

# Development of Industrial Engineering for Tablecloth Crafts, Collaboration with Gorga Naulu Village and Banji ornaments

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## Abstract

The development of industrial engineering specifically for tablecloths is a creative activity in the Fashion Design Education Study Program, State University of Medan which produces new products. The method applied to the creative activity is the explosive method. The process of developing creative tablecloths for the dining room, namely; 1) general material about art and design; 2) concept map creation; 3) visual sketches; 4) design of basic motifs and master motifs with coreldraw media; 5) making dining room tablecloths on the patchwork technique; 6) scientific work on craft creation. The activity of developing the tablecloth craft industry aims to improve the skills and knowledge of students in the field of craft and design. So that the preservation of regional culture has increased and is maintained properly.

**Keywords:** tablecloth, collaboration, Gorga naulu, Banji

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## 1. Introduction

Learning development is an effort to improve the learning process in terms of materials, methods, and substitutions. In terms of material, it can be found in teaching materials that are adapted to the development of knowledge. Then the methodology and substance are applied to the development of theoretical and practical learning strategies. So that development is part of an effort to improve theoretical, conceptual, technical, and moral abilities as needed through training and education. Likewise, development comes from the step process section to develop a new product or improve an existing product that can be accounted for by the product designer.

When applied to products, the development and research of a craft is an effort to perfect the product and its functional value based on the needs that can be accounted for, both technically, materials, concepts, product manufacturing processes, to packaging that has a selling value for the needs of the community. So that product development aims to improve and refine old products into new products that have more value than the previous one.

Industrial engineering can be defined as a skill that applies a new product engineering approach to design, evaluate, and increase productivity in an integrated system of people, materials, equipment, technology, and information. When it is associated with the engineering of the craft industry, it involves applying expertise in the field of art and design that applies new craft-making techniques to design, evaluate, and improve the quality of crafts that are useful for human life and have aesthetic value.

The craft industry is part of the craft of art, which works of art made through the skills of the craftsman's hands without the help of machines. Craft art has a function value and the value of the need for beauty, thus craft art is called applied art. An example of a tablecloth craft is an applied art that suppresses the value of function by paying attention to the value of beauty or aesthetics. The tablecloth craft serves to protect the table from dirt and dust and protects the table from scratches by sharp objects that can damage the table surface, as well as giving a beautiful appearance to the table surface.

In craft, a collaboration process is needed, where collaboration is a process of working together to channel ideas or ideas and solve problems together towards a common vision. An example of an organization that needs each other, collaboration is the key to creative thinking to produce the best products when solving complex problems in the socio-cultural environment. Collaboration can be successful if it is done by practicing and being able to identify the time and know how to collaborate well with partners. Therefore, it requires an understanding and appreciation of the skills, competencies and character of others. The highest level of collaboration success can be achieved when collaboration involves people with different work styles, values, cultures, education, and work backgrounds. Thus the current collaboration can run effectively with the need for mutual trust and respect.

Ornaments are generally defined as decorations or decorative elements obtained by imitating or developing forms that exist in nature, this can be called a stylized form. Ornaments are part of a form of fine art that is often applied to building carvings, jewelry, household appliances, clothing, and other products. According to history, ornaments have existed since prehistoric times until now and are still needed as a tool to add to the sense of beauty needed by humans, for example adding to the beauty of an item so that it is better and more attractive,

then ornaments are found in symbolic values or the philosophy of life of humans or the environment. society, thus the objects they treat have deep meaning and meaning and are accompanied by certain expectations. So it can be concluded that ornaments are expressions of feelings that are embodied in works of art that are applied as symbols, constructions, supports, barriers, with the aim of adding to the aesthetic value of the objects they occupy and are decorative.

