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Sustainability in transforming cultural feature into cultural creative product design (Case study of Malangan mask)

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ABSTRACT

Culture is a manifestation of human thought in response to their environment. In a conventional way, it preserves because inheritors in some cases have their economic lives depend on it. In the design field, the effort of preserving culture tends to put culture as a design element instead of the sustainability of its community. To preserve culture a fair action should be taken on both sides of the cultural product and cultural actor/inheritors because, without the existence of the community, the cultural product would not exist. This study will present a technical process of those fair action by implementing a research model of FGHIJ which stands for Fairness, Gain Humanity, Impact, and Joy as a framework to explore the culture fairly. For a better understanding of a practical level, the Malangan mask culture will become a case study in this study as a real case. This paper shows the methodological process to transform the cultural products in order to make it more adaptive, but at the same time empowering local. From the conducted survey it's proven that the method has the potential to be applied as a pilot project and expected to give alternative ways in cultural sustainability.

Keywords: Malangan Mask, Cultural sustainability, empowering design, transformation, cultural creative product. This is an open access article under Creative Commons Attribution 4.0 License.

1. Introduction

The change of time is inevitable. Culture is a manifestation of human thought in respond to their environment in order to survive.the changes of time indirectly which change the way people respond to its. Back on the old days, culture were created and use as a part of daily activity. In today era, culture plays an important role in the field of design and cross cultural design will become a key point in design evaluation in the future (Lin. 2007) Koentjara Ningrat (2000) define culture as a "power of mind" in the form of creativity, intention and taste, while culture is the result of creation, intention, and taste. He distinguish three forms of culture: (1) The form of culture as a complex of ideas, ideas, values, norms, rules and so on. (2) The form of culture as a complex of activity and the patterned actions of man in a society. (3) The form of culture as objects of human works. Culture also could be define as

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'manifestation of human thought process that inherited from time to time' (Chiou, Armayuda, Yang, Lin 2018). In the context of reviving culture in this studies is refer to the definition of culture number 3, as the form of human works which refer to cultural product. To be success full, innovative product must have a clear and significant difference feature that is related to market need (Hsu, Chang, Lin, 2012).

In order to sustain, culture indeed should adapt to the change of time. This article will discuss a sustainability issue, especially in the cultural product, that some of the communities also depend on it for economic purpose. On the other hand, the same case is the reason why some of the inheritors give up and no longer take the activity of preserving it. By giving a literature review of FGHIJ model in preserving culture, the author will give a methodological process in transforming the cultural product into a product which could empower local in order to sustain. The process will also be assessed by conducting a survey about each transforming product to find out how the potential according to the idea of involving local people to make it sustain. The phenomena put some culture are endangered because the activity of preserving culture is not a promising profession.

One of the real case of such phenomena is the existence of Malangan mask. Back on the days there were at least 8 different villages in Malang region which still preserve the mask by making a mask and held a mask performance as a value of its mask. Unfortunately today there is only 4 villages remain to continue the activity while the other village are no longer do the activity of making Malangan mask. The economic factor becomes the main issue of it. The wage rates do not meet the minimum wage standard (Setya, Djatmika, Suharto, 2017). The threat of extinction also becomes the main problem because there are no written sources that can be made at the documentation and reference in the future (Hidajat, 2018). Without the noble desire to preserve culture, the profession of cultural actor is not an attractive professional sector for business, especially for the young generation (Armayuda, 2019).

The correlation between design and culture tends to combine in the form of new cultural creative products which tend to put cultural features as a design element. The designer who has an idea and a care of preserving culture sometimes go to the village to get the information about the cultural feature. When they go back from the village they make an analysis and create an idea of implementing those feature in a product design and when they finish to create and put it on the market and get the benefit of it, the inheritors and the local community where the designer get the idea of the product are still live in the same economic level as before.

In that ways, rather than focus on exploring the culture and create a new one which is more attractive and adaptive in the market, the fair exploration should be taken in order to give a better impact on both, cultural product, and community because culture is not only a tangible product, but its also mean the community and its activity. This paper aims to make awareness to all of the fellow designer which has a caring in preserving culture to do a fairness exploration not only for the product but also the community. Further more, design is not only a science to make an aesthetic product for good looking, make a thing work efficiently for good using, or even make a product that fulfil the market needs as good selling, but also it could make a sustainability for a good caring. Designers do need to know more about science and engineering, but without becoming scientists or engineers. We must not lose the special talents of designers to make our lives more pleasurable (Norman, 2002).

2. Literature review

Chiou, Armayuda, Yang, Lin 2018 in their paper propose a new research model in design for cultural preservation by adopting a design thinking from Tim Brown and Jocelyn Wyatt (2010) as a complement of previous model of ABCDE as a model to turn culture (Arts), into Business using Creativity and Design in order to put it on E-Business. The previous model of ABCDE shows how to take care a culture and make it more adaptive in today market, while the complement model called FGHIJ which stand for Fairness, Gain, Humanity, Impact, and Joy, promote a model to explore not only to preserve the cultural feature but also to take good care of its community.

The model promote exploration in transforming cultural product from cultural feature by considering the involvement of local people as a social responsibility in preserving culture. Because the process of transforming the potency of traditional board game into new design product is not as easy as replacing the old material or shapes into new modern material (Armayuda, Lin, Lin 2018). as Papanek

(1971) said “How does the professional stand for this? designer help to wield power to change, modify, eliminate or evolve totally new patterns. have we educate our clients, our sales force, the public? have the designer attempt to stand for integrity and better way? have we tried to push forward, not only in the market place, but by considering the needs of people?”.

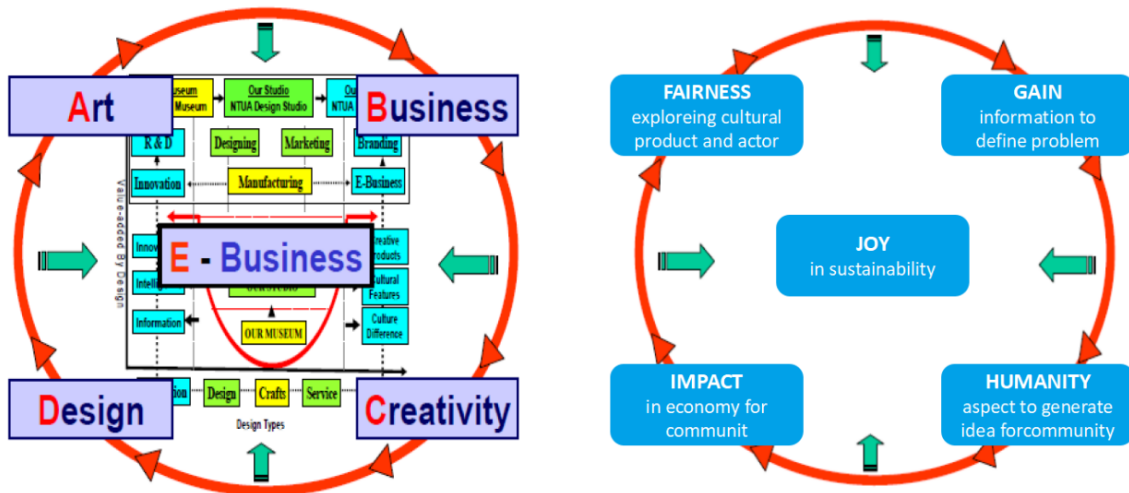


Figure 1. ABCDE and FGHIJ for preserving culture in fair ways

In order to preserve culture designers could not just comes and get the information about the culture and make new product inspire and posses with the cultural element from where designer get the information and sell it to the market as a representative of particular cultural community. That would be an irony instead of preserving culture designer just make a new cultural product that more attractive and adaptive in today market which later becomes the competitor of the original cultural product which tends to old fashioned and traditional.

Therefore this research will utilize an FGHIJ model as a research framework that guide this research to get a closer step in sustainability for cultural preservation by conducting a fair exploration in both ways product and its community.

