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Malay Traditional Metal Crafts in the East Coast Region of Malaysia: The Sustainability of Tangible Culture

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Abstract

This paper aims to elaborate on the elements of the Sustainability of Malay Traditional Metal Crafts in the East Coast Region of Malaysia. The traditional Malay metal crafts in Malaysia that have existed for more than 200 years began to deteriorate from time to time. It is a tangible heritage with its uniqueness and almost extinction hereditary since 1948 on the East Coast of Malaysia. Therefore, the main objective of this research was to identify the current development and the elements of developing sustainability in the Malay traditional metal crafts on the East Coast of Malaysia. Furthermore, qualitative observation and interview methods were explicitly conducted at Kelantan and Terengganu. It investigates and analyzes genuine data collection and findings in a specific field. The outcome and contribution of the paper are important for further development in relation parallel with Sustainable Design Goals, which are focused on sustainable innovation, economic growth, full and productive employment, and decent work for all communities. Furthermore, it significantly supports the economic growth of craft and creative industries among the local community and the younger generation to sustain a gloomy future as an indicator of Malaysian identity. This research will benefit the apprentices and young generation, which is inheritance the new approach of metal craft design through innovation and creativity development.

Keywords: Cultural Sustainability, Malay Traditional Crafts, Metal Crafts, Tangible Culture.

Introduction

According to the World Commission on Environment and Development, sustainability has become a buzzword. This development meets the needs of the present without compromising the ability of future generations to meet their demand. Furthermore, UNESCO ensures that the role of culture is recognized through most of the Sustainable Development Goals (SDGs). Therefore, it is vital to sustain the creative industries by referring the sustainability with social and culture. This paper focuses on Malay traditional silverware relevant to social, economic, cultural, and environmental.

Foreign traders brought metal crafts to the East Coast Region of the Malay Peninsula in the 17th Century for their intricate and delicate designs that consisted of silver and brass as the primary material. The craftsmanship produced repousse chasing, filigree work, and nielloware. Traditional Malay metal crafts is a local craft product with high artistic value and traditional craftsmanship that involves creativity and elaborate artistry: Regalia, proper equipment, functional silverware, exclusive gifts, and many more. In the current situation, silver and brassware have become one of the dying heritages that have represented the culture of Malay for so long. According to Maliki Yusof, a silversmithing artisan at Kg. Morak, Kelantan, there is no longer a future generation to continue and be interested in producing traditional Malay silverware. Only three to four artisans are still practising silversmithing in Kg. Morak, Kelantan. This study investigates the current development of Malay traditional silverware and the significant issues in sustaining local economic growth. In addition, this study outlines the findings related to the development of Malay traditional silverware with Sustainable Design Goals by the UN Agenda 2030.

As referred to by the Ministry of Tourism, Arts, and Culture Malaysia, (Shukri, 2021), brassware is a craft field that has its uniqueness and is almost extinct. The brassware industry has been inherited since 1948 in Terengganu during her visit to creative endeavours in Kg. Ladang, Kuala Terengganu. Furthermore, traditional craftsmanship is almost extinct because the young generation is not interested in continuing this valuable conventional legacy. Many factors have contributed to this situation; firstly, globalization has introduced many foreign cultures, leading the younger generation to lose interest in their cultural heritage (Mohamad, 2011).

Literature Review

Malay Traditional Crafts

Scholars have determined that a distinct concept of beauty governed the local crafts, but this did not limit the creativity of craftsmen or artisans who followed their intuition. Instead, combined with years of practice, their intimate knowledge of their craft materials allowed them to fully manifest the shapes of nature and shape the material into a distinct style and form (Kamarudin, 2020). Traditional craft is the application of abilities and knowledge based on materials to relatively small-scale output. The traditional craft is work done by hand or with fundamental tools to create functional and adorning products.

According to Act 222-Malaysian Handicraft Development Corporation Act 1979, "Handicraft Product" means any artistic product with cultural or traditional appeal and results from a process that relies solely on or partially on manual skills. The preservation of traditional crafts has covered the direction for the sustainability of the Malay cultural heritage in the region through the continuity of craft industries with local and fresh inspiration. Furthermore, to sustain the existence of traditional craftsmanship, the government created Kraftangan Malaysia. Kraftangan Malaysia was established in 1979 (PKKM, 2010) to provide adequate assistance to craft entrepreneurs throughout Malaysia. Furthermore, it was also to develop new ideas for their advancement and apply new techniques to supplement traditional methods. It has also continuously conducted several development programs to drive local craft entrepreneurs towards better achievement and competitiveness.

Metal Crafts

The East Coast Region of Malaysia involves three states: Kelantan, Terengganu, Pahang, and some parts of Johor. It is formed to focus on the region's socioeconomic and industrial development. For more than 200 years, traditional Malay crafts have existed in the Malay community. The states of Kelantan and Terengganu were the first trading activities and fabricated metalware, especially brass and silverware, through the straits of Malacca.