In the development of the craft industry, the author wants to provide creative results in the creation of tablecloth crafts, especially the dining room, with the collaboration of Gorga Naualu and Banji ornaments. This creative product is realized based on two elements of Chinese culture and the culture of Toba-North Sumatra, resulting in an innovative, unique, and creative tablecloth craft. The development of the craft industry was carried out in the creative activities of students of the fashion education study program at the State University of Medan. This creative activity is carried out to improve knowledge and skills in the craft industry. It is hoped that the younger generation will be able to develop and create new crafts in the future. So that the preservation of regional culture is well maintained and can improve the welfare of the community.

## 2. RESEARCH METHOD

In this paper, the author uses an explosive qualitative research method. This explosive method is a way to find new inspiration through a critical thinking process to produce new designs that have never been designed by others. This method produces a craft industry product in the form of a tablecloth in the dining room, a collaboration of ornaments from Gorga Village, Naualu Batak Toba and Banji Cina. The process of creative engineering activities for the dining room tablecloth craft industry, namely:

1) General knowledge of craft art.

Delivery of general knowledge of the craft industry to students through the media zoom meet or called online. Lecturers present teaching materials using power point, corel draw, and videos through online learning. So that the delivery of craft industry material runs efficiently, effectively, and systematically to students who take industrial engineering lessons, especially in the field of crafts.

2) Concept map

Students make a concept map design based on the product theme to be created. The stages in making a concept map are as follows; 1) ideas as the background of creation; 2) drawing sketches in the form of motif sketches and tablecloth sketches; 3) design motifs and tablecloths in corel draw; 4) materials and equipment; and 5) manufacturing techniques. These five stages are made in a systematic, complete, and clear manner on the flow chart. Thus the manufacture of tablecloth products is more focused, easy, fast, and precise in the manufacture and completion of the new product.

3) Sketch the image.

In this third stage, students carry out creative activities in the form of drawing sketches manually. Drawing sketches of motifs and tablecloth products is done to practice hand skills in painting motifs and products using a 2B pencil on the surface of drawing paper. Then train the brain in developing new imaginations into applied products based on concept maps that have been made by creators or designers.

4) Motif design.

In the fourth stage, creativity is carried out in designing motifs that enhance the sketch of the image into a master of motif drawing and master of tablecloth drawing with corel draw media. Then the resulting images and colors are more perfect and aesthetically appealing. The motif design is realized through the idea of collaboration between two cultures, especially the ornaments of the Gorga Desa naualu Batak Toba and the Banji Cina ornaments. So that the created crafts produce innovative, efficient, effective, and unique artistic and cultural values.

5) Making craft dining room tablecloths.

Furthermore, the creativity of making tablecloths is carried out with waste media from cloth materials that are recycled into patchwork. The making of the tablecloth is done manually, namely with the skills of the creator's hands in making products that have functional values for the community. The stages of making table cloth crafts are as follows: making a pattern pattern on the surface of the base cloth through the process of tracing the master motif that has been prepared; tracing certain motifs on the surface of the patchwork and cutting it according to its shape; the process of sewing patchwork motifs on the basic material of table cloth with feston stitches and basting sewing; and finishing on the edges of the tablecloth fabric by slitting and sewing lace. Thus the craft of the dining room tablecloth looks aesthetic and unique.

6) Scientific papers.

Scientific papers are made by students in a systematic, complete, and detailed manner based on the development of a concept map that has been created by the creator. The process of making scientific papers starts from the background of creation, theoretical studies, discussion of the tablecloth craft industry, conclusions and suggestions, and references. Scientific papers made can provide knowledge for the community in developing Nusantara products. Thus, students can share their experiences and knowledge about the development of the

tablecloth craft industry that collaborates between Toba Batak and Chinese cultures.

Some steps for making basic motif designs on Corel media are as follows:

#### 1. Drawing paper

Drawing paper is created on the Corel Draw screen by clicking on the file; new; create a new document table appears; click the name and fill in the table with the basic motif design; click width and fill the table 5cm; click height and fill the table 7cm; click primary color mode and select RGB; click rendering resolution and fill in the table 300 dpi; and click OK. Then a plain white drawing paper measuring 5X7cm appears on the Corel Draw screen and is ready to be used as the basic motif drawing paper.

