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Remembering the Past in the Present World: Cultural Preservation, Innovation and Challenges of Brunei's Traditional Handicrafts in the Contemporary World (A Study on Rural Longhouses in Brunei Darussalam)

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ABSTRACT

Traditional handicraft industry, a relic of ancient times, is still a surviving industry in today's contemporary world. While traditional handicraft industry remains as an integral economic backbone for the world's rural populations, studies on this industry has been predominantly focussed on the macro level of cultural preservation efforts such as technological interventions, innovation strategies, policies and regulations. This study begs to differ; it will delve deeper on the cultural preservation efforts on a micro level (from the entrepreneurs and artisans' perspectives) and the innovation of traditional handicraft industry using plastic materials and new tools which have been largely neglected in the academic body. This study further examines the insights and experiences of the artisans, simultaneously inquiring on the challenges and uncover the opportunities and support they seek to evolve their craft in a rapidly changing world. Through an in-depth analysis of four longhouses in Brunei Darussalam, this paper strives to provide a comprehensive outlook on the current state and multifaceted dynamics of traditional handicraft industry in Brunei Darussalam, a predominantly neglected context in the academic literature.

1. Introduction

Situated in the northwest of Borneo Island, Brunei Darussalam is a wealthy nation with cultural roots tracing back to the ancient Malay world, originating from the Malay Archipelago; an area spanning from mainland Southeast Asia to Australia. The rich culture of Brunei has been shaped by the Malay civilization and is notably influenced by four major historical periods: animism, Hinduism, Islam and Western influences [1].

Today, Brunei has emerged as a rapidly growing economy in Southeast Asia, ranking third in the production of oil and gas in the region [2]. Islam has become deeply ingrained into the nation's culture, serving as the nation's way of life and official religion. Despite the ongoing modernization, Brunei continues to uphold its traditional practices and cultural heritage, especially in its cuisine and

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traditional activities such as weaving of textile and handicraft products which carry social and national significance. The rural communities, who are living in remote Bruneian longhouses and villages, are the custodians of these traditions, ensuring the survival of this heritage industry.

Handicraft is a vital component of a nation's identity; it shapes our current understanding of the early stages of civilisation. An art that is ancient, yet informs us on how far we have come today as an emerging nation in the face of globalisation. Traditional handicraft products persist in modern times, and continue to play a significant role in income generation for longhouses population in Brunei Darussalam.

Brunei's weaving techniques, albeit present for as long as time could tell, have been subjected to innovation and modernization. Many industrialised and developing countries are still relying on handicraft industry as the cornerstone of their economy, making research on the development of handicraft industry as MSMEs remains relevant, necessary, and significant in today's digital and global world [3].

Therefore, this paper aims to balance these contrasting views on the past versus present by exploring on the innovative practices of Brunei's traditional handicraft products, its cultural preservation practices, the challenges, and opportunities faced by the handicraft entrepreneurs and the support they require.

2. Literature Review

Brunei's weaving tradition, once a leisure activity among our ancestors, has evolved into a communal and social practice which eventually celebrated as a traditional art form [4]. Despite facing the threat of extinction, it has also emerged as a valuable industry for rural workers, serving as their economic backbone and providing various employment opportunities, even during the COVID-19 pandemic [3]. The demand for cultural products for traditional events in the Southeast Asian region and the role of cultural tourism are crucial in the survival of this industry [5].

Research on handicraft products has seen significant development in recent years, from national strategies, policies, innovation, cultural preservation, challenges, opportunities, digital marketing techniques. Recent studies have highlighted the role of innovation and digital technologies as pivotal support for the traditional handicraft industry, where digital transformation and innovation management foster an innovative culture to help entrepreneurs preserve cultural values and navigate the complex challenges posed by globalization [3].

Yet, cultural preservation efforts of traditional handicraft products (especially on micro-level of preservation which refers to the preservation efforts made by the artisans themselves), the nature of its innovation, the complex challenges, opportunities, and support needed by the artisans on grassroots level, especially on Bruneian context remain largely overlooked.