In the past, the artisans from Kelantan produced silverware inspired by local elements that reflect artistic values. Furthermore, the viability of artisans became necessary when the King supported and empowered the local artisans as royal artisans. As a result, the artisan fabricates crafts and arts in the palace and produces for royal needs (Shariff, 2010). According to recent studies by Oxford Languages (2021), metalware or metal craft is a product, merchandise, and craft produced from a specific combination of metals. There are two types of silverware which are functional and non-functional. Generally, most silverware is functional items for dining, cooking, storage, ceremonial, cultural customs, precious royal objects, and many more. For non-functional items, primarily, it is used for decorative items and symbolic objects. (Kassim,2008). Many silverware artisans are old, and some of them have passed away. This is at the alarming stage whereby the present Malay artisans need to sustain and build their interest in silverware production. Nowadays, cultural heritage seems critical because the young generation is less interested and needs help to develop high practical skills. In this situation, the dying heritage should be preserved and sustained (Shariff, 2010).

The silverware industries in Kelantan

Kelantan silver is valued for its sophisticated craftsmanship and design. Most surface product designs are floral motifs representing the silversmith's Kelantan identity. Since there is no other proof of the Malay states producing silver crafts, the silver craft industry can be seen as the true Kelantan legacy. However, youths started to leave Kelantan in search of better prospects in the 1970s due to the state's economic stagnation. However, the local economy's instabilities push Kelantanese to move to other regions of Malaysia, oblivious to the value of preserving their rich cultural heritage. Kelantan is not exempt from the general trend of industrialization and urbanization. Influences from the global movement are inevitable, given the ease with which information can be accessed worldwide via the Internet. Along with the surge of imported consumer goods, consumers' perspectives and values regarding local items have changed.

The Brassware industries in Terengganu

One of the cottage industries that thrived in the 1950s was brassware. The majority of the goods are kitchenware and ceremonial objects. Casting technology during production means the brassware is not renowned for its craftsmanship. However, the products have an indigenous individuality in their form, precise details, and ornamentation. Brassware fabrication is very different from other older crafts in how it is done. These technologies are referred to as reductive since making them requires the elimination of material. Instead, a form is created by pouring the raw material into a liquid condition before it solidifies once more. The raw material does not determine the shape or form of the metal. Instead, the brassware was designed and made through the casting technique as desired. A positive idea in metal must be removed from the material and transformed into a negative version in a stone or clay mould to make a mould (Appleby & Srensen, 2018). This is intriguing because it

suggests that cognitive abstraction was addressed simultaneously with the advancement of melting and casting abilities.

The Role of Malaysian Handicraft Corporate Development

Crafts made in Malaysia, or Kraftangan Under the authority of the *Perbadanan Kemajuan Kraftangan Malaysia Act of 1979*, Malaysia was founded in 1973 as the Malaysian Handicraft Board and eventually became known as the Malaysian Handicraft Development Corporation. The Corporation is the top craft agency in Malaysia and is a division of the Ministry of Culture, Arts, and Heritage. It is essential and crucial to developing the handicraft industry, encouraging artisans to utilize contemporary methods of production, and promoting the marketing and export of handcrafted products. Furthermore, a master craftsman is knowledgeable and expert in a particular field. Therefore, the Malaysian government honours this award and the title of the best craftsman through the Malaysian Handicraft Development Corporation. This award has its criteria and standard requirement for the best person in that field in the current period. Below is the list of master craftsman known as 'Adiguru Kraf' in metal crafts in Malaysia from 1987 till current.

Table 1

List of National Master Craftsmen and Master Craftsmen Based on Metal Craft Fields in Malaysia

No.	State	Status	Name	Craft field	Date Appointed
1	Terengganu	Adiguru Kraf	Allahyarham Encik Wan Abdullah Bin Wan Muda	Coppersmith	1987
2	Kelantan	Adiguru Kraf	Allahyarham Tuan Haji Ibrahim Bin Haji Ismail	Silversmith	1987
3	Kelantan	Tokoh Kraf Negara/Adiguru Logam	Allahyarham Tuan Haji Ab. Manan bin Haji Yakub	Silversmith	2008
4	Terengganu	Adiguru Kraf	Salleh bin Mohd	Coppersmith	2008
5	Kelantan	Adiguru Kraf	Md Ghani bin Mat	Metal	2011
6	Kelantan	Adiguru Kraf	Mohamed @ Mohd Daud bin Yusoff	Silversmith	2011

According to Malaysian Handicraft Corporation Development data, many companies or entrepreneurs are involved in metal crafts industries. However, from the comprehensive list, small numbers still practice the silver and brassware industry in the East Coast region of Malaysia.

Table 2

List of existing metal crafts entrepreneurs in the East Coast Region of Malaysia

State			
Kelantan		Terengganu	
No.	Company Name	No.	Company Name
1	DY Silvercraft	1	Purrfection Pavos Enterprise
2	KB Permai	2	Salleh Mohd Enterprise
3	Smira Silvercraft	3	SA Unique Craft
4	Mohd Ariffin Bin Wook	4	Tembaga de Craft
5	RIZ Zilver & Gold Craft	5	Arman M-Craft
6	KB Craft & Trading	6	Wanisma Craft & Trading

Table 3

Statistical data on metal crafts entrepreneurs in the East Coast Region of Malaysia

Zone	State	Metalware			Weapon	Jewellery	Others	Total
		Silver	Brass	Pewter				
East Coast	Kelantan	6	0	0	11	13	2	32
	Terengganu	0	6	0	3	12	0	21
	Pahang	0	0	0	11	2	0	13
Total		6	6	0	25	27	2	66

The five categories Malaysian handicrafts fall into are earthenware, forest-based, metals, textiles, and diverse materials (MHDC, 2014). In addition, the Malaysian Handicraft Development Corporation annually declares craft sales and the number of registered entrepreneurs.