#### 2. Basic motive.

The basic motif is designed on page 1. The process of making the basic motif starts from displaying a manual drawing sketch on the Corel Draw screen drawing paper, then the outline of the basic motif is made by clicking the pen tool; select black color by clicking the default palette while simultaneously clicking the right mouse button. Then the outline of the basic motif is black. Then click the pick tool on a certain shape according to the desired color according to the design concept; then choose a color in the default palette of green, blue, or red; right and left mouse click then the fill color and the outline of the shape have the same color. So that various types of shapes in the basic motifs have been given their respective colors according to the design concept.

#### 3. Outline the shape

The outline of the basic motif is designed on page 2. The steps for making the outline of the motif are as follows: first, pick the tool for all the basic motifs on page 1; press ctrl copy; press ctrl V or paste on the screen page 2. Then a duplicate of the basic motif appears on the screen page 2. Then click the X on the default palette; click the left mouse button, the color content of the motif will be erased and only the outline of the motif will appear; and choose black in the default palette to give black color to the outline of the basic motif. These are the steps for making the outline of the basic motif.

#### 4. Separation of red colored shapes.

The shape of the red motif is designed on page 3. The steps for separating the red visual form are as follows: first, click the pick tool for all the outlines of the basic motif on page 2; then press ctrl C or copy; press ctrl V or paste on page 3, then the duplicate screen appears on page 3 The outline of the basic motif; click ungroup all objects, then the objects form stand alone; then click the pick tool in the red visual section, which is filled in by selecting the maroon color on the default palette and pressing the right mouse and left mouse, then certain sections of the maroon visual form appear; then in addition to the red outline, the shape will be deleted by clicking a certain visual pick tool, then clicking the left mouse and clicking the right mouse; select delete. Then objects that are not red will be deleted. Thus the next step on other color objects. This is the process of separating the colors on page 3, where there is only a part of the Maroon Banji ornament.

#### 5. Separation of dark green colored shapes.

The shape of the dark green motif is designed on page 4. The steps for separating the dark green visual form are as follows: first, click the pick tool for all the outlines of the basic motif on page 2; then press ctrl C or copy; press ctrl V or paste on page 4, then it will appear on the screen on page 4 a duplicate of the outline of the basic motif; click ungroup all objects, then the objects form stand alone; then click the pick tool for the dark green visual section, which is filled in by selecting dark green in the default palette and pressing the right mouse and left mouse, then a certain part of the dark green visual form appears; then in addition to the dark green outline, the shape will be deleted by clicking a certain visual pick tool, then clicking the left mouse and clicking the right mouse; select delete. Then objects that are not dark green will be deleted. Thus the next step on other color objects. Thus the process of separating the colors on page 4 where there is only a part of the Banji ornament that is dark green in color.

#### 6. Separation of navy blue colored shapes.

The shape of the navy blue motif is designed on page 5. The steps for separating the navy blue visual form are as follows: first, click the pick tool for all the outlines of the basic motif on page 2; then press ctrl C or copy; press ctrl V or paste on page 5, then the duplicate screen appears on page 5 The outline of the basic motif; click ungroup all objects, then the objects form stand alone; then click the pick tool for the navy blue visual section, which is filled in by selecting the navy blue color on the default palette and pressing the right mouse and left mouse, then certain sections of the sea blue visual form appear; then in addition to the outline of the navy blue shape, it will be deleted by clicking on a certain visual pick tool, then clicking the left mouse and clicking the right mouse; select delete. Then objects that are not navy blue will be deleted. Thus the next step on other color objects. Thus the process of separating the colors on page 5 where there is only a part of the Naualu Village Gorga ornament in navy blue.