2.1 Cultural Preservation of Traditional Handicraft Products

2.1.1 Overview of the literature on cultural preservation of traditional handicraft products

Traditional handicraft products are not only historically significant but also embody cultural identity beyond their practical uses. Past studies have suggested integrating craft-making into formal education to build youth capacity and foster national identity [6-8]. Recent innovations include using 3D virtual interactive platforms in Luchesia, Tuscany, Italy [9] and tangible user interfaced in museums for cultural preservation [10]. Knowledge management and knowledge engineering [11] methodology, which is prevalent in the industrial world, is further introduced to the world of arts and crafts to develop interactive multimedia systems via craft memory to record the know-how and

retain valuable knowledge of traditional handicraft-making in Morocco. Web-based information systems are also investigated to access cultural heritage resources in the case of traditional woven fabrics from Thailand [12]. Theories on cultural tourism to preserve traditional handicrafts [13] have also been explored.

Holden [14] discusses cultural ecology concepts such as ‘sustainability’, ‘precautionary principles’ and ‘intergenerational equities’ as fresh ways to view culture. Prior research suggests that preservation is crucial to safeguard the capacity of future generations to access cultural resources and meet their cultural needs where practical and expert skills in traditional craftsmanship are investigated within family businesses or master-apprenticeship to preserve traditional handicrafts in Chinese contexts [15]. This is the only study found on a micro-level of traditional handicraft preservation (ie. Preservation efforts that are done by the artisans and entrepreneurs). Brown *et al.*, [16] introduced an interpretative model of cultural sustainability through traditional craft, where opportunities to support traditional crafts through innovative processes while maintaining their embedded intergenerational know-how is crucial in preserving material culture. Recent research has also combined the use of AI with traditional handicraft products [17].

2.1.2 Cultural preservation on brunei’s traditional handicraft products

In 1975, Brunei has launched its Traditional Arts and Handicraft Center to ensure the preservation of Brunei’s traditional handicrafts. The center is a hub for courses and skills trainings on Brunei’s traditional handwork skills such as weaving, plaiting, brasswork, silverwork and traditional head-gear making. However, technological development in preserving traditional handicrafts remain under-investigated, with efforts towards sustaining its preservation remain in the books, galleries or websites with minimum technological intervention. While development of methods towards preserving cultural heritage using technological intervention has been done globally, this review is crucial in supporting the proposal of safeguarding Brunei’s traditional handicrafts [4].

2.1.3 Implications

Despite the development of literature in cultural preservation of traditional handicrafts, the academic body lacks sufficient data as many traditional craft activities are informal with lack of statistical or numerical data to support policies to revive or promote this sector [8]. UNESCO reports on similar traditional handicraft activities within the same country operating in silos from one another is also another challenge, as this hinders network activities and production of goods on a larger scale [18].

Hence, while the development of literature above has mentioned the conventional and innovative ways to preserve traditional handicraft products, it has largely assumed a macro perspective of cultural preservation (government intervention, policies, and regulations). Thus, this research is aimed to investigate cultural preservation on a micro, grassroots level, the preservation efforts done by the craftsmen and entrepreneurs themselves rather than focusing on the macro level of preservation (such as national strategies, policies, and regulations). A micro perspective ensures a nuanced and deeper understanding of the intergenerational cultural preservation mechanisms. In this paper, it will be investigated specific to Brunei context where localised study on the method of cultural preservation remains neglected.

2.2 Innovation of Traditional Handicraft Products

The call to innovate a traditional industry such as the traditional handicraft products have been continuously encouraged to serve the global sustainable development agenda. Sustaining such industry to maintain traditional cultural values is important as it has created income and employment generation for many rural families despite the world has moved on to be heavily mechanised [8].

Innovation is an imperative move for the modern-day, contemporary businesses to survive and maintain its competitiveness in the market [19-21] where technology can be used to increase creativity and productivity of handicraft production, such as 3D technology which could visualise the handicrafts in virtual 3D dimension which could be open for pre-orders, to cost-saving in engaging with customers' demands and time-efficiencies in production.

However, innovation is not usually welcomed, especially in a traditional handicraft industry which holds heritage values. Yang *et al.*, [8] argues that innovation will wipe off traditional characteristics of handicraft products, a loss of traditional knowledge and skills, consumer rejection of innovative products, risks of losing authenticity of traditional products, risks of increasing unemployment due to adoption of technology. In the case of the traditional handicraft industry, it is quintessential to balance the act of innovation with cultural traditions [21].

In this study, the focus is on the nature of innovation of traditional handicraft products, its research and design process and the general comparison of contemporary versus traditional ways of business and crafting practices in the industry.

2.3 Challenges in the Traditional Handicraft Industry

Yadav *et al.*, [3] mentioned the challenges faced by the handicraft industries are such that women are now more educated and left the traditional industries, lack of support of the artisans and lack of infrastructural and government support (such as handicraft development centre) where institutions are operating in silos, which hinders the development of this industry further.