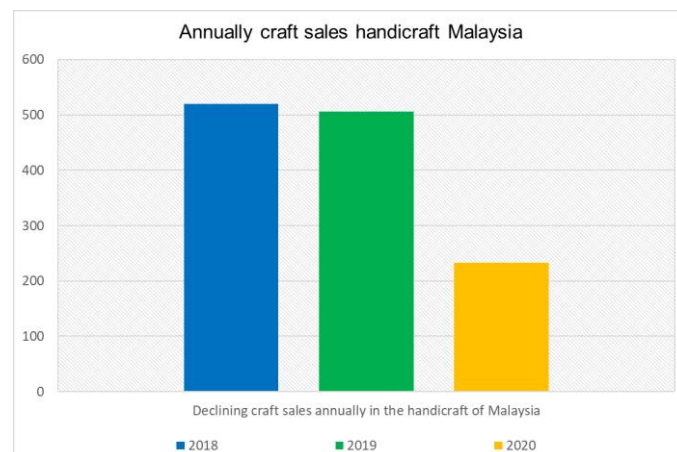


Figure 1: Annually Sales Report Malaysian Handicraft Development Corporation 2018 – 2020



Figure 2: Number of Entrepreneurs registered under the Malaysian Handicraft Development Corporation 2020-2021

Presently, the Malaysian Handicraft Development Corporation introduced a mobile app, 'CraftOnTheGo', which can be downloaded for free. This initiative provides digital services to the community to improve information related to craft entrepreneurs throughout Malaysia.

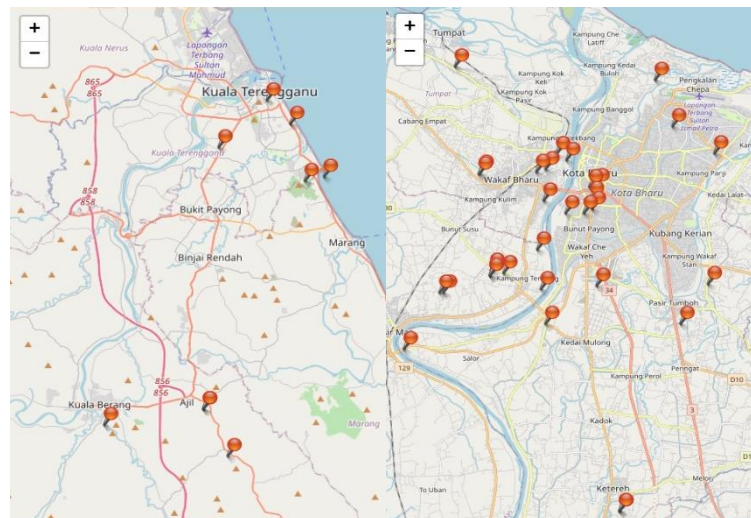


Figure 3: The allocation of metal craft entrepreneurs currently active through the 'CrafOnTheGo' mobile apps in the East Coast Region of Malaysia.

Craftsmen and Material Development

Today, in addition to including designers, scientists, and engineers, who might be better viewed as craft technologists, or craft scientists, we should expand the definition of crafters to include individuals who work with, shape, and comprehend materials (Shorter, 2015). In addition to thinking through their material, artisans frequently think about the material they employ. Because human thought processes are mainly metaphorical (Lakoff & Johnson, 1980; McGilchrist, 2010; Brück, 2004), the materials offer a rich source of metaphors through which we comprehend ourselves and the world. It follows the primary tools and technology a

civilization uses to influence its socio-economic growth and how its members think. These are the modern artisans experimenting with new materials. They are not only producing. They are exploring various points of view in developing new material. Items made entirely by hand, with the aid of hand tools or even mechanical means, if the direct physical labour of the artist remains the most significant component of the finished product, are considered artisanal products. These are manufactured indefinitely and with raw components sourced from sustainable resources. The uniqueness of artisanal goods comes from their distinguishing qualities, which can be practical, beautiful, artistic, creative, culturally significant, ornamental, functional, traditional, and symbolic in terms of religion and society.

Cultural Sustainability

According to Geertz, culture is "a system of inherited notions articulated in symbolic forms through which men communicate, perpetuate, and develop their knowledge of and attitudes toward life." (Geertz, 2000, p. 89). The concept of 'sustainability in traditional crafts and craftsmanship is strongly connected to environmental, cultural, and economic concerns (Isar, 2004). The vital aspect of sustainability is in our life; Stanley (2012) explains that there are four pillars related to sustainability. They are sustainable in the environment, economy, society, and culture. Radically, sustainability is defined as achieving a culture's environmental, economic, social, and values without risking future generations' abilities.