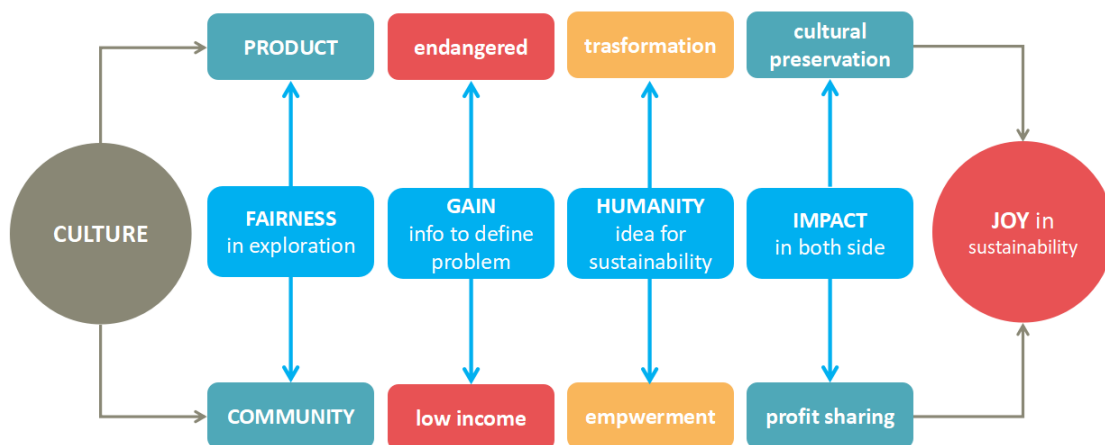


Figure 2. Application of FGHIJ in cultural fair exploration

The figure above explain that the application will start by a “Fairness” exploration in both ways product and community, to “Gain” the information to define the problem which shows as endangered in the product and low income in community. The “Humanity” aspect as social responsibilities to solve the problem using science of design which comes to transformation in product and empowerment for community, which expected to gives an “Impact” in cultural preservation and a profit sharing in the whole process to help the community. In that ways the “Joy” will be accomplished in the form of cultural sustainability.

3. Methodology

3.1 Fair exploration in preserving culture

The method used in this research is descriptive method by describing the original Malangan mask culture and transform it into new cultural product design following a transformation model by Lin which also consider the involvement of local people in the whole process of design.

The process to transform the feature of culture (in this case is Malangan mask) translate by following the model from “identification” the cultural feature comes to “translation” it into design concept that would comes to “implementation” in product design process. The phase of identification, translation, and implementation would be easier to divide it into three phase called MAP; “Method

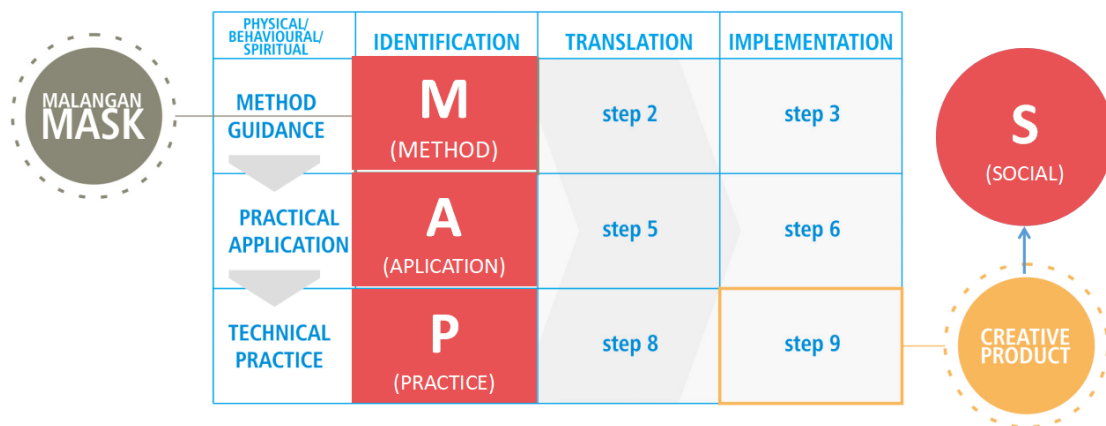


Figure 3. Design model to transform cultural feature guidance”, Practical Application”, and “Technical Practice”.

The first stages from the “Method Guidance” can start by using mind mapping to find keyword to explore. After ‘identify’ the chosen keyword, designer have to ‘translate’ keyword into anything related with design process that can be ‘implement’ to create product design theoretically.

The second stages of “Practical Application” is the stages of applying the previous theoretical method into practical case in daily case. The process could also start with mind mapping of daily case to ‘identify’ the practical application for theoretic idea at previous stages than ‘translate’ into applicable case to ‘implement’ the idea. The same step should be applied in the third stages of “Technical Practice” to apply the idea from previous stage into daily case which also ‘identify’ the usage, ‘translate’ into relevant segmentation than ‘implement’ in product design.

The keyword of “social” in the model above could translated as the consideration in involving local communities whether in technical production processes or in strategic studies in order to preserve culture. In that ways the process of preserving culture by design is not only create a new product acceptable by today market, but also a consideration to involve local people as an effort to make a sustainability for future generation, because culture is not about the physical form of product, but also an existence of particular community. Further more design is not only about give a good looking, good using, and good selling, but be able to give a good caring is also part of design for a better society. Berman on his book state that, designers must educate the public that design is about strategy, not decoration. However, such attempts are repeatedly undermined by a design world hooked on competitions and awards ceremonies that celebrate creativity instead of strategy results and sustainability (Bermen, D. 2008).

3.2 Gain information in both sides

Malangan mask by definition means mask from Malang city. The origin of Malangan mask still unclear. Some scholar state that malangan mask is a package from the Malangan mask dance tradition from Kediri kingdom, lead by Airlangga (Kamal 2010). The other scholar also speculate that tis culture from raket performance which once has been popular during the age of Majapahit (Hidajat 2018). At that time, the mask is used as religious ceremonial purpose, which influence by Hinduism. Later when

the Islamic culture comes, the mask has many progression since the Islamic scholar called Wali Songo (nine guardian) use the mask as one of the way to introduce Islam.

3.2.1 Cultural product of Malangan mask

The mask inherits and develop by different community in different village in Malang. There was 8 village that known develop this culture, Jabung, Kedung Monggo, Glagah Dowo, Kromengan, Sengguruh /Jenggala, Senggeng, Tumpang. Not all of the village survive until today. Its because the demand of mask show is no longer as much as the old days. One of the village that success to preserve the culture and consistence to create and perform Malangan mask is Kedung Monggo.

There is total 76 character of Malangan mask. Every character has their own stories and chapter of the dance. Generally, the character of Malangan mask can be separate as 4 group, 3 of them is a group of kingdom; Kadiri (Sekartaji), Jenggala (Panji Asmorobangun), Bantar angin (Klana sewandanu), and the group of creature yaksa/giant, monster, the maid, and supporting character.

The Mask character establish to complete the story in dance perform that tells about the Panji romance. Roman or Panji Stories is a classic literary work that is quite well known by Javanese,



Figure 4. All Malangan mask character(source from author)

Indonesian and even South east Asian people, in addition to the Ramayana and Mahabarata stories. As a classic literary work, this story is transformed into various new works of art and culture (Manuaba et al., 2013).

Wayang Topeng Malang is a performance that involves dance, so the presentation is more dramatic than drama. Presentation of characters using dance moves and words (vowels) performed by the puppeteer. (Hidajat 2014). Malangan mask exist not only because its various characteristic, but the mask has its own story and character which is live when perform as Malangan dance. The origin story of Malangan mask is adapt from Mahabarata, Ramayana, and also story of Panji and Menak, which is also spread in the west java (Kamal 2010).

3.2.2 Cultural actor/inheritors of Malangan mask

Around the 1930s Pigeaud recorded several mask dancer associations in Java, including the mask dance in the southern Malang area; Senggeng, Jenggala, Wijjamba, and Turen (Pigeud in Hidajat 2011). At that time they always maintain the communication between each other associations. The contact usually done in order to fulfil the mask demand at that time. The associations group which lack of mask craftsmen usually order the mask from the other associations (Hidajat 2011).

Discussing of how the culture still exist especially in Kedungmonggo village cannot be separate from the role of the inheritors of the culture. This Malangan mask culture we can find in Malang city until now is because the were as inheritors do a lot of work to survive. The real challenge of its

existence demand of Malangan mask dance as one of the income is no longer as much as before. The inheritors survive by performing Malangan mask dance in particular event and creating the mask to sell it in the store or by demand. On the other hand Inheritors of Malangan mask preserve the culture by teaching two thing, crafts to create the mask, and dance to perform the mask. He invite and teach local people to learn and give them sharing profit to what they done.

The biggest challenge of preserving this culture is the efficiency of mask production. That because the process of creating the mask takes so many days event a month depend on the size and complexity of the mask, but the process still not worth by the price of the mask. The craftsman can only sell in limited prices and the other business person came and buy with a cheap price so he can sell in the high price. This situation makes inheritors decide to invite more people to be trained as his team, but



Figure 5. Malangan mask and involvement of local people

the problem is when the trained people already master the skill, they go away from the community and decide to open their own workshop.

3.3 Humanity in sustainability of Malangan mask

Its been said in the previous chapter this study argues that in order to preserve culture the process should not only focus on transforming the product to be more adaptive, but also important to make the inheritors or any cultural actor involve in the process of transforming the product to make it more adaptive. Because the culture will sustain as long as there is a sustainability in it. This chapter will discuss about technical application of the transformation while involving local.