#### 7. Separation of dark blue colored shapes.

The shape of the navy blue motif is designed on page 6. The steps for separating the dark blue visual form are as follows: first, click the pick tool for all the outlines of the basic motif on page 2; then press ctrl C or copy; press ctrl V or paste on page 6, then the duplicate screen appears on page 6 The outline of the basic motif shape; click

ungroup all objects, then the objects form stand alone; then click the pick tool for the dark blue visual section, which is filled in by selecting the navy blue color on the default palette and pressing the right mouse and left mouse, then certain sections of the dark blue visual form appear; then apart from the dark blue outline, it will be removed by clicking on a certain visual pick tool, then clicking the left mouse button and clicking the right mouse button; select delete. Then objects that are not dark blue will be deleted. Thus the next step on other color objects. Thus the process of separating the colors on page 6, which only has the shape of the ornament of the Gorga Desa Naualu in navy blue.

#### 8. Separation of sand colored background.

The sand-colored background shape is designed on page 7. The steps for separating the sand-colored background are as follows: first, click the pick tool for all the outlines of the basic motif on page 2; then press ctrl C or copy; press ctrl V or paste on page 7, then the duplicate screen appears on page 7 The outline of the basic motif shape; click ungroup all objects, then the objects form stand alone; then click the pick tool for the background section which is filled by selecting the sand color in the default palette and pressing the right mouse and left mouse, then the sand colored background appears; then in addition to the sand-colored outline, the shape will be deleted by clicking a certain visual pick tool, then clicking the left mouse and clicking the right mouse; select delete. Then objects that are not sand colored will be deleted. Thus the color separation on page 7 which only has a sand-colored background.

The next stages of making a motif rhythm or master motif design using Corel Draw media, which are as follows:

#### 1. Drawing paper

The process of making drawing paper by clicking on the file; new; the create a new document screen appears; the name table is filled with the motif master; width 15cm; height 21cm; number of pages 1; rendering resolution 300 dpi; preview mode; enhanced; and click OK. Then it appears on the screen a white drawing paper measuring 15X21cm. The drawing paper is ready to be drawn with the rhythm of the motif according to the concept desired by the creator.

#### 2. Repetition of motifs

Repeating the shape of the motif is done on page 1 by clicking the pick tool for all the basic motifs; press ctrl C; press ctrl V or paste; it will appear duplicate to 1 basic motif on drawing paper measuring 15X21cm at the center position of the drawing paper; then click group objects, then duplicate the basic motif to 1 bound into a unified whole. Next press ctrl C; press ctrl V, will appear duplicate to 2 basic motifs; then placed on the right side with parallel; then press ctrl C; press ctrl V, then the 3 duplicates of the basic motif appear and are placed in the left position parallel to the 1st duplicate. The next step is to pick the third duplicate of the basic motif tool by clicking group objects, thus the three motifs become a unified whole. then press ctrl C; press ctrl V, then a duplicate of the 4th motif appears and is placed at the bottom position of the middle motif parallel to the bottom line of the drawing paper; then click the third pick tool middle motif; press ctrl C; press ctrl V and a duplicate of the 5th motif appears. Then place it at the top position of the middle motif which is parallel to the top edge of the drawing paper. Thus the process of making the repetition of the basic motif becomes a master motif.

#### 3. Repeating the shape of the red motif

The repetition of the red motif is carried out on page 2 by clicking on all the repetitions of the motif or master motif on page 1; press ctrl C; press ctrl V, then the duplicate master motif appears on page 2. Then click ungroup all objects, so that the motif master stands alone in each shape item; then click the pick tool on a different motif, other than the red motif; then click the X on the default palette at the same time as clicking the left and right mouse buttons, then the different color shapes other than the red motif will be deleted. Thus on page 2 there is only a red form of the Banji motif or called the repetition of the red shape.

#### 4. Repetition of dark green motifs

The repetition of the dark green motif is carried out on page 3 by clicking on all the repetitions of the motif or master motif on page 1; press ctrl C; press ctrl V, then the duplicate master motif appears on page 3. Then click ungroup all objects, so that the master motif stands alone in each shape item; then click the pick tool on a different motif, other than the dark green motif; then click the X on the default palette together with the left and right mouse clicks, then the different color shapes other than the dark green motif will be deleted. Thus, on page 3 there is only a dark green Banji motif or it is called a dark green repetition of the shape.