Furthermore, sustainability needs to emphasize the community's values to include discussions about cultural sustainability in ways that do not damage our ecosystem, environment, and social well-being. Finally, the strategies of sustainability need to be inclusive and holistic. A combination of policies and designs covering all four sustainability pillars is required to make this world better. The concept of 'sustainability with traditional crafts and craftsmanship is strongly connected to environmental, cultural, and economic concerns (Isar, 2004). Besides the importance of sustainability, traditional Malay silverware is part of creative industries with lots of value that must be revived and preserved for future generations.

According to the 17 Sustainable Development Goals (SDGs) implemented by the United Nations in 2015, which built on the principle of "leaving no one behind," the new Agenda emphasizes a holistic approach to achieve sustainable development for all. Therefore, sustainable development, or sustainability, is now pervasive and multidimensional (Ross, 2009). Therefore, the creative industry is viewed as having potential with a high impact on economic achievement. Malaysia strives to achieve this through the creative industry by promoting the Sustainable Design Goal: sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all communities.

In addition, sustainable development thinking should dovetail to economically strengthen the value and viability of craft practice. Nowadays, technological development has changed individual and community expression and approaches. The feel and sense of touch in arts and crafts and tangible and intangible heritage have been affected. (Nasuruddin, 2017). Undoubtedly, traditional metalware has a long, unbroken history and the potential for vigorous new flowering. Unfortunately, many craft designs are not only of great value but also very unusual, even unique in certain respects. They are the evolutionary link between the art of present-day Malaysia and centuries of tradition.

Tangible Cultural Heritage

The federal government passed the National Heritage Act of 2005. The act aims to address matters connected to protecting and preserving the nation's natural heritage, tangible and intangible cultural heritage, undersea cultural heritage, and treasure trove. For example, traditional crafts are a network of people who practice them locally, the actual locations where they are made, and the ever-evolving craft items. It was published in the Gazette on 31 December 2005, after receiving Royal Assent on 30 December 2005. On 1 March 2006, the National Heritage Act of 2005 went into force, and it is anticipated that this will inspire the local populace to protect and maintain the heritage's values. The heritage discourse around craft effectively continues this sentiment of loss. After all, craft knowledge needs to be "safeguarded" (UNESCO, 2018). However, framing craft as an intangible heritage has a particular shortcoming: it must define craft categorically and acknowledge craft as a heuristic device.

The UNESCO Convention for the Safeguarding of Intangible Cultural Heritage promoted the relationship between intangible cultural heritage and sustainable development. It acknowledged its role in fostering community identity and social cohesion (UNESCO, 2003), the 2005 Convention on the Protection and Promotion of the Diversity of Cultural Expressions established participation in both the cultural and economic facets of development as a fundamental right of the people. Additionally, as traditional crafts are a component of collaborative practice and live culture, the issue of authenticity requires a distinct perspective. Given that the intangible cultural legacy is constantly replicated, the term "authenticity" as applied to tangible cultural property does not have the same relevance," the Yamato Declaration states (UNESCO, 2004). Furthermore, the continuity and change inherent to culture will also be present in the standard transmission of information and skills. Therefore, "whether a tradition has preserved the essence established via continuity in time, and what is the rate of change and the boundaries bearable without losing its value" must be carefully considered.

A unique form of cultural expression, contemporary, functional, or creative crafts that draw inspiration from heritage reflects a capital of self-confidence that is particularly important in developing nations. Reiterating the importance of manual labour is especially crucial for many industrialized nations, where excessive industrial standardization frequently compromises people's quality of life. UNESCO is the only UN's specialized organization with a dedicated crafts program. UNESCO has been working for many years to create well-balanced, coherent, and concerted action by combining training, production, and promotional activities and encouraging cooperation between the concerned national institutions and regional, international, governmental, and non-governmental organizations.

Method

Introduction

This research investigates the Malay traditional metal crafts industries, specifically Kelantan and Terengganu, conducted through observation and open-ended interviews. As the referred figure below, the East Coast Region of Malaysia, highlighted in purple, consists of three states: Kelantan, Pahang, and Terengganu. However, Pahang is excluded because there is no existence, mainly in the metal crafts industry. In addition, this study is supported by previous studies in scholarly journals, books, documents, and reports from relevant sources, local government agencies, newspapers, and other reliable website sources.

This study focuses only on empathize mode from the design thinking method to understand the situation of the practitioner of metal crafts industries. An open-ended interview supported observation to collect the data regarding previous and current development in the metal crafts industry in Kg. Morak, Kelantan and Wanisma Craft & Trading Company, Kg. Ladang, Kuala Terengganu. Subsequently, the data were analyzed using thematic analysis to identify and report the repeating coding themes gained from the interview session. Below is the chart showing the whole process of research involved.