Meng [22] argues the artisans are typically producing labor-intensive, handmade items at a lower market price to seize market share which reflects poor branding of traditional handicraft products. Furthermore, the lack of successors in traditional crafts has drawn critical notice amongst nations where the economic status of artisans is no longer enticing for the new generation to pursue a career in traditional craft making. Prior study has also suggested that handicraft making remains a secondary economic activity for most families in developing economies, where artisans are also engaged in other occupations thus employment statistics on such informal industry are most likely to be biased downwards, with no reliable published statistics on it [18].

Issues on human resources in the traditional handicraft industry are powerless to improve product innovation, barriers to implement and execute digital marketing which leads to loss of income, high prices and limited availability of raw materials, especially due to climatic fluctuations, with long distance traveling to acquire the supplies to ensure competitive performance of SMEs [23-25]. Furthermore, the existence of middlemen trying to exploit the low economic, educational, and social backgrounds of the artisans [24] made the whole supply chain of traditional handicraft products more vulnerable today.

2.4 Research Significance

Despite the promise of enormous potential and growth of the handicraft industry globally, artisans on the grassroot levels hardly benefit from this. There are also no texts to document the traditional weaving techniques [5] lack of awareness of supporting actors in the ecosystems,

challenges of stakeholder collaborations and coordinations to support the growth of handicraft industry continue to prevail, thus stifling the growth of this sacred heritage industry [24].

The theories or models in the literature review tend to be location-specific and not universal, thus sample size does not represent the global heritage industry, where it could be the built-upon in the case of Brunei. Furthermore, many industrialised and emerging nations today are still relying on handicraft industry as their economic backbone, thus research on the development of handicraft industry as MSMEs remains relevant, necessary and significant in today's digital and global world [3].

Yet, there is a lack of empirical data to support the value of traditional handicrafts [8,13] especially on data which is obtained from the rural areas. More importantly, the study of Brunei's traditional handicraft has experienced lack of visibility in the global academic body, which is a significant contribution of this research.

4. Methodology

4.1 Research Design

The research pursues a qualitative research design with a total of 4 participants from the four targeted long houses based in Brunei Darussalam. The research aims to explore the cultural preservation and innovation of the traditional handicraft industry in an in-depth manner using semi-structured interviews and literature reviews, which allows a comprehensive exploration on the intricate relationships on cultural preservation and innovation in this context.

4.2 Sampling Method

Sampling method to recruit the participants are non-probability, purposive sampling where the participants are selected based on their involvement as traditional handicraft entrepreneurs in Brunei Darussalam. The long houses are in the rural areas of two districts: Belait and Temburong; chosen based on their current production and active commercialisation of traditional handicraft items.

4.3 Data Collection

Data is collected via semi-structured interviews on-site and each interview lasts between 45-60 minutes. The participants agreed to be voice-recorded during the interviews.

4.4 Data Analysis

The transcription of the interviews is recorded and transcribed manually in Google Document. An induction process is adopted via an open coding process to generate first order codes, categories, and sub-categories (cultural preservation, innovation and adaptation, challenges and opportunities and institutional support) in Google Sheet based on the data extracted from the transcripts.

5. Results

This section illustrates the findings in a form of charts from the manual coding and thematic analysis on the interview transcripts. It is divided into three subsections: cultural heritage preservation strategies, innovation of Brunei's traditional handicraft industry, the challenges faced

by the artisans and the opportunities they would like to explore further as well as the support they need to sustain and develop this industry.

5.1 Cultural Heritage (Weaving) And Its Preservation Strategies

5.1.1 Intergenerational knowledge transfer

Weaving activities presents social bonding between family members, usually between a mother and daughter or between in-laws. Therefore, this activity offers an exchange of intergenerational weaving skills and knowledge between family members; where underlying cultural preservation is present among the artisans in the longhouses. In this study, figure 1 shows all four participants learnt to weave through their mothers and their elders in the longhouses.