Due the large scope of the mask which is 76 character, this research will only choose the 5 mask as representation of the whole process. The decision of choosing only five character is based on the five figure of Malangan mask which is the iconic character that mostly played in the dance performance. In that ways some audience can still recognize the mask and the difference. The five character that choose to represent the process is Panji Asmorobangun (as the prince from Jenggala



Figure 6. Transforming model for cultural feature

Kingdom), Dewi Sekartaji (the prince of Kadiri Kingdom), Klana sewandanu (the prince from Sabrang Kingdom), Gunungsari (the neutral character), and the Ragil Kuning (the sister of Panji).

Regarding the main purpose of this research is to make adaptive product which is in line in today market, the image of mask will redraw with the popular style of drawing as we seen in bellow.



Figure 7. Transforming visual style of representing character

These five character represent the different colour and personality for the application. Panji Asmoro bangun represent the feature of honest, agile, wisdom, as a prince and define by green colour. Sekartaji hold the feature of beauty, elegant, delicate, in the white cream colour. Klana represent the strong character, arrogant, antagonist, and brave. Gungungsari represent the sacred, gentle, mature, in white colour, and Ragil Kuning represent the youth value, cheerful, exited, and smart.

4. Analysis and transforming

The process in transforming Malangan mask into new creative product design started by defining the design concept. Breakdown should be start by understanding the feature of Malangan mask. The feature of the mask is any element which can be identify by visual such as shape, colour, and engraving of the mask. The idea of Malangan mask character is distinguishing every feature in the story by craving different types of mask. In that way, the concept of product design in this level is creating product design which is visually attracting as a distinguished personality which the element is adapt from the feature of Malangan mask Icon.

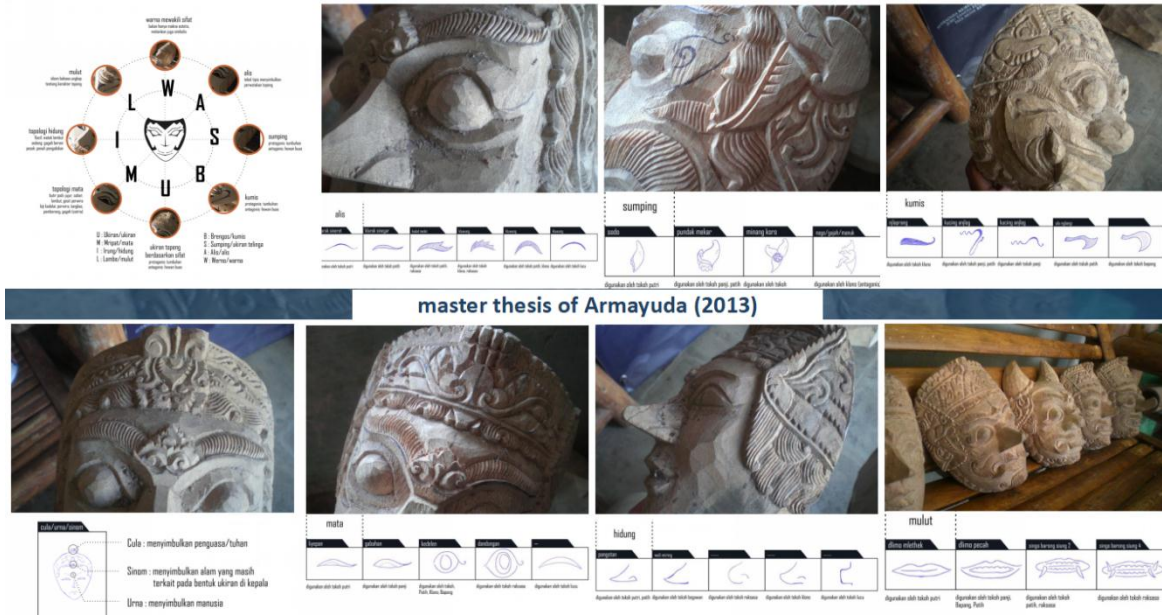


Figure 8. Exploration in mask feature (Armayuda 2013)

In the level of Method Guidance, to identify the feature of Malangan mask will refer to the previous research of Malangan mask, each mask could be identified as a different character by telling the element of WASBUMIL which stand for Werno (colour, Alis (eyebrow), Sumping (ear decoration),

Brengos (mustache), Urna (fore head decoration), Moto (eyes), Irung (nose), and Lambe (mouth). The identification later will be translate that it has a specific element of mask craving which could identify

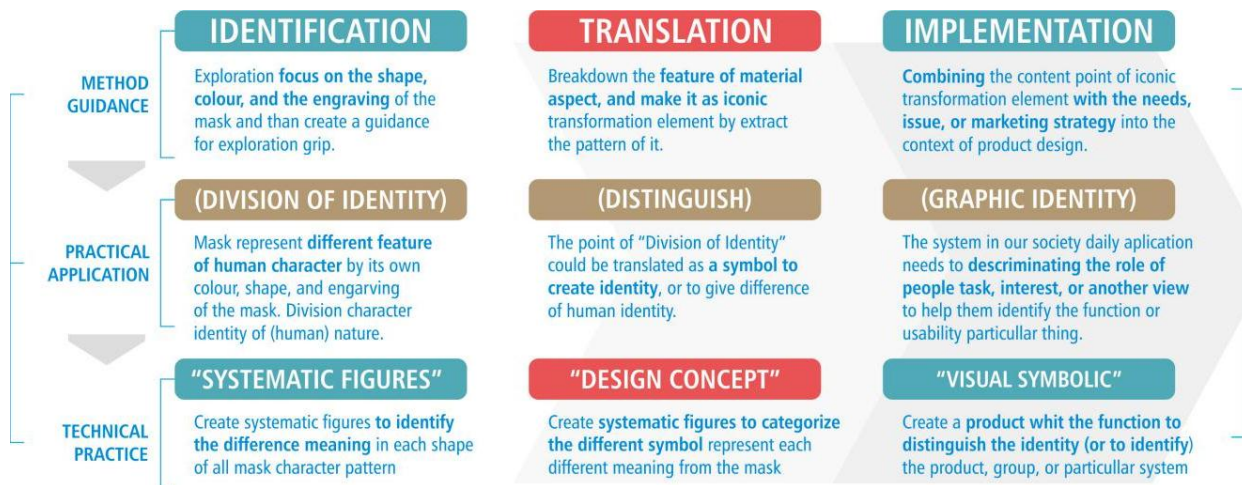


Figure 9. Transformation form in physical level

each character of the mask as distinguish factor from the other mask. The break down goes to the implementation stage of the translating information which will be elaborate by combining an issue or a content for particular market segmentation.

In Practical Application, in identification level, its can be describe as a division of identity which its element of mask could create a particular character. In translation level it could be simplify as “distinguish” of character which bring an idea in implementation level as a symbol or graphic to identify particular character or market segmentation. In the Technical level, the process will be started by creating systematic figure to identify each character which becomes a design concept of distinguish identity later implement as a visual symbolic of personal item.

In the method process, the Mask will identify as the original concept, than translate into keyword that still relevant with implementation idea. In the practical application, the process will be start again from identify the first identification in practical field. The keyword than extract as “distinguish” factor which is comes from the idea of distinguishing the character from each role, than formulate from Malangan mask element as Graphic identity which still refer to Malangan mask. From the phase of practical application, the idea of Malangan mask is a division of identity which translate as distinguishing identity, designer could create a guidance of graphic identity which later use to explore any of the element in the graphic to create symbol for new product.



Figure 10. Generated keyword concept

From the keyword of distinguish identity, the transformation process in product will combine the feature of 5 mask which also represent the concept of personal identity in daily life. At this point the stage of transforming cultural product already set a clear idea to the next step, but it has to be put on the mind that the process should also involve the local or inheritors, so the result would not only gives an impact on the designer who gives an idea to make a new product and get the benefit by selling it to the market, but the idea that distinguish this study with the other transformation process of cultural study is the involvement of local people that emerge in the word of “empowerment”. That is necessary to make a table of transforming process by putting the element of “Method analyse”, “Applied

keyword”, and “Practical execution” for the transformation process and a column for “Social empower” to make a clear process of execution.