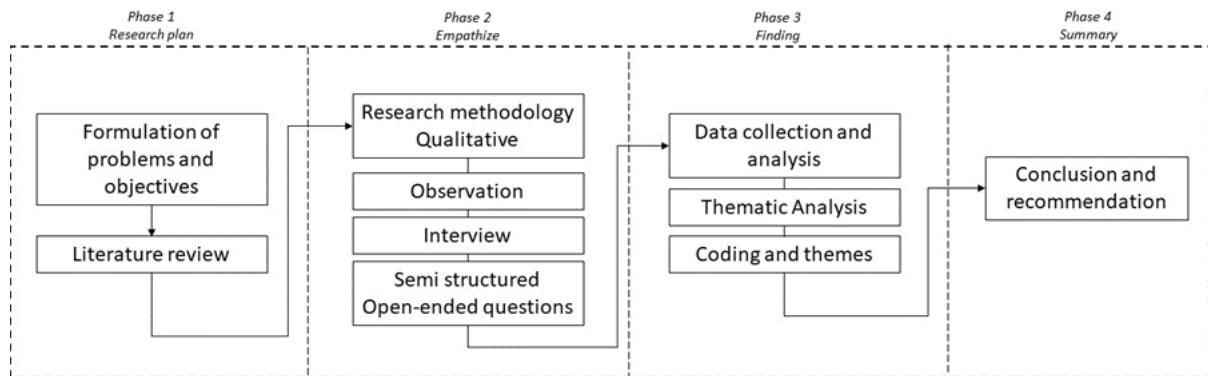


Figure 4: The qualitative research method process

Kg. Morak, Wakaf Bharu, Kelantan

Kg. Morak, Palekbang, 16040 Wakaf Bharu, Kelantan, located in north-eastern Malaysia, with a total land area of 14,922 square kilometres. This area is known as one of the most culturally rich silverware industries.

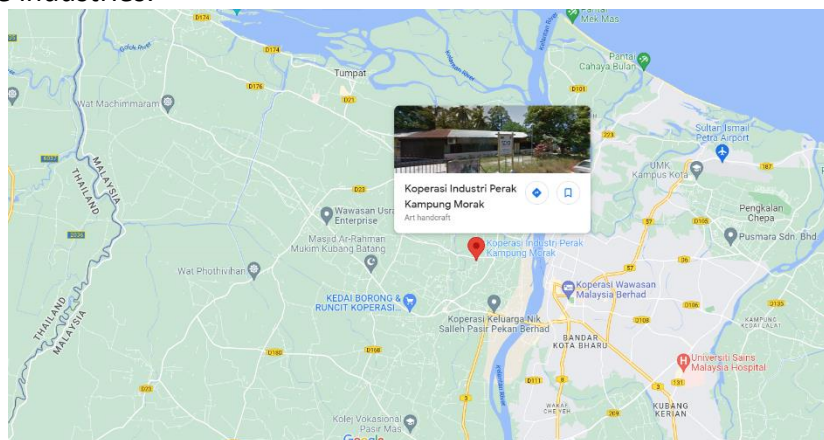


Figure 5: Geographical of Kg. Morak, Wakaf Bharu, Kelantan

Originally from the kingdom's history, the customs of arts and crafts were related to the 15th-century Pattani kingdom and the ancient 2nd-century Langkasuka kingdom with ties to the Cambodian and Siamese Kingdoms. Malay silverware at Kg. Morak is known for its intricate and delicate designs. Several Malay artisans are still working on producing metalware and fine jewellery in Kg. Morak. Many years ago, Kg. Morak is the centre that produces metal craft products and a metalsmithing learning centre for local or foreign. Nevertheless, recently, the sector has been dying and forgotten.

Wanisma Craft & Trading Company, Kg. Ladang

The second research location was conducted at Wanisma Craft & Trading Company, Kg. Ladang, Kuala Terengganu. Wanisma Craft is one of the brass-based products businesses.

Brassware company is an identity for the state of Iman and tourist attractions within and outside the country to see the artwork of local people who are rich with works hand-crafted. The brass products, a mix named Wanisma Brass, are of five kinds of metals according to the prescribed percentage.

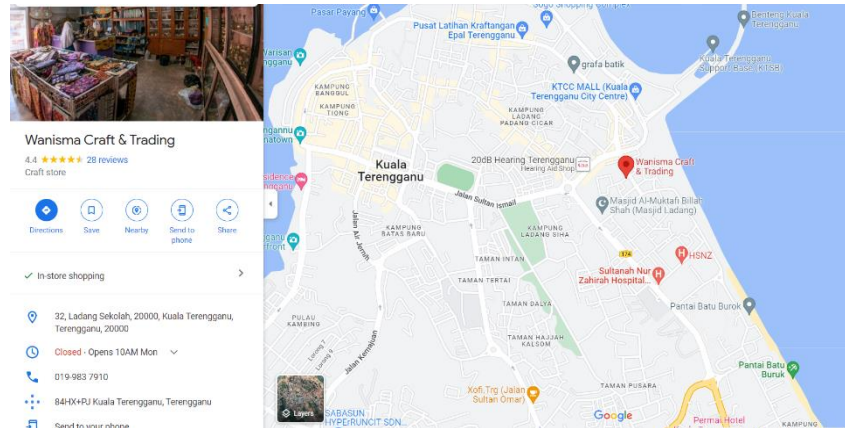


Figure 6: Geographical of Wanisma Craft and Trading, Kg. Ladang, Kuala Terengganu

Wanisma Craft, also known as Kiluan Tembaga, actively produced brassware 200 years ago, inherited from one generation to the current generation. The owner, Mr Wan Mahadi Wan Ahmad, has been an entrepreneur in producing brassware for 30 years. Sadly, this craft is almost dying due to many issues and problems.

Results and Discussion

The Current Development of Silverware

The findings of this study are conducted through an observation site visit at the Industrial Cooperatives Silverware Kg. Morak, Kelantan, initiated by the Ministry of Tourism, Arts, and Culture in the early 2000s, was abandoned ten years ago. After economic issues, politics, and the loss of artisans, the industry closed permanently. Most existing artisans created separate individual workshops or mini spaces at home to continue working. Two local artisans currently remain active in Kg. Morak, Kelantan are involved in the interview session, Maliki Bin Yusof, also known as Liki, 53; and Muhammad Bin Sulaiman, also known as Pak Demad, 68. Below is the existing artisan now practising silversmithing in Kg. Morak, Kelantan.



Figure 7: The artisans that are still actively working at Kg. Morak, Kelantan

Table 4

Name list of existing silver artisans in Kg. Morak, Kelantan

No.	Name	Nickname	Age
1.	Maliki Bin Yusof	Liki	53
2.	Mohd Ariffin Bin Wook	Pok Wi	72
3.	Muhammad Bin Sulaiman	Pok Demad	68
4.	Suhaimi Bin Yusof	Unknown	65

The artisans were still receiving one-off projects from local clients, which were very limited. Due to the Covid-19 pandemic, most of their jobs were lost, and they only received three to four projects or orders per year. Besides that, no younger generation is interested in continuing the legacy of silverware craft practice in Kg. Morak, Kelantan. Most of them need help to sustain themselves as artisans and lose their interest in this field. This industry needs time and lots of practice to be experienced enough to produce it. The design and artisans of metalware need a sense of touch with the feeling of looking through aesthetic elements.



Figure 8: The details and intricate craftsmanship of metal crafts design

The data collected from an interview session were organized through thematic analysis to find the main theme in the previous and current development. Below shows that economic development, initiative execution, and design development are the main theme concerns due to this silverware industry in Kg. Morak, Kelantan.

Table 5

Analysis of coding subtheme to the main theme

Description	Sub-theme	Main theme
Low budget and profit	Financial management	Economic development
Debt issues		
Equality and equity		
Precious and fine product	Production efficiency	
Intricate craft work		
Experienced artisan		
Wasted facilities		
Dying profession		
Less demand	Linkages and Collaboration	
Government and individual dependent		
Insufficiency technology		

Unknown talent		Design development
Inheritance young adults and lose interest.		
Well known industry	Utilize marketing strategies and demand	
Produce for important events		
Dying profession	Reviving the dying profession	
Government and individual dependent	Motivational support	
Less proactive		
Impatient among the young generation	Preservation and Awareness	
Independent talent and skills		
Flora and fauna motif and form	Nature-inspired	
Ergonomic and practicality		
The design aesthetic and precious	Niche design	
Religious and cultural beliefs		
Practice-base		
Precious metal	Precious craft industry	
Handmade		

Before the thematic coding analysis, the data from the open-ended interview were analyzed and summarized to achieve the main point of the current development of silverware industries at Kg. Morak, Wakaf Bharu, Kelantan.

Table 6

The summary of the interview outcome

Cluster	Interview Summary
Financial and Costing	Mediators charge a low amount
	Low labour cost but mediator gain more.
	Projects were divided into mainly 3 groups, head craftsmen, workers, material, and outsourced service.
	<i>Koperasi Perusahaan Kg Morak</i> is being closed because of inconsistently paying utility bills and not doing maintenance.
Design development	Mostly vegetal and floral motifs are known as <i>bunga jawa</i> and <i>bunga raya</i> .
	The motif depends on the form of product suitability.
	Living figures such as elephants, birds and tigers were mainly used in weapon making.
	The design reflects the environment metaphor due to local beliefs and religion.
Craftsman behaviour	Four senior craftsmen were currently active.
	Young craftsmen were interested more in goldsmithing.
	Local craftsmen rely on projects from influencers and inside persons working with the government.
	Local craftsmen were not interested to register legal business companies.
	Local craftsmen depend on mediators or dealers to gain projects.
	Local craftsmen usually train and inherit the skill and practices of the

	<p>young local community.</p> <p>The remaining youngest practising as craftsmen are average early 50 years old.</p> <p>Not interested in joining any expo or festival on silversmithing.</p> <p>Local artisans are interested in working by themselves with their time management rather than working under the company that offered an estimation of 4 to 5 thousand monthly as a craftsman.</p> <p>Certain junior employees are working as a craftsman but join and left the job in a group decision.</p> <p>Only 1 to 2 junior employees sustain for 2 years as local craftsmen but change direction as goldsmiths.</p> <p>They practice and learn by themselves to improve the quality of the fine fabrication process.</p>
Material development	<p>The mixture of silver and copper for durability and suitability in the fabrication process.</p> <p>Experts in handling material silver, gold, and copper.</p> <p>Using hand tools and equipment to fabricate the metalwork.</p>
Local support and collaboration	<p><i>Kraftangan</i> and <i>Mariwasa</i> company mainly contribute to providing jobs or projects.</p> <p>Local craftsmen often face problems in dealing with middlemen.</p> <p>Any client should contact and deal with <i>Kraftangan</i> officially before initiating to local craftsman.</p> <p>The middleman does not sincere in revealing the truth of the project's cost and offers a minimum amount to local craftsmen.</p> <p>Recently 2 to 3 years they did not receive any support from <i>Kraftangan</i> for any development.</p> <p>Outsourced contact limited because of permanently shut down business passed away and discontinued. Local Chinese provide machinery service on metal.</p> <p>Previously, the person in charge of machining in <i>Koperasi Perusahaan Kg Morak</i> charge the local artisan with a certain amount to use the subsidies machine.</p> <p>Any fabrication using a machine will be outsourced to another company or craftsman to produce it as a service.</p> <p>5 years back, the government conduct an incubator program with the local young generation in the local community of <i>Kg Morak</i> to practice silversmithing with allowance but failed to sustain.</p> <p>There is still no <i>adiguru</i> assigned by the government to this specific field.</p>
Production and outcome	<p>Estimation of around 4 to 5 projects received in a year with minimum profit.</p> <p><i>Nobat</i>, <i>Cokmar</i>, and other items are examples of the outcome being produced.</p> <p>Small projects such as engraving and repousse on bangles as the main jobs to sustain their income.</p> <p>Workshop established a backyard with an improper environment and a lack of equipment.</p>

	Practising embarks work through their expertise such as piercing, forming, engraving, repousse and soldering.
	They produced items with long timelines and duration because of handmade, but the quality detail and fine.
	Machine abandoned unused at <i>Koperasi Perusahaan Kg. Morak</i> .
	The production was slow because of a lack of experienced craftsmen. Some of them unable to work because of sickness and some of them were passed away.
Market demand	15 years ago, <i>Koperasi Perusahaan Kg. Morak</i> was well developed with high demand.
	Projects and job will gain depends on the client's demand and needs on any occasion such as royal ceremonies, parliamentary, or exclusive events.
	There is a local Chinese businessman interested in doing business with the local craftsman but came out just requesting the local craftsman to teach their junior employees to practise silversmithing.

The Current Development of Brassware

The findings at Wanisma Craft & Trading Company, Kg. Ladang, Kuala Terengganu, and the owner Mr Wan Mahadi Wan Ahmad emphasize the uniqueness of the primary technique for making brassware: sand casting. The design model was produced using castable wax and cast-on brass alloy into the mould. Primarily the design outcome is minimalist and has fewer motifs. This brassware was mainly strong, long-lasting, and assembled using solder and dismantle joining.

The brassware produced significantly showed the great value of local Malay heritage to represent the environmental and social elements. There are many types of brassware, such as candlestands, decorative items, betel nut sets, kettles, equipment for weddings and ceremonial, and many more. However, mostly the design is inspired by nature, such as floral, movement of nature, and Islamic elements.





Figure 10: Wanisma Craft and Trading Workshop

According to Mr Wan Mahadi, brassware marketability and production is still in high demand, especially for the local market. However, it is slowly declining and probably ending the business legacy because of financial issues due to pandemics, none of the young generation practising as craftsmen, and political issues in craft industries in Malaysia.



Figure 11: Wanisma Craft and Trading Brassware Products

The data collected below are the four main themes coded through thematic analysis on the current development of the brassware industry in Kg. Ladang, Kuala Terengganu. The data shows that economic development, the industrial revolution, and cultural design development are the main theme concerns in the field.

Table 7

Analysis of coding subtheme to the main theme

Description	Sub-theme	Main theme
Government subsidies	Financial management	Economic development
Low budget and profit		
High expenditure		
Dying profession	Economic contribution	
Education improvement		
Government support	Local support and collaboration	
Collaborative partner		
Incubator program		

Dying art preservation		
Well known industry	Market demand	
Extinction craft industry		
Technology enhancement	Production and technology development	Industrial Revolution
Practice-based		
Mass production		
Niche industry		
Traditional Malay inspired	Design influence	Cultural design development
Minimalist design		

Furthermore, the data from the open-ended interview were analyzed and summarized to achieve the main point of the current development of brassware with Mr Wan Mahadi Wan Ahmad at Kg. Ladang, Kuala Terengganu.

Table 8

The summary of the interview outcome

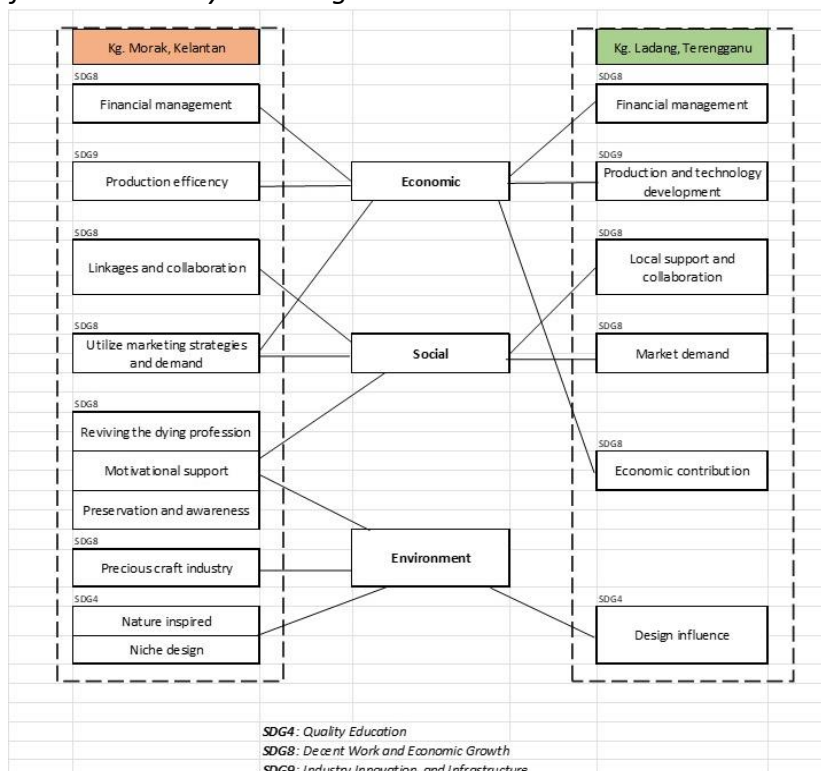
Financial and Costing	Unable to persist with constructing new buildings and facilities because of financial shortage.
	Plan to clear the sale of the remaining brassware and shut down the business permanently.
	Suggest helping entrepreneurs by giving an allowance or financial relief to sustain
	High-cost material supply and equipment to maintain.
Design influence	Simple and minimalist designs are more attractive rather than complex.
	The consumer is often interested in typical Malay design to preserve the Malay traditional elements.
Economic contribution	The brassware industry is one of the dying sectors in Malaysia.
	The decline of the metalware industry will also deteriorate education and economic growth.
	The metalware industry needs a young generation to continue the dying profession.
	Education should practice real industry learning to sustain the industry in the future.
Production and technology development	This sector needs an improvement in design and fabrication technology.
	Government support is needed to rebuild the dying industry by referring to current trends and technology.
	The brassware industry in Terengganu has been a hereditary business for almost 200 years.
	Brassware-making needs experience, skills, and practice to produce it.
	Casting brassware is more demanding rather than other metalware.
	Brassware production is possible to improve because it is cheaper than goldsmithing.
It prefers to involve sand casting as the main production line for brassware	

	making.
Local support and collaboration	Less than ten entrepreneurs remain currently doing the metalware industry in Terengganu.
	The local practitioner needs support and guidance to maintain the brass industry.
	MOTAC minister visits to observe and discuss problems faced by entrepreneurs.
	Disagreement on government support because of improperly bonded agreement.
	The incubator program collaboration between local entrepreneurs, <i>Kraftangan</i> , and young talent was conducted long ago.
	Collaborate with other practitioners and conduct incubator programs under <i>Kraftangan</i> and Ministry of Tourism, Arts and Culture.
	Executives from the ministry are aware of declining brassware industry growth in Terengganu but remain static.
Market demand	Brassware demand is more excellent than the offer from the local and international community.
	Well-known hereditary business globally but getting to fade recently.

The Overall Analysis of Thematic Analysis

As referred to in the figure below, a mapping of sub and main theme coding of thematic analysis synchronization with Sustainable Design Goals (SDG). The SDG's elements were significantly related to SDG4, SDG8, and SDG9, as in Figure 12 legend.

Table 9
The mapping of thematic analysis coding with SDG



Conclusions

In conclusion, the silver and brassware crafts industry are facing a bleak future with no implementation of the proper measure. It should be concerned that the sector will one day face extinction. In this context, innovation and sustainability play a vital role in design and product development. Tradition should be integral to the innovation exercise in the product's design aspect, function, and manufacturing process. To ensure the metal craft industry is highly competitive with other craft forms, thus successfully making its way to appeal to a larger and more sophisticated consumer market. The thematic analysis shows that the three elements of economic development, initiative execution, and design development are the main priority to be taken seriously to sustain the industry for future growth.

As for recommendations, the implementation of programs focuses on local community development and socioeconomic improvement to stay committed to uplifting the local craft products. Raising awareness among young talent must be a top priority for the government. Following that, it is essential to create activities such as workshops, contests, public talks, and heritage expeditions for the young generation. Thus, a series of collaboration meetings such as a symposium, workshop, or conference that involved various backgrounds, especially entrepreneurs, artisans, NGOs, government agencies, and universities. However, looking at it positively, digitalized commercialization should integrate with the metal craft's unique products and be exposed to the local and global market. Therefore, with a larger market, it will be possible for metal crafts goods to persist and support the economy and local community.

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