local culture, myths, nature, and religion (Lee, 2016). The development of batik motifs with regional characters is one of the potentials for developing new (contemporary) batik motifs through regional motifs; almost all regions are developing their batik potential, such as North Sumatra. North Sumatra has various ethnicities, one of which is Malay, which is also an icon of the city of Medan. However, in North Sumatra, batik motifs are dominated by Batak motifs only. The community needs to develop Malay ornaments that have become icons of the city of Medan into contemporary batik motifs.

The evaluation results are to show the aesthetic, identity, innovation, economic, and technical value of the batik products that have been made. The use of Malay motifs in Batik is not just one type of decorative motif but several types combined into one new form. Malay batik motifs were developed through stylization techniques. The proportions and composition of the motifs also match their shape; some are vertical, and some are horizontal so that the motifs look harmonious. In this study, the colors used in Batik are green and yellow. Green and yellow are the original Malay colors. Overall, the harmonization of colors and motifs looks harmonious, because the combination of colors chosen strengthens each other and the motifs chosen are harmonious. A harmonious and harmonious combination of colors and lines will display beautiful, charming patterns and motifs (Wulandari, 2022). This shows that the Malay batik motif is suitable for printing on cloth sheets. The development of this batik motif can be an alternative to developing batik motifs in North Sumatra based on local patterns. The richer decorative motifs derived from Malay ethnicity will make the world of fashion increasingly popular and in demand and ultimately contribute to the development of the textile and fashion industry. Batik is also able to open up business opportunities for local communities so that it can improve the creative industry (Kusumawati et al., 2021; Magh'firoh, 2019).

## CONCLUSION

Batik motifs symbolize the characteristics of specific regions. The development of North Sumatra Malay batik motifs was carried out using the IDI development model. This research found that developing Malay batik motifs must be carried out by applying proportional design elements and principles. Form elements are analyzed by adopting Malay ornamental forms to create motif designs with Malay characteristics. The visual elements of each design are adopted from religion, nature, regional myths, and other cultures. The North Sumatran Malay batik motifs that have been developed show the aesthetic, identity, innovation, economic, and technical values of the batik products that have been made. The use of yellow and green represents the uniqueness of native Malay colors. Overall, the harmony of colors and motifs looks harmonious, because the combination of colors chosen strengthens each other and the motifs chosen are harmonious. The average product validation result is 0.86 in the feasible category. From these data, the development of Malay batik motifs in North Sumatra Province

is worthy of development to improve the creative industry. The increasingly rich decorative motifs from the Malay ethnic group will contribute to developing the textile and fashion industry. Batik is also able to open up business opportunities for local communities so that it can improve the creative industry.

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