Table 1.
Brief in design execution

Method analyse	Applied Keyword	Practical execution	Original mask	Feature	Transform	Social empower	
Mask for figure identity	Personal item (low class market segment)	Wooden Phone case	Panji	Green	Jazzy	Involve in wooden material production	
			Sekartaji	White	Romantic		
			Klana	Red	Rock		
			Gunungsari	Cream	Trance		
			RagilKuning	Yellow	Pop		
		Blood type personality	Panji	B	Easy going		Home industry souvenir
			Sekartaji	A	Prepare		
			Klana	B	Easy going		
			Gunungsari	AB	Strange		
			RagilKuning	O	Energetic		
	Fashion Product (middle class market segment)	Personal Key chain/ sticker	Panji	wise	Elegant	production of sewing and printing patterns	
			Sekartaji	beauty	Fashionable		
			Klana	arrogant	Strong		
			Gunungsari	casual	Casual		
			RagilKuning	youth	Sporty		
		Scarf	Panji	wise	Elegant		
			Sekartaji	beauty	Fashionable		
			Klana	arrogant	Strong		
			Gunungsari	casual	Casual		
			RagilKuning	youth	Sporty		
Souvenir Production (high class market segment)	Bandana Scarf	Panji	Green	Jazzy	Home industry souvenir		
		Sekartaji	White	Romantic			
		Klana	Red	Rock			
		Gunungsari	Cream	Trance			
		RagilKuning	Yellow	Pop			
	Custom Ring	Panji & Sekartaji	Wise & beauty	Couple ring			
		Klana	arrogant	Bottle Opener			
		Gunungsari	casual	Custom ring			
		Ragil Kuning	youth	Compass travel			

Note: the color interpretation was based on the original character of Malangan mask

The product design classify into three level of market segmentation to assess the preference of market. All of the product will follow the break down from five representative mask. Each product will represent each mask. The breakdown from the table will grouped into two group. Group A1 as product group which is representing personal item from wooden phone case, blood type pin, key chain, and sticker/magnet refrigerator which expected to representing personal preference.

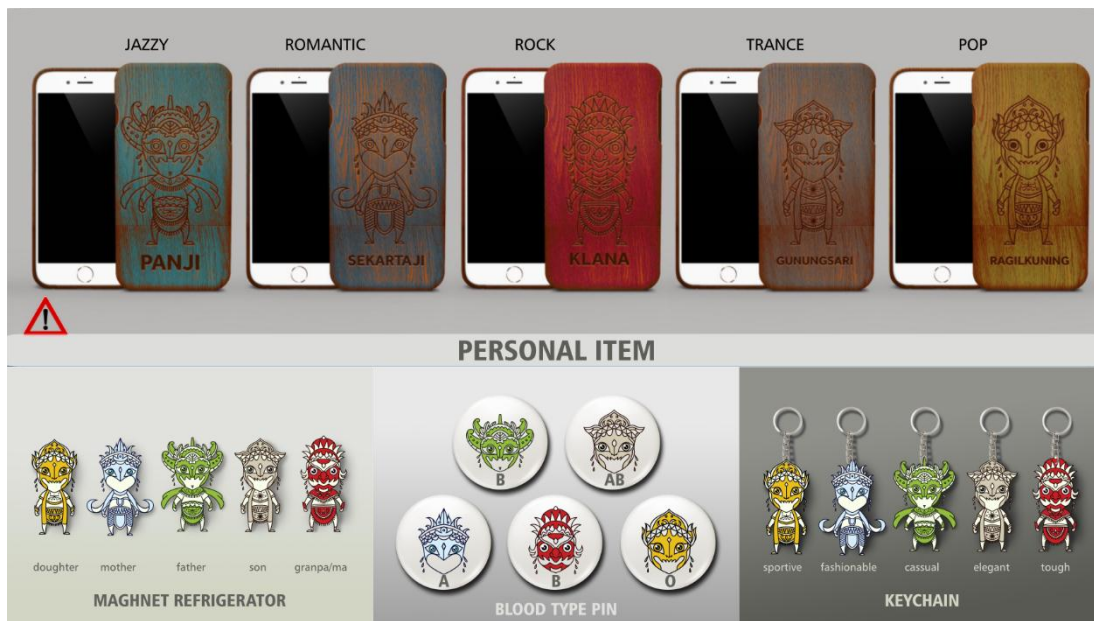


Figure 11. Transformation form in physical level Group A

The idea of distinguish item could be represent in product group A1 as; phone case, key chain, blood type pin, and sticker accessories. Which each of them represent the personality of particular segmentation that also represent by the mask. Red for strong representation on rock music and B type of blood, Green represent casual, jazzy, wise, and B blood type, white cream represent fashion, romantic as A blood type, White represent mature, elegant, and AB type blood, while yellow represent youth spirit and O type blood for sporty personality. This product tend to design for low class market segmentation which anyone can have it.

For the second group of product is inspire from sampur the scarf use as movement element in the dance, but in the new transforming product it used as the scarf accessories with the pattern motive of Malangan mask. The different motive and colour can be used based on the personality of user. There is two kind of scarf which can be adjust with the particular outfit.



Figure 12. Transformation form in physical level Group B

The second product group is a product group which is expected could be representing personal preference for fashion accessories. The idea in translating decorate outfit based on the real accessories used in the dance performance. This product item tend to design for middle class market segmentation either high class and low class could still afford for it.

From this phase of practical application, the generated keyword is to translate into romantic gift and the souvenir. The execution of ring product reflect by the different of the mask will be, the mask character custom, which can be customize based on the mask that match with the personality of the user. The second ring is represent Klana as the antagonist and arrogant character which translate into bottle opener that represent the character who likes to party. The next concept of ring is the couple ring represent Panji Asmorobangun and Dewi Sekartaji as a couple. The last concept is from the youth spirit Ragil Kuning that translate into the youth activity who likes to explore and travel to compass ring. This product design tend to be luxury item for high class market segmentation.

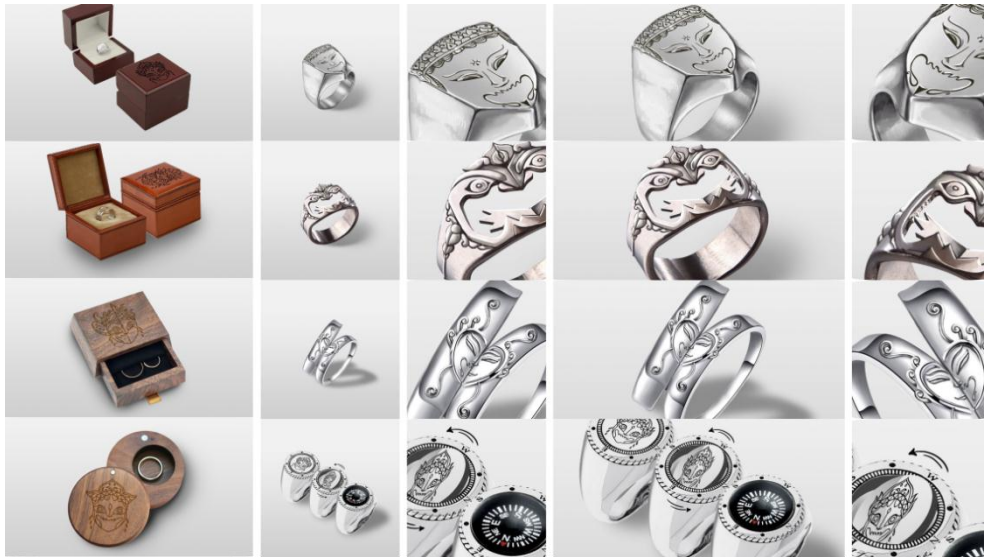


Figure 13. Transformation form in physical level Group C

The idea of choosing this product group is refer to the previous chapter about the condition of the real mask production which is lack of human resource and lack of representing product which is only wooden mask as a product which can represent and preserve the culture. By applying in the other product application, it expected that the local can also preserve the culture by do anything they can under Malang mask image.

5. Design process assessment

According to Papanek in his book *Design for the real world*, in the chapter of design responsibility express his argument about creating “How does the professional stand for this? designer help to wield power to change, modify, eliminate or evolve totally new patterns. have we educate our clients, our sales force, the public? have the designer attempt to stand for integrity and better way? have we tried to push forward, not only in the market place, but by considering the needs of people?”

To know how far the impact of this idea in the application field, a questionnaire was create to assess the impact from whole process of design process and to make sure that the design result fulfil the purpose of the research. The respondent was divide into variable of gender, age, region, and background. For age variable there will be three category. Bellow 20 year old, around 21-40 years old, and above 41 years old. For region, there will be from Indonesia which represent local tourism segmentation, Asia, and other country which represent international tourism segmentation. All of the variable later will be shown the product and ask what their idea of it in five scale criteria. After all of the question finally they will be ask about the most preference product, and how much they like the product from “very like and want to buy” to “dislike”.