#### 5. Repeating the shape of the navy blue motif.

The repetition of the navy blue motif is carried out on page 4 by clicking on all the repetitions of the motif or master motif on page 1; press ctrl C; press ctrl V, then the duplicate master motif appears on page 4. Then click ungroup all objects, so that the master motif stands alone in each shape item; then click the pick tool on a different motif, other than the navy blue motif; then click the X on the default palette together with the left and right mouse clicks, then the different color shapes other than the navy blue motif will be deleted. Thus on page 4 there is only the form of the Naualu Village Gorga motif in navy blue only or called Repetition of the sea blue color.

#### 6. Repeating the shape of the navy blue motif.

The repetition of the navy blue motif is carried out on page 5 by clicking on all the repetitions of the motif or master motif on page 1; press ctrl C; press ctrl V, then the duplicate master motif appears on page 5. Then click ungroup all objects, so that the master motif stands alone in each shape item; then click the pick tool on a different motif, other than the navy blue motif; then click the X on the default palette at the same time as clicking the left and right mouse buttons, then the different color shapes other than the navy blue motif will be deleted. Thus on page 5 there is only part of the shape of the Gorga Desa Naualu motif which is only navy blue or is called a repetition of the dark blue colored motif.

#### 7. Repetition of the sand-colored motif.

The repetition of the sand colored motif is carried out on page 6 by clicking on all the repetitions of the motif or master motif on page 1; press ctrl C; press ctrl V, then the duplicate master motif appears on page 6. Then click ungroup all objects, so that the motif master stands alone in each shape item; then click the pick tool on a different motif, other than the sand colored motif; then click the X on the default palette at the same time as clicking the left and right mouse, then the different color shapes other than the sand colored motif will be deleted. Thus on page 6 there is only a sand-colored background form or it is called a sand-colored background repetition. The creative process in making the tablecloth craft industry in the dining room is as follows:

##### 1. Making a tablecloth background

Making a tablecloth background by drawing geometric shapes with large squares measuring 35X30 cm and small squares measuring 10X 15 cm. Then the material is cut to follow the geometric pattern of the boxes. Furthermore, patchwork motifs are attached to each motif through a machine sewing process. Then the tablecloth material is ironed neatly. The patchwork used on the background is white polyester and sand. The attachment between the patchwork in the form of large and small squares is sewn using a machine sewing technique. Then the basic material for the tablecloth is ironed neatly.

##### 2. Making pattern patterns on patchwork.

The process of making motifs on patchwork is as follows: first, painting motifs on the surface of the red patchwork; secondly, painting the motif on the dark green patchwork surface; the third paints the motif on the surface of the navy blue patchwork; fourth, painting motifs on the dark blue patchwork surface; and then all the patchwork is cut according to their respective colors that follow the shape of the motif. Thus the process of making motifs on patchwork.

##### 3. Sewing patchwork motifs.

The third step is the process of sewing the patchwork motif on the surface of the tablecloth material manually using a hand needle and cotton thread in maroon, dark green, navy blue, and navy blue. Patchwork motifs are sewn using the Feston stitch technique on the edges of the patchwork motifs and the sewing process follows the shape of the motifs.

##### 4. Installation of accessories.

Installation of accessories is the finishing stage by attaching lace or ribbon to the edges of the tablecloth material through a basting stitch using a sewing machine. Furthermore, the tablecloth is neatly ironed so that the patchwork motif becomes even, does not shrink, and does not swell. Thus the process of making tablecloths specifically for the dining room is made according to the contents of the concept that has been systematically and creatively designed by the creator.