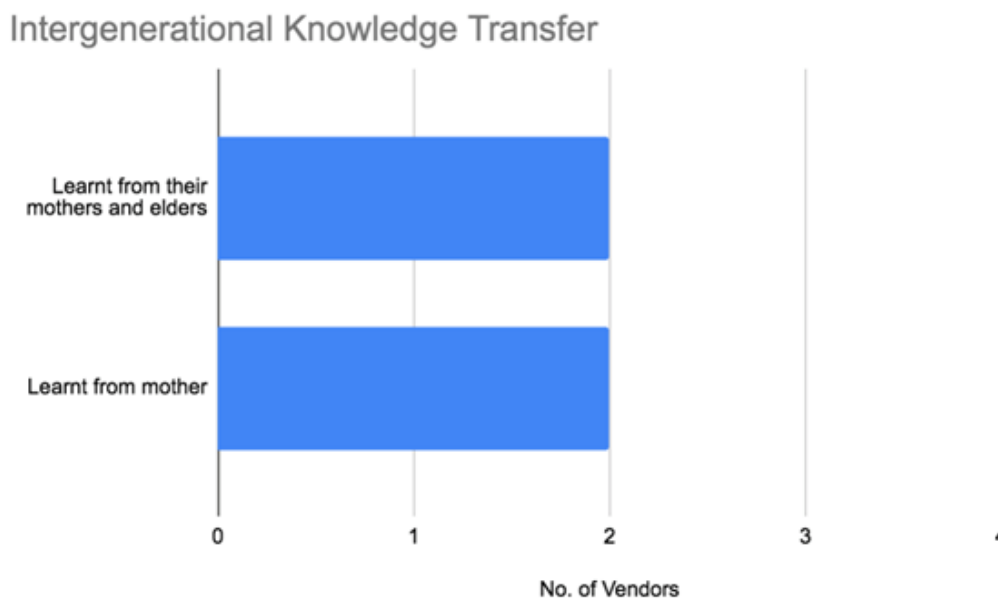


Fig. 1. A bar chart illustrating the intergenerational knowledge transfer from the elders to younger generation in weaving activities

"I learnt this from my mother during the pandemic. It was really a challenging art to learn. She ended up falling sick for two weeks after training me to weave because I just couldn't get it (laugh)."

"I learnt this from my mother-in-law, who is also a weaver."

5.1.2 Historical continuity, techniques, and adaptation

The elder artisans, in return, learnt this tradition from their elders as well.

"We did not have school, and even if we do, we didn't finish (school). So, we weave with our elders: moms and aunties in the long house."

Figure 2 shows the weaving techniques of traditional handicraft products have also withstood the test of time, and it has been sacredly practised by this community from one generation to the next and do not change despite the materials used have also been adapted to include contemporary materials such as plastic strips, additional to the natural bamboo, rattans or bamban (bamboo) material.



Fig. 2. Plastic strips

5.1.3 Implications

The transfer of weaving skills between one generation to the next is a cornerstone of cultural preservation within the artisan community. It is a process beyond technical transfer- it is a social and emotional exchange which fosters familial bond between the artisans. The data reveals that intergenerational bonding requires patience and deep emotional and social connections between family members, ensuring its historical continuity and adaptation into modern, contemporary customer profiles. The social and cultural significance of weaving in a longhouse setting fosters further community support and presence, especially with the inclusion of younger generation in this process thus evolving the weaving activity itself into a meaningful and sentimental value to the contemporary society, thereby ensuring sustainable outlook on the industry into the future.

5.2 Innovation

5.2.1 The evolution of inspiration and design

The industry has evolved from the times of their ancestors which is largely influenced by the access of technology such as the internet (Figure 3). For the research and design stage, modern artisans have been using Google and Pinterest as their source of inspiration, marking a departure from traditional sources of inspirations such as flowers and animal designs. This integration has further reflected a broader trend in digital intervention into the crafting processes, enabling artisans to access a wider array of ideas and new techniques.

Meanwhile, the older artisans from the previous generation still draw inspirations from flowers and animals such as butterflies' patterns.

"We love looking into Google, Youtube and Pinterest to see new designs. But our mothers or aunties (the older generation often have their own design in mind or those being taught by their ancestors. They usually look at floral, plant or animal patterns such as butterflies for inspiration."

This dual approach to design inspiration presents the coexistence of traditional and modern influences within the industry. While the older generation maintains a connection to historical and cultural motifs, the younger generation embraces opportunities offered by digital platforms.