5.1 Instrumentation

The questionnaire was develop to evaluate three main section of the study, transformation design, potential of local involvement, and the business potential to give economy impact to local. There will be two critical question in the form of scaling system from 1 to 5 with the criteria of each sides (lower score and high score). In the design process the two question is about the transformation,

is it already make it more modern, and the second is about the assessment whether the product bring the value of “distinguish identity” and become a typical product.

Table 2.
The question design for evaluation process

Evaluation	Question goals	Question feature (1 to 5 scale)		expectation
Design Process	Transforming cultural feature into	Traditional	Modern	Modern
		General	Typical	Typical
		Old fashioned	fashionable	Fashionable
		Popular	Romantic	Romantic
Local involvement	Production	Manufacturer	Home made	Home made
	Feasibility	Require skill	Anyone can	Anyone can
Business Potential	Original Mask image	Not representing	Representing	Representing
	Local empowerment	No potential	Potentially involve local	Involve local
	Potential Buyer	dislike	Very like	Very like

The second point of the evaluation method is about the production process which is expect to be able to involve local people more by putting two categories. First is about the technical process whether the product could produce by home industry or should in big manufacturer. The second is about the skill to make the product whether it require special skill or anyone can create it. In that ways the product could be make sure that potentially involve the local for the production process.

The next group question in scale is about the business potential. This part will evaluate that the product is still representing the original mask or not, so by the audience perception the next decision can be taken, if the product doesn't represent the original mask, it means that the final product could not use as a local tourism commodity product.

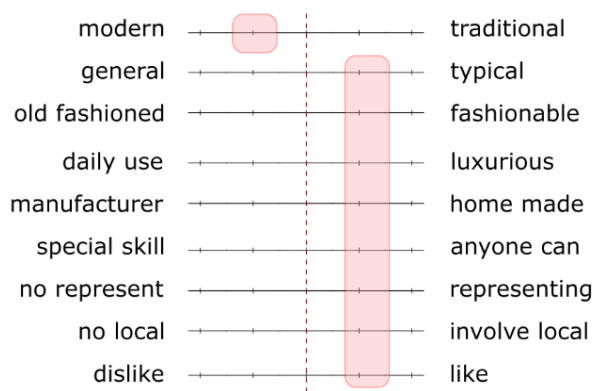


Figure 14. The expecting data result

The other thing about this part is to make sure that the audience willing to buy the product by putting the question of how much they like it, from like and want to buy, to the dislike. This will show which product is the most preference by particular segmentation and how which product has the most potential buyer. In this group of question also there is question with the scaling answer about the potential of involving local people in production. In that ways the answer expect that the product is representing original product, have a potential buyer, at the same time has a potential to involve local people as the main purpose of this research.

5.2 Participant

The participant of this questionnaire could be divided into four group of category, by gender, age, region, and field background. The group of gender are expected to be a distinguish feature of assessment of product preference by gender, so the design could be evaluate which of the product are the most preference based on gender. The group of age will distinguish the preferences of the respondent based on the age. In that ways the data will show in which age the product is most

preference. While the region could present the segmentation of which product is the most preference by local tourism or inter local tourism opportunity. The part of field background only used to assess the production process whether the production could be done by home made and how much skill require to produce each product.

The participant result of the studies shows that there is 142 from Indonesia, 88 from Asia (outside Indonesia), 24 from other country (outside Asia). The distribution participant by gender could be seen as 95 male, and 159 female. While the distribution by the age is 35 people under 20 years old, 190 people around 21-40 years old, and 29 people above 41 year old. Within all of the people the field background based could be seen as, 131 Arts and Design, 10 Culture and history, and 113 from the other background.

5.3 Expecting result

The analysis of the data will assess to see the respondent preference based on their attribute of gender, age, and region. The attribute will meet the group of question to define the criteria that would be assess at the beginning of research. From the question from each group the expected outcome could be seen in figure 15 bellow;

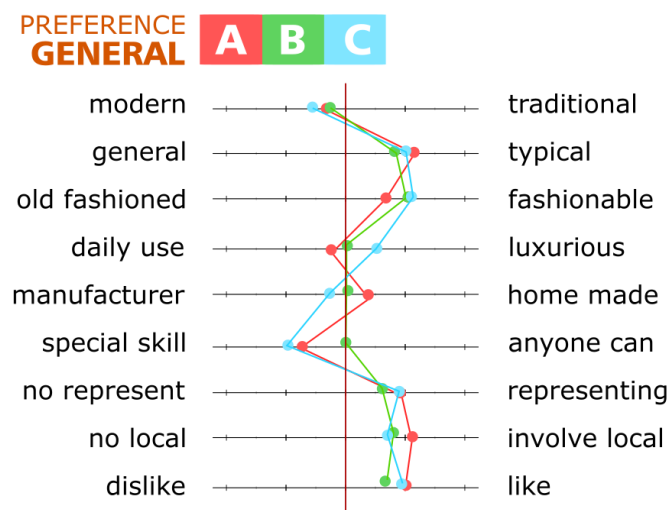


Figure 15. The data result (mean score)

From figure 15 above the data that expected comes from the analysis is tend to the right side of the scale. In previous chapter its already explain that the questionnaire will show two opposites feature with the range of 5 scale. If the respondent chose bellow 3 (tend to be in left side) its mean that the preference is on the left feature, but if the respondent show the score is above 3 means that the have a perception of the product in the right side feature which is what expected by this research. In that ways the data will analyse using SPSS with T-Test and One-way ANOVA to get the means score of each product preference based on gender, age, region, and field background of the respondent.

6. Finding

Before analyse the data and use it base on the first purpose to assess the whole process of research by its group preference of gender, age, and region, here is the general outcome of the questionnaire.

Table 3
General mean

Assessment	Q	Feature	A	B	C
Design	Q1	Modern-Traditional	2.91	3.03	2.46
Process	Q2	General-Typical	3.85	3.61	4.17
	Q3	Old Fashioned - Fashionable	3.31	3.63	3.90
	Q4	Daily Use - Luxury	2.79	2.82	3.65

Local	Q5	Manufacturer-Home made	3.11	3.00	2.35
Involvement	Q6	Special Skill-Anyone can	2.39	2.91	2.75
Business	Q7	Not Represent-Represent	3.97	3.56	3.65
Potential	Q8	Dislike-Very like	4.06	3.87	3.63
	Q9	No Idea-Know a lot	3.71	3.60	3.58

From the table above it would be easier to see the distribution of preference in each level by the figure of respondent preference to show in which scale are generally respondent express their perception for each level. The figure will help to understand properly the different and the problem finding compare with the other group product.

From the figure 15 below the data can still consider fulfil the expectation as long as it tend to pass the middle line as a neutral line from both side. The data from the figure mostly shows that it is according what it expect for product group A,B, and C which is tend to modern as a result of transforming to today looks, typical from the keyword of distinguish identity, fashionable for a aesthetic preference. All of it already fulfil the expectation of research because the preference tend to go to the right side. On the question of luxury it aims to asses the preference from all product which is suit to particular market class segmentation. That will explain why the preference is different from each other product group.

Unfortunately in the level of involving local especially for the possibility of anyone can make it, the respondent are already out of the line in the left sides, but if it compare to the other question about the potential of involving local in production, all of the respondent are agree that there is possibility in involving the local in production process. Those two fact of the result is a prof that there should be an evaluation in the design process of involving local people, because in the two previous question about the potential in produce the product as home industry which can be done by every one is not fulfil, but on the other question there is still possibility to involve the local, means that the technical study is require to make sure in which part the local can be involve.

On the other hand result for business assessment are fulfil the research expectation, which is already representing the culture as a tourism commodity, possibility of involving local and most of them are like the product which could be translate as a potential buyer.

6.1 Data result in design process

For the result focus in design process the data can be seen by focusing on the particular question about the modern looks, typical, fashionable, luxurious preference, and how much is represent the original mask as shows in the figure below.

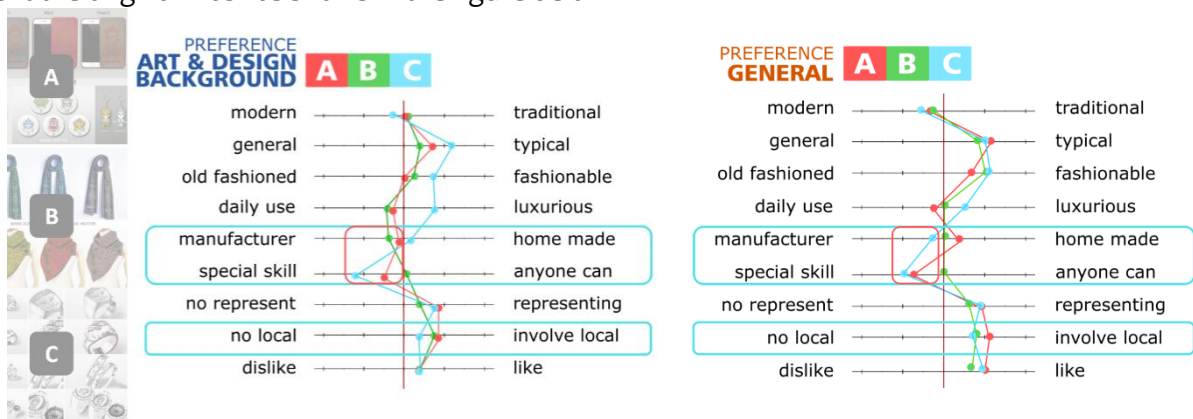


Figure 16. The data result in design process

From the figure above there is two general finding. First is that all of the group mostly already fulfil the research expectation. Event in some case like question number 1 about modernity is near to the line it can still be said that it already tend to modern preference. The second thing is about the market class segmentation also fulfil the preference which is A for daily use which is for general people, B for middle class market (which not a daily use product and tend to luxury product), and the last is product group C that tend to be a luxury product.

6.2 Data result in involving local

First of all in this level of assessment, the answer of data collect will only focus on the respondent which has a background field of arts and design. The decision are tend to do because not every respondent understand the possibility of making a product especially in this case. But for the people with the background from arts and design they already know the possibility of the technical production which is will be a critical result for this study.

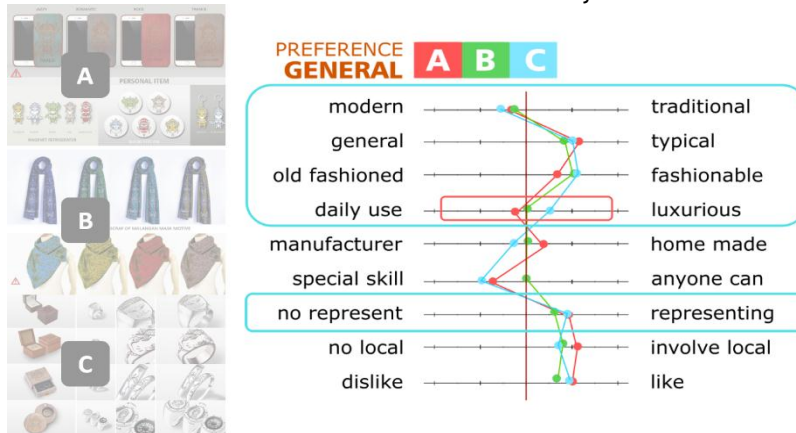


Figure 17. The data result in involving local

Its quite interesting since the main purpose of this study is encourage designer to involve the local in the design process. Unfortunately the two question define to assess the process that makes anyone can make the product with their limited resource (without manufacturer tools) are out of expectation. But to understand this result the chronological of questionnaire design are require to know what is missing.

In local involvement assessment originally assume that the product which is transform from original cultural feature should be able to produce by anyone which do not require the skill (since the present problem are not every local involve in producing mask because the do not have the skill of carving mask. The other question about manufacturing or home made are intend to know that the product could be produce in home industry, in that ways the comparation keyword was manufacturer and home made. Unfortunately the limitation of media (online questionnaire) is one of the caused that the idea from the questionnaire designer and the respondent could be a very different. Over all the result shows that most respondent especially who has a background of art and design in this case was prefer to tell that all of the product require a special skill and still need the manufacturer process as shown in the figure 17 bellow.

There is an interesting part from the data above, when the respondent preference that the production process require a special skill and need a manufacturer process which could be assume that local people are not be able to produce it, but all of the respondent are still agree that there is a possibility to involve local in the production process.

The data could be assume that the idea to involve local is widely open, but it requires skill and a manufacturer process. Or in another word the process could involve local but in the particular position which not involve a skill, or manufacturer process. In another perspective, this study argue that the data already shows the possibility in involving local people in production process, for that reason, there is another action should be taken which is a work shop training to transfer the skill, and a local government support to gives a manufacturer tools for local people. Indeed the idea to involve local people are not as simple as making a product design and ask local to involve in production. Another supporting action is strongly suggest to take in order to make the idea works.

6.3 Data result in potential business

To see the preference distribution by gender, the analyse method also use with SPSS to assess using T-test for two different independent variable which is male and female. Using SPSS the test of the data from questionnaire could be seen how significant is the result define by the how many percentage

the error was. If the error was bellow 0.05 percent it means the possibility of error is bellow than 0.05 percent and if the score shows that it is bellow than 0.001 the result could be tell as a very significant regarding the error score is very low.

Table 4
Chi square test how much they like the product by gender

Item	A1	A2	A3	A4	A5	X2	df	p
Male	58 61.7%	10 10.6%	22 23.4%	3 3.2%	1 1.1%	16.464*	4	.002
Female	58 36.5%	29 18.2%	56 35.2%	15 9.4%	1 .6%			
Total	116 45.8%	39 15.4%	78 30.8%	18 7.1%	2 .8%			

*p<0.05

The percentage from the question how much do you like the product with the option of 5 answer from I like it and want to buy until the last option express that the respondent do not have any interest of it. As shown by figure bellow most of all either male or female are mostly choose the preference of “like and want to buy” which means both has a same preference as potential buyer.

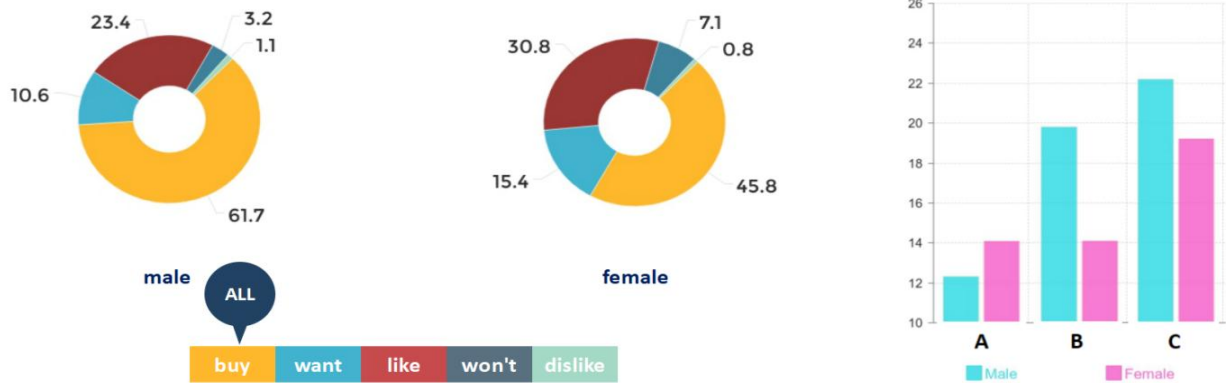


Figure 18. Product preference by gender

From table above, the figure shows that both the male and female preferences is tend to product group C which is the ring design. Basically both male and female are potential buyer since there is no significant different among them.

The respondent perception of the product by age define by the age is collect by using One-Way ANOVA test to see whether the differentiation of the age has a significant different for the product preference. The table bellow shows that there is no significant different between the age of the potential buyer which all of them are choose the answer of “like and want to buy” the product.

Table 5
Chi square test for how much they like product preference by age

item	A1	A2	A3	A4	A5	X2	df	p
<20	16 45.7%	2 5.7%	13 37.1%	4 11.4%	0 .0%	10.613	8	.225
20-40	82 43.4%	31 16.4%	60 31.7%	14 7.4%	2 1.1%			
41<	18 62.1%	6 20.7%	5 17.2%	0 .0%	0 .0%			
total	116 45.8%	39 15.4%	78 30.8%	18 7.1%	2 .8%			

From the table above the data could be present in the chart below which mostly choose the answer of “like and want to buy”, means that there is no particular focus segmentation of the product.

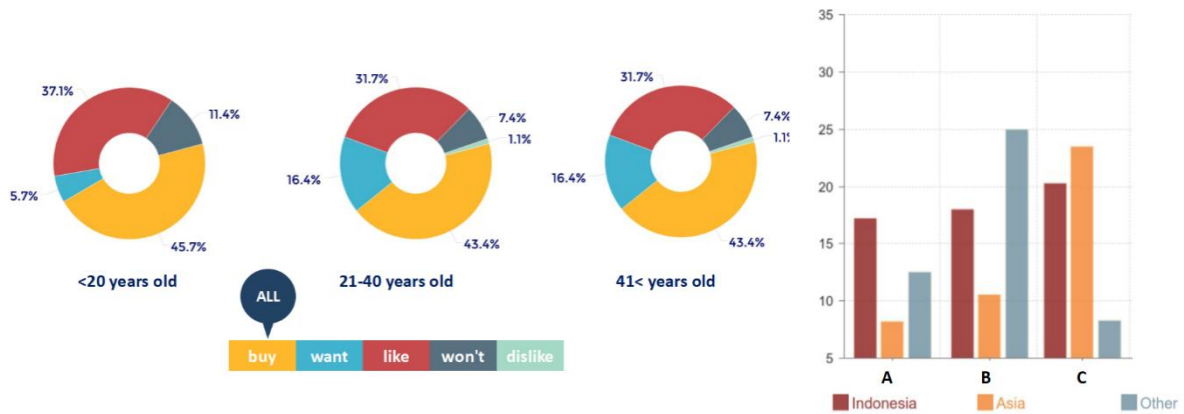


Figure 19. The product preference by age

The fact that all of the age has potential market segmentation, the next thing is to define which product is most preference by each group of age. From the right chart it can be seen that product group B is most prefer by segmentation bellow 20 years old, while for age 21-40 years old are prefer product group C, the same preference by 40< age segmentation.

One Way ANOVA also use to analyse the preference of product based on the region to define which is best for particular segmentation area. The table bellow shows that there is a potentially a buyer from the region of Indonesia and Asia, but not from the other country. In that ways the preference of the respondent has a significant different shown by the score.

Table 6
Chi square test for how much they like product preference by region

Item	A1	A2	A3	A4	A5	X2	df	p
Indo	88	16	36	1	0	56.295***	8	.000
	62.4%	11.3%	25.5%	.7%	.0%			
Asia	25	14	35	12	2			
	28.4%	15.9%	39.8%	13.6%	2.3%			
Other	3	9	7	5	0			
	12.5%	37.5%	29.2%	20.8%	.0%			
Total	116	39	78	18	2			
	45.8%	15.4%	30.8%	7.1%	.8%			

***p<0.001

The table shows that only region Indonesia has the most preference to buy the product and

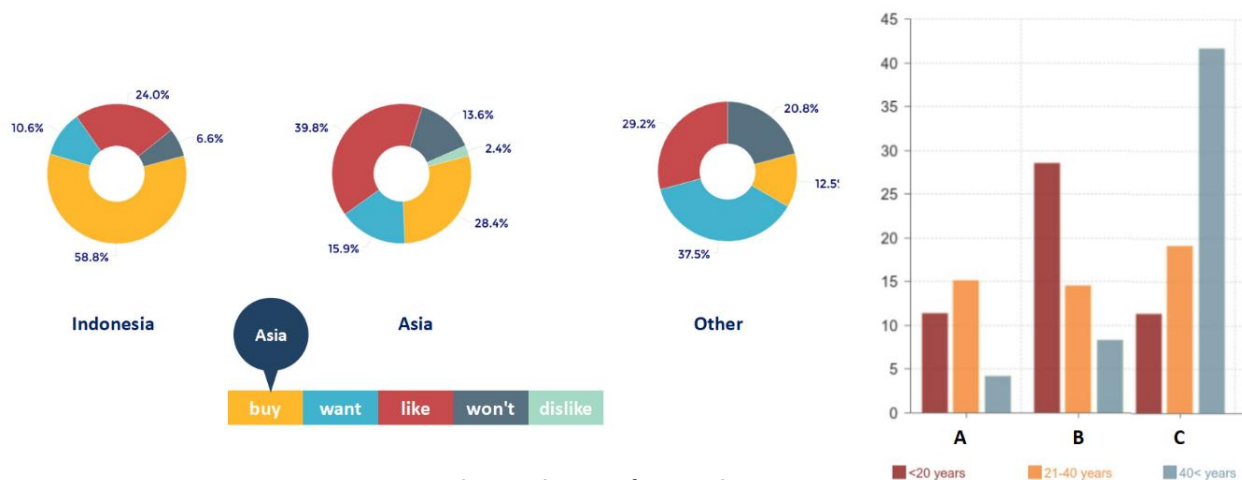


Figure 20. The product preference by region

Asia only want it event the intention to buy is the second rank, when the other country only want it but do not have any willing to spent the money in the product.

From the figure above, there is an information that the potential market segmentation only suit for Indonesia and Asia which is still as an Asian region. The next step is to define which is the most preference product by the region.

7. Conclusion

From the previous chapter it can be conclude that this study aim to preserve culture using case study of Malangan mask by transforming the feature of the mask into a design concept which use as the main idea in designing new cultural creative product are according to the idea. Instead of transforming cultural feature into new product which more adaptive in today market, the study gives emphasis in fair exploration by involving local (inheritors) in design process. In that ways the preservation expected could sustain the culture in both sides of product and actor (community), as this study argue that in order to preserve culture, a fair action should be taken both in product and the

Figure 20. The preference by region

actor because the culture is not only about the product, but also the community who live on it.

The design process of this study adapting a model to transform culture called MAP which is complete by putting "S" as social keyword which tend to make an empowerment in local people. The product which design following the model is classify into three group of product which represent low, middle, and high class segmentation.

All of the process is evaluated by designing a questionnaire to assess the design result by three main point of assessment of design process, the potential of involving local, and the business potential which deeply analyse using SPSS with two different method, T-Test and One way ANOVA as to see the preference based on gender, region, and age to define the market segmentation.

Table 7

General mean in physical level

Question Section	Q	Feature	Compare with the expectation					
			A		B		C	
Design Process	Q1	Modern-Traditional	2.91	fulfil	3.03	fulfil	2.46	fulfil
	Q2	General-Typical	3.85	fulfil	3.61	fulfil	4.17	fulfil
	Q3	Old fashion-Fashionable	3.31	fulfil	3.63	fulfil	3.90	fulfil
	Q4	Daily use-Luxury	2.79	fulfil (low)	2.82	fulfil (mid)	3.65	Fulfil (high)
Involve Local	Q5	Manufacturer-Home made	3.11	fulfil	3.00	fulfil	2.35	Not fulfil
	Q6	Special Skill-Anyone can	2.39	Not fulfil	2.91	Not fulfil	2.75	Not fulfil
Business Potential	Q7	Not Represent-Represent	3.97	fulfil	3.56	fulfil	3.65	fulfil
	Q8	No local-involve local	4.06	fulfil	3.87	fulfil	3.63	fulfil
	Q9	Dislike-Very like	3.71	fulfil	3.60	fulfil	3.58	fulfil

The result of the questionnaire could be seen in figure above which shows that mostly are already according to the main purpose, only the part of involving local. Over all this study still argue by refer the result in business potential Q8 which all of the respondent still agree that there is a potential to involve local in production process. This study argue that another action should be taken to make the idea works by conduct a training workshop to gives local a production skill and supporting manufacturer tools from local government.

The process of preserving culture by involving local is a long process. By this limited time, as mention in the earlier chapter, this research can only focus on exploration in mask transformation (Product). There is still a lot of way and direction across a study that can be collaborated to make better ways of sustainability whether from the way it used (Play) or from the way how it affects the life of its community (Place). Furthermore this research still need a further exploration in technical process of

empowering in collaboration with local government to make a link (Policy) to local tourism spot (Partnership), the business model of the product to catch the market (Promotion), the way it set up the product sharing profit (Price), and also the other relation to its future projection (People).

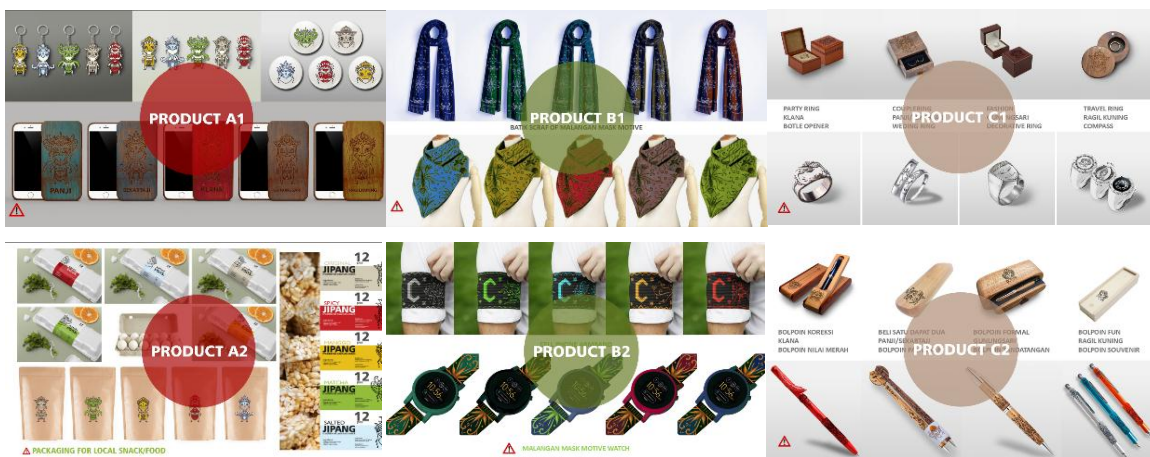
Acknowledgements

This work would not have been possible without the permission of Allah, Alhamdulillah. Also the guidance of my Professor Rungtai Lin and Po Hsien Lin who help me a lot in developing the idea to create a model for transforming traditional product into new product design. Mas Yudhit as maks collector, Ririn Budi as the origin inheritors of Malangan mask who gives me a lot of help in collecting data. Finally I would like to thank my parents, whose love, support, and pray always for me and my little brother. Most importantly, I wish to thank my loving and supportive wife and my wonderful children who provide unending inspiration.

Endnotes

(1) Product group

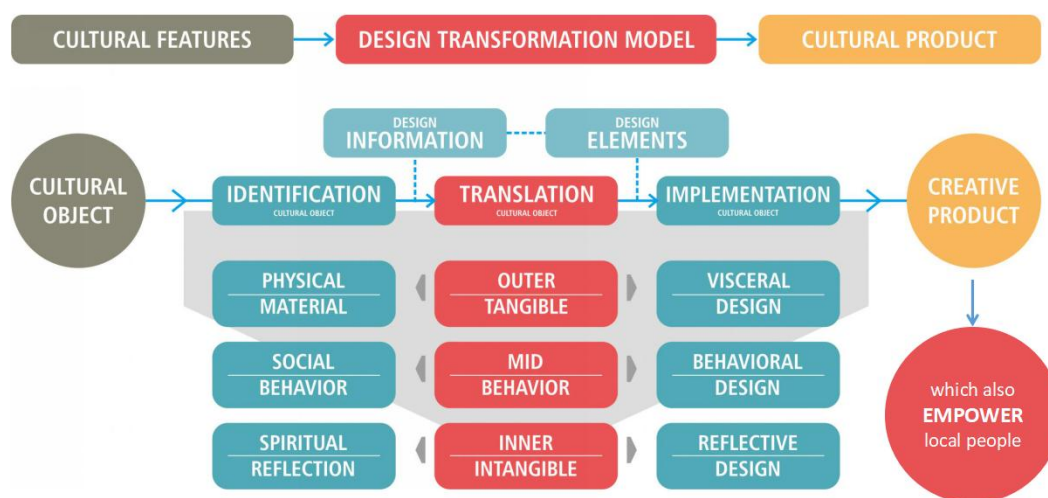
Originally in the research there is 6 product group design used in developing questionnaire;



All six product group in design process

(2) MAP-S transformation model

MAP-S model originally adapt from the model of transforming cultural feature use by Rungtai Lin and Po Hsien Lin in their research which is also the same idea from Norman by putting 3 level of product as outer, middle, and inner.



Transformation model from cultural feature

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Appendix

English, Chinese, and Indonesian version online questionnaire form

Cultural creative product of Malangan Mask

This studies aims to evaluate the process of designing derivative product of Malangan mask in order to open the business opportunity for local people to make a tourism Malangan mask village

* Required

1. Please fill your profile below

Gender *

- male
- female

Region *

- Kedungmonggo (village of Malangan mask)
- Malang city
- Indonesia
- Asian (outside of Indonesia)
- other

Age *

- under 20
- 21-40
- 41-60
- 60+

Field background *

- Art and Design
- Culture or Historical
- Other

Research limitation

In this research we only use five iconic character of Malangan mask for basic inspiration of product design to make a focus



2. In this section you will see some derivative product from Malangan mask

There is two criteria write in the right and left side of each scale. Number 1 represent you really agree to the left criteria, and number 5 means you really agree to the right criteria. Number 2 or 4 means you think agree but not to much, and number 3 means both criteria are balance or none of them inclined.

Product A1

Mask visualization to distinguish personality *



modern 1 2 3 4 5 traditional

- I just like it
- other

5. How much do you like all the product above ?

answer: *

- I like it very much and I want to buy it
- I like it verymuch but I don't want to buy it
- I just like it
- I don't like it
- I don't like it and I don't want it

6. How much do you know the mask?

answer: *

- I Know much about it
- I know little about it
- I think I saw the mask somewhere
- I am not sure
- I dont know

Thank you for your participation of this research. Your respond will help us to define the way to involve local people to get a positive impact and make the village into a tourism destination.

We expect the result could be used to explore the potency of Malangan mask visual element

SUBMIT

印尼瑪琅面具(Malangan Mask)文創商品設計研究

本研究以印尼瑪琅面具為文化元素進行衍生商品設計，期望藉由創新設計的理念，協助瑪琅在地方社區發展之地位，為地方引進觀光生計，提供一個可行模式的探索。

* Required

1. 基本資料

性別 *

- 男
- 女

居住地區 *

- Kedungmonggo (瑪琅面具村鎮)
- 瑪琅市
- 印尼
- 亞洲各國
- 其他

年齡 *

- 20以下
- 21-40
- 41-60
- 60以上

專業背景 *

- 藝術設計
- 歷史文化
- 其他

研究範圍

研究範圍

本研究進行產品設計所採用的測驗工具，係關於五個最具代表性的角色



2. 以下是本研究以瑪琅面具為文化元素，所發展之衍生商品

請針對下列八個產品提供評估意見，每個產品皆由製成兩個評估條碼，分別由左至右為：滿1代表非常贊同左側的條碼，滿5代表非常贊同右側的條碼，滿2代表贊同左側的條碼，滿4代表贊同右側的條碼，滿3代表中立。

產品A1

凸顯身分個性之面具造型 *



modern 1 2 3 4 5 traditional

- 功能
- 個性化
- 視覺上就是喜歡
- 其他

5. 你對於整體產品的喜愛程度為何?

*

- 非常喜歡，並且想要購買
- 非常喜歡，但是並不會想要購買
- 還算喜歡
- 並不喜歡
- 不喜歡，更不會想要購買

6. 你對於瑪琅面具的認識有多少?

*

- 非常熟悉
- 略有所聞
- 似曾相識
- 沒什麼印象
- 完全不清楚

感謝你熱心完成本問卷，你的寶貴意見將有助於我們更有效地為印尼瑪琅文化的傳承盡一分心力，並為在地社區村民提供產業活化的新契機。

SUBMIT

Produk Kreatif Budaya Topeng Malangan

Penelitian ini bertujuan untuk mengevaluasi proses perancangan produk turunan topeng Malangan dalam rangka penelitian yang bertujuan untuk mencari potensi pembuktian desa wisata topeng Malangan dengan melibatkan masyarakat setempat dalam menyediakan komoditas wisata

* Required

1. Mohon isi profil anda di bawah

Jenis kelamin *

- Laki-laki
- Perempuan

Daerah tinggal *

- Desa tempat Topeng malang dibuat
- Kota Malang
- Indonesia
- Asia (di luar Indonesia)
- lainnya

Usia *

- di bawah 20
- 21 - 40
- 41 - 60
- 60 <

Latar belakang *

- Seni dan Desain
- Budaya atau sejarah
- Lainnya



PANJI HIJAU BUAKSANA SEKARTAJI PUTIH FEMINIM KLANA MERAH KUAT GUNINGSARI PUTIH KSATRIA RAGIL KUNING KUNING JIWA MUDA

2. Pada bagian ini Anda akan melihat beberapa produk turunan dari topeng Malangan

Ada dua kriteria di kanan dan kiri setiap skala. Angka 1 menunjukkan bahwa Anda benar-benar setuju dengan kriteria kiri, dan angka 5 berarti Anda benar-benar setuju dengan kriteria yang tepat. Angka 2 atau 4 berarti Anda berpikir setuju tetapi tidak terlalu banyak, dan angka 3 berarti kedua kriteria seimbang atau tidak ada yang condong.

Produk A1

Visualisasi topeng untuk membedakan karakter personal *



- karena merepresentasikan kepribadian saya
- hanya suka saja
- lainnya

5. Seberapa besar Anda menyukai produk-produk tersebut?

jawab: *

- saya sangat suka dan saya ingin membelinya
- saya sangat suka tapi tidak ingin membelinya
- Saya hanya menyukainya
- saya tidak suka
- saya tidak suka dan saya tidak menginginkannya

7. Seberapa banyak anda mengetahui budaya Topeng Malangan?

jawab: *

- Saya tahu banyak tentang Topeng Malangan
- Saya tahu sedikit
- Saya pernah melihatnya
- Saya tidak yakin
- Saya tidak tahu

Terima kasih atas partisipasi Anda dalam penelitian ini.

Respons Anda akan membantu kami menentukan cara melibatkan masyarakat setempat untuk mendapatkan dampak positif dan menjadikan desa menjadi tujuan wisata.

SUBMIT