### 3. Results and Discussion

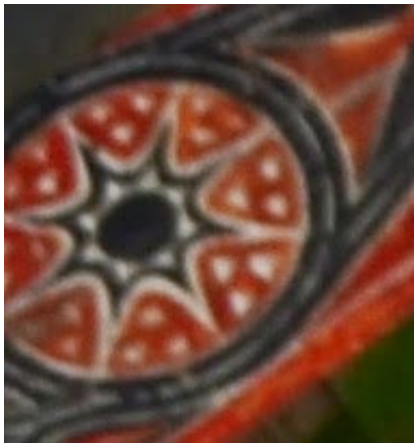


Figure 1. Gorga of Naualu Desa Village



Figure 2. Banji Symbol

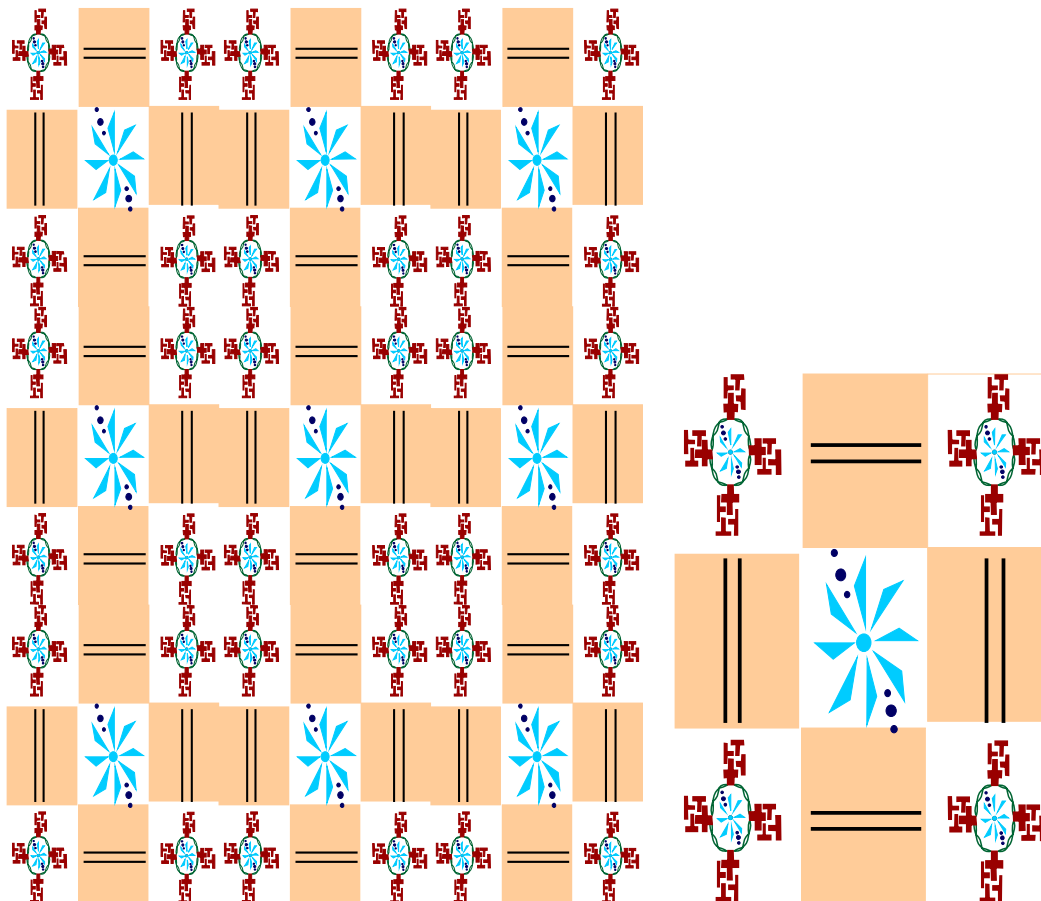


Figure 3. New Motif Design



Figure 4. Tablecloth Craft Products

Picture 1 is the art of carving Gorga Naualu Village attached to the wall of a traditional Batak Toba house located in North Sumatra-Medan attached to the left and right corners. Gorga Naualu Village is a symbol of the eight cardinal directions, namely east, southeast, south, southwest, west, northwest, north, northeast. Ornaments have meaning for the Toba Batak people, where the Gorga Naualu symbol is associated with ritual activities, farming season, fishing season. So that this symbol is applied in the proverb for the Toba Batak community which is interpreted as every season that starts, it should be done immediately, don't delay it anymore. Because the direction of the wind continues to rotate, so if we are complacent it will result in losses in the field of time and sustenance.

Picture 2 is the Banji ornament, which is part of the Chinese art and culture that entered Indonesia through the northern part of Java, which developed and settled there. In Chinese culture, the Banji symbol means cheap fortune or doubled happiness, where "ban" means thousand and "shi" means ten. The various forms of banji include rectangular banji blocks, circular banji to the left and right which are arranged in criss-cross with other motifs. There are four types of banji, namely bent banji, rolling banji, kacip banji, and kerton banji. The banji ornament developed into a banji form in collaboration with other motifs including the banji fauna motif, the banji flora motif, the key banji motif, the banji tepak motif, and so on.

Figure 3 new motif designs designed on corel draw media by applying Gorga Desa Naualu creations and Banji creations. This motif is divided into two parts, namely the basic motif design and the master motif. The motif master applies design principles, where there are the principles of balance, the principle of unity, and the principle of rhythm. While the basic motif design applies art elements such as the creation of lines, colors, and fields. The design of the motif comes from the idea of two different cultural elements, banji ornaments sourced from traditional Chinese-Chinese house ornaments. Furthermore, the Gorga motif in Naualu Village comes from the idea of carving traditional Karo Batak houses, North Sumatra, Indonesia). By applying maroon, dark green, navy blue, navy blue, and black colors.

Figure 4 The tablecloth craft is made manually with the skill of the creator's hand using polyester patchwork media, cotton thread, ribbon or lace, and hand needles. The motifs and basic fabrics of the tablecloth apply the patchwork method with feston and basting sewing techniques. The color applied to the tablecloth is analogous in color combined with pastel colors such as maroon, dark green, navy blue, navy blue. The process of making tablecloths in the dining room is as follows: first, make a pattern on the patchwork, cut out the motif, attach or sew the motif on the surface of the basic tablecloth material, sew ribbon or lace on the edge of the tablecloth material, and iron the product to make it neat. Making tablecloths applies elements of art and design principles in a structured and conceptual way by applying cultural acculturation.

### Visual Aesthetic Value Approach

The aesthetic value of the tablecloth craft in the dining room embodies a product that is unique, creative, and has functional value for the community. Table cloth crafts are made based on elements of art and design principles, namely:

First, the principle of balance. The tablecloth craft applies the principle of balance, this is seen from the

arrangement or arrangement of several types of shapes that become the motif of the tablecloth in the dining room. The Gorga Naualu Village motif is located in the center of the tablecloth cloth and is accompanied by 2 Banji motifs on the right and 2 Banji motifs on the left. Then the tablecloth is made up of different sand and white colors in the shape of a square and a rectangle arranged in a criss-cross manner with the ABABAB pattern. Thus the study of the concept of balance applied by the craft.

The two principles of rhythm. The tablecloth product applies the principle of rhythm in the form of repetition of forms. When viewed with the application of rhythm, the repetition of the form in this product consists of large pulkadot shapes, small pulkadots, rectangular fields, square fields, chain line shapes, large shapes of Gorga Desa Naualu, small shapes of Gorga Desa Naualu, and repetition of Banji shapes. With various types of shapes, which are applied to the tablecloth craft, it will produce a creative product aesthetic. Thus the rhythm in the aesthetics of the motif is clearly visible in the direction of the field, the content of the form, and the volume of the form. Thus the tablecloth ornaments are composed in a measured and systematic manner on the application of the principle of rhythmic repetition of forms and the application of artistic elements in the aesthetics of the motif.

Third, the principle of unity. The tablecloth craft in the dining room applies the principle of unity to the value of the beauty of the motif. The principle of unity in this tablecloth craft can be seen from the diversity of color types, namely maroon, dark green, navy blue, navy blue, sand, and white. Then the principle of the unity of the tablecloth craft is viewed from the diversity of forms, namely rectangular geometric shapes, geometric squares, circles, Banji shapes, and Gorga forms in Naualu Village. The diversity of types of colors and shapes that are arranged systematically, then the unity of form and color becomes a unified whole that cannot stand alone. So it can be concluded that the different types of shapes and colors create a unity of motifs that have artistic, aesthetic value, and have benefits for the needs of human life. Likewise, the diversity of tribes, religions, customs, and cultures creates a sense of brotherhood and unity in the nation and state with the values of the beauty of human life that are varied and beneficial for the interests of fellow human beings.

#### 4. Conclusion

The development of industrial engineering, especially in the field of tablecloth crafts in the dining room, is a creative activity related to the art and design industry. This creative activity is carried out by students of the fashion education study program in creating new craft designs. The development of the craft industry is behind the acculturation of different cultures, namely the collaboration of Gorga Naualu Village from the culture of the Toba Batak people in North Sumatra-Indonesia. While the Banji ornaments are from the Chinese-Chinese culture. This is the source of ideas in the development of industrial engineering, especially in the field of crafts. So that the tablecloth craft industry produces new art products that are ethnically valuable, creative, and have functional values for people who have a sense of love for local products.

In the tablecloth craft industry in the dining room, the explosive method is applied. This method produces new designs that have never been made by others through the process of looking for new ideas by means of critical thinking. the steps taken in the development of special tablecloths for the dining room are as follows: 1) delivery or supply of materials for the art and design industry; 2) create a tablecloth craft concept map; 3) shape sketch; 4) design motifs and tablecloths using coreldraw media; 5) the creation of tablecloth crafts on patchwork media; 6) making scientific papers on the development of the tablecloth craft industry in the dining room.

Creative activities in the craft industry are the background for cultural acculturation through the collaboration of Gorga Desa Naualu from the culture of the Toba Batak people in North Sumatra-Indonesia. while the Banji ornaments are from the Chinese-Chinese culture. This is the background for the creation of tablecloths in the dining room which is the source of the creator's ideas. The ornament symbol of Naualu Village Gorga symbolizes the eight winds, which means for the Toba people are ritual activities, fishing season, and farming season. So that the meaning of the ornament for the Toba people says that whatever season it is, it should be done immediately and don't delay it anymore. Because the direction of the wind continues to rotate and don't be complacent which can result in losses in time and fortune. Then the Banji ornament symbol for the Chinese people symbolizes the meaning of cheap fortune or doubled happiness.

Making basic motifs using coreldraw media by applying the following steps; (1) making drawing paper; (2) make the basic motif on page 1; (3) separation of the maroon colored shapes on page 2; (4) separation of the dark green colored shapes on page 3; (5) separation of the blue-colored shapes on page 4; (6) separation of the dark blue colored shapes on page 5; and (7) the separation of the sand-colored background shapes on page 6. These are the steps in making the basic motif design in CorelDraw as well as in the stage of making the motif rhythm or master motif in the next step.

The process of making tablecloths in the dining room is as follows: 1) making geometric patterns of rectangles and squares on white and sand polyester patchwork as the base material for the dining room tablecloths; 2) the process of cutting and sewing the geometric shapes of rectangles and squares as the basic motif of a long cloth that matches the width of the tablecloth; 3) making the Gorga Village Naualu pattern and



the banji pattern on maroon, dark green, navy blue, navy blue patchwork; 4) the process of cutting the pattern according to the shape of the motif; 5) the process of sewing the motif on the surface of the tablecloth base material. The sewing technique applied to the motif is feston stitch and chain stitch on the twig; 5) finishing processes such as ironing the surface of the tablecloth neatly and the motif is not bloated. Thus the development of industrial engineering for tablecloth crafts, collaboration of Gorga Desa naualu and Banji ornaments carried out by students in order to increase creativity, knowledge, and skills in the field of art and design. It is hoped that the next generation of the nation will be able to open up new job opportunities in the form of home industries, boutiques, garments, as well as textile and household handicraft industries. So that the preservation of regional culture continues to increase and is well maintained in this modernization period.

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