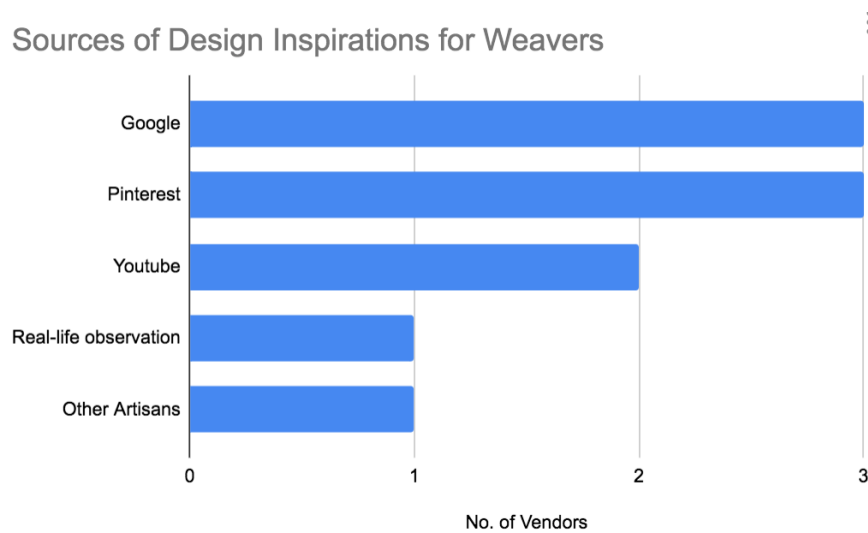


Fig. 3. Sources of design inspiration and design for modern-day weavers

5.2.2 Innovation in materials and tools

The most prominent innovation in this old-age industry is in the material used for crafting as shown in Figure 4. Nowadays, plastic strips are more commonly used to produce handicraft items which are mostly fashion statement products such as bags and purses for modern, contemporary women. This change is driven by the practical advantages of plastic strips, such as lower cost, faster crafting time and greater availability in supplies compared to natural materials such as bamboo, rattan or *bamban* (a type of bamboo) plants.

“Nowadays, we use plastic strips more than the natural materials. They are cheap, easy to get and takes less time to craft compared to natural materials.”

However, three out of four artisans are still actively producing handicrafts made from natural resources materials such as bamboo, rattan and bamban plants (which are often used by the elders) but these natural materials are woven to produce baskets and interior decoration items (mats, traditional organisers and hats) as seen in Figure 5 instead of fashion statement items which are regularly produced for handbags or purses (Figure 6). Plastic strips are cheaper, and faster to make than natural materials which are labor-intensive and time-consuming to process, along with its seasonal availability thus increases the prices of the finished products, which makes traditional handicraft items made from natural materials lack of market affordability.

“It is hard to get the bamboo or rattan materials, unlike before. Nowadays, we even need license to go into the forest. Once, there was a forest ranger who caught us, and luckily for us, due to our ignorance, he just issued a warning. Usually, it will take us hours in the jungle just to get the natural materials, let alone to process those materials.”

Another participant notes:

“The raw materials such as bamban plant, bamboo or rattan have its own seasonality. It cannot be harvested all year round, making it scarce and valuable. Thus, pricing of those products cannot be the same as those made from plastic materials.”

The shift in materials used has also necessitated the development of new weaving tools used for weaving plastic materials as shown in Figure 7. Previously, sharpening knives as shown in figure 8 were used to process the natural materials for weaving. Nowadays, artisans have developed their own tools to creatively cut, sharpen and manipulate the PVC materials to produce fashion statement pieces. This reflects the industry’s adaptability to new materials and techniques to survive in the modern, contemporary market.

Innovation in Materials Used

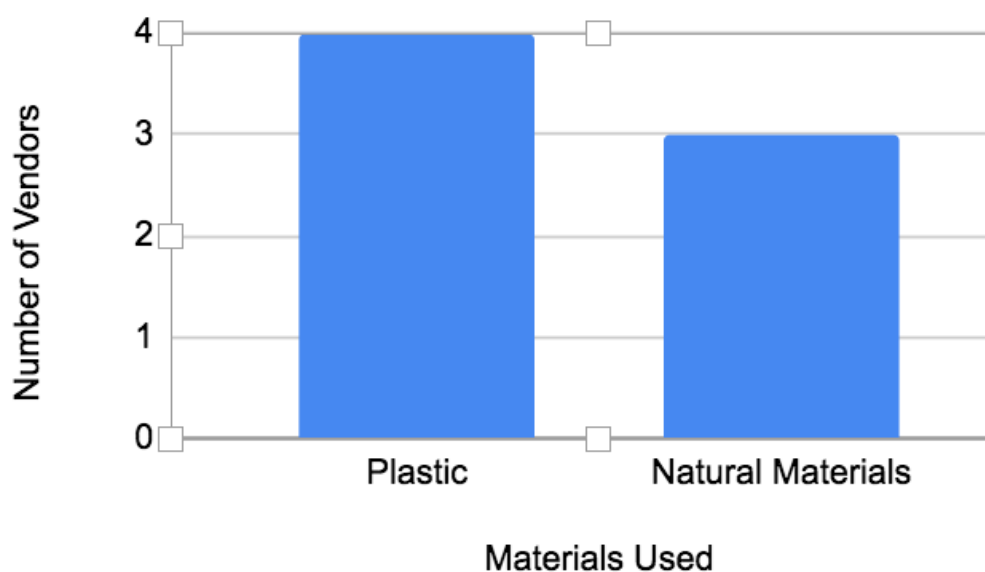


Fig. 4. A bar chart illustrating the number of participants and the type of materials they use to weave traditional handicrafts



Fig. 5. Handicraft products from natural materials



Fig. 6. Handcraft products from plastic strips



Fig. 7. New tool for plastic strips



Fig. 8. Sharpening Knives for Natural Materials

5.2.3 Balancing tradition and innovation

Interestingly, innovation of designs and materials used is not always welcomed in the traditional handcraft industry. This is particularly evident, especially on products such as handbags and purses.

One participant notes:

“I try not to make too much changes in the way these bags are designed, unlike any other artisans. Because it is important to preserve the woven handicraft products just the way they are.”

However, this does not preclude customization and personalization. On another extreme, one participant welcomed innovation of design by adding printed details of desired or requested pictures by the customers (Figure 9). Interestingly, all the artisans interviewed are highly accommodating to customers’ preferences and custom designs in their service offerings, striking a balance between tradition and innovation, ensuring the industry remains relevant while respecting cultural heritage.

A breakthrough finding is the contrast between the artisans’ attitudes towards innovation in design and materials used and their experiences on business development training. Three out of four artisans with business development training opportunities provided by the authorities have a more positive attitude towards innovation of their products, especially on the designs and patterns of their woven bags compared to one artisan with no business development training as shown in Figure 10 and Figure 11.



Fig. 9. Customised printed woven handbags by customers

Attitudes Toward Innovation

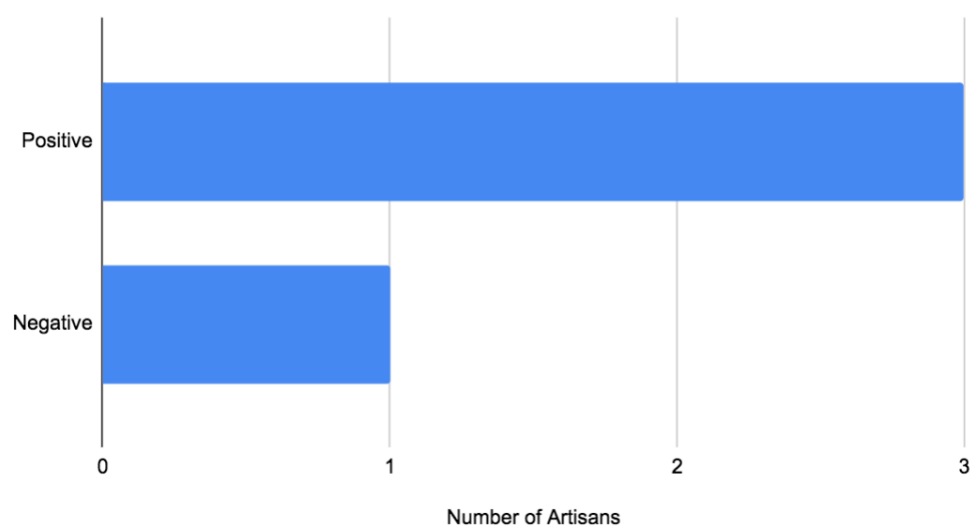


Fig. 10. A bar chart illustrating the artisans’ attitudes toward innovation

Research Participant	Business Development Training	Attitudes Toward Innovation
Mendaram	Yes	Present
Tanjung Bungar	Yes	Present
Sukang	Yes	Present
Melilas	No	Not Present

Fig. 11. A table on the relationship between the participants' business development training experiences and their attitudes toward innovation

5.2.4 The role of internet in modern crafting

The internet plays a crucial role within the modern crafting processes of Brunei's traditional handicrafts, offering access to a wealth of design ideas, new techniques and inspirations. Three out of four artisans are tech-savvy, and willing to start with Google search, Youtube and Pinterest to look for design inspirations and ideas, even when their elders are still drawing inspirations which are deeply rooted in nature (such as flowers and butterflies' prints) as their design inspirations (see previous Figure 3):

"We always look for ideas on Youtube, you can see so many new techniques to weave from our neighbouring countries such as Thailand and Vietnam."

Another participant notes:

"I usually look at Pinterest, and I will always get notification in the app when there are new design ideas on my feed."

These digital platforms facilitate the exchange of knowledge and techniques across borders, contributing to the evolution and diversification of the industry.

5.3 Challenges and Opportunities

5.3.1 Customer behaviors and bulk demand

Customer behaviors, bulk demand, and Post Covid sales are the top three challenges faced by the artisans as shown in Figure 12. Majority of the participants are always pressured to receive bulk orders for events such as wedding or corporate events with tight deadlines. Other challenges include third party (middlemen) resellers who do not make the full payment for the products they 'helped' to display, vulnerable price increases from the suppliers and unjustified product prices where the artisans believe they have priced their products too low for the efforts they have invested in.

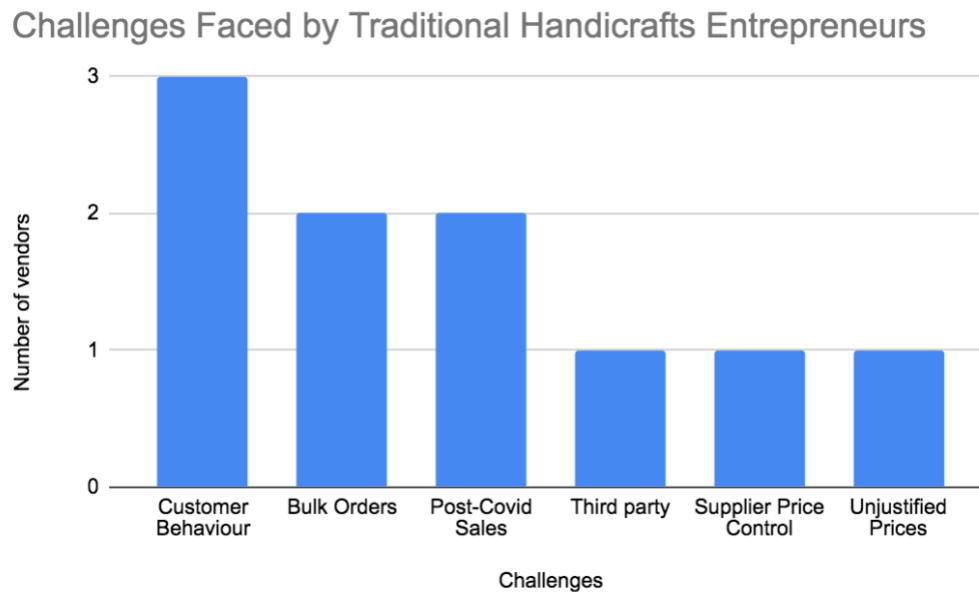


Fig. 12. A bar chart on the challenges faced by traditional handicraft entrepreneurs

5.3.2 Post-COVID sales challenges

The COVID-19 pandemic has significantly impacted the sales and market dynamics of the traditional handicraft industry. The closure of physical markets and borders to neighbouring countries during the pandemic has allowed the artisans to exploit the opportunities from the booming inbound tourism activities. However, the scenario has changed during the post-pandemic era when borders and travels are made open and possible again. Now, artisans are struggling to adapt to the changes in consumer behavior and facing difficulty in new ways to reach their customers.

5.3.3 Opportunities for growth and development

When asked about the opportunities they would like to pursue, it is a rather dead-end inquiry where three out of four artisans are pessimistic on the future, with three out of four artisans are unable to foresee if there are any opportunities they would like to exploit in this industry in the future as shown in Figure 13.

However, one participant notes that product display opportunities, fair payment of their products (especially by the third-party resellers or middlemen) and next generation empowerment would be the opportunities she would like to explore.

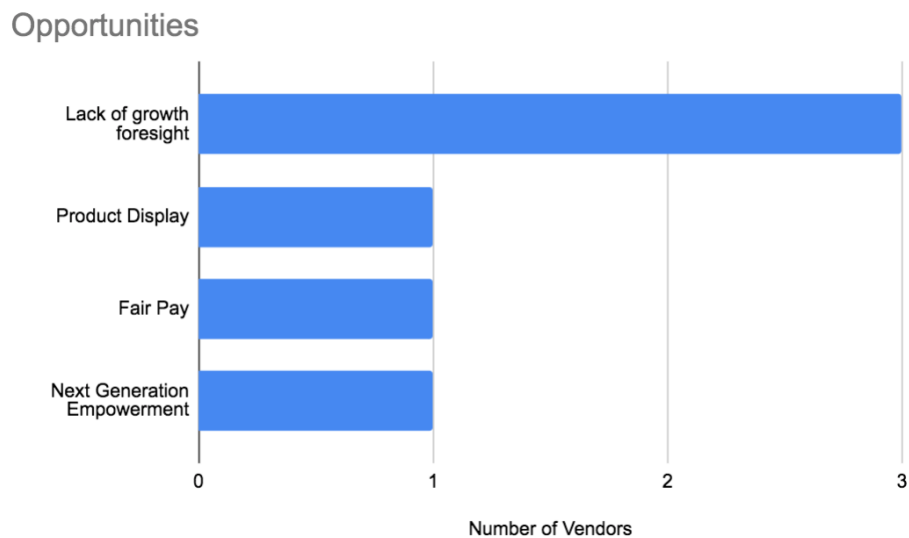


Fig. 13. A bar chart on opportunities the entrepreneurs would like to pursue

5.3.4 Government support and market access

The participants agree that more government support is essential for the traditional handicraft industry in Brunei as shown in Figure 14. All the artisans believe the authorities and government agencies play a significant role to help them to promote and raise awareness on the locally made handwoven products while they are facing fierce competition from handwoven products from neighbouring countries. Equally, ease of market access and subsidies are another support needed by the artisans where national fairs are concerned:

“It will be good if there are subsidy for us, especially on transportation and fuel, whenever we join the local or national exhibitions or fair markets. Because it is such a long way to go from the remote areas to the city, we also have to increase our prices during the fair.”

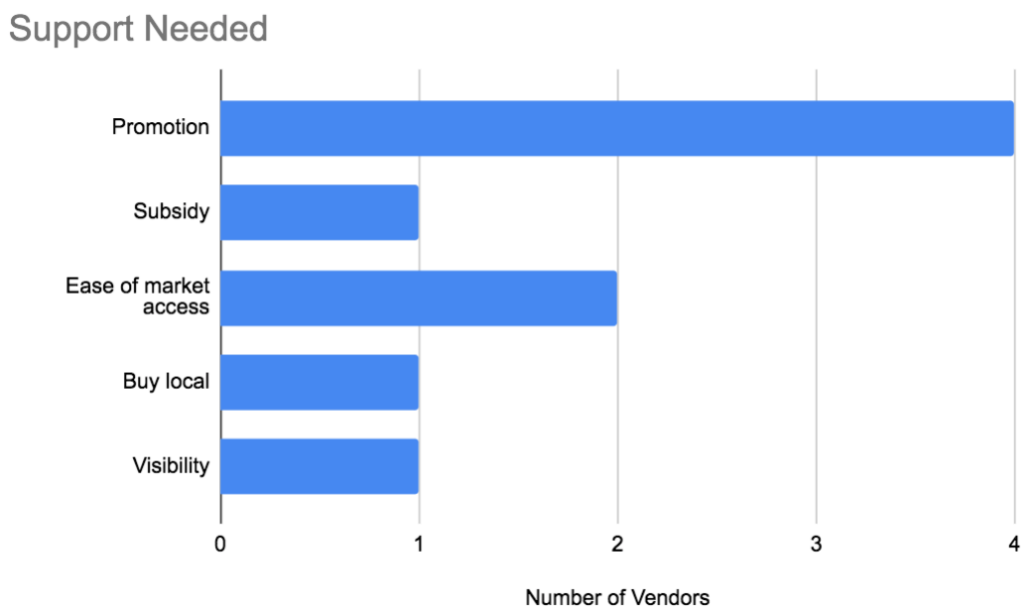


Fig. 14. A bar chart on the support needed by the traditional handicraft entrepreneurs

6. Conclusion

The traditional handicraft industry in Brunei, despite being an old and ancient industry, possess such vibrance and sentimental value to the artisans. This paper has uncovered the intergenerational knowledge exchange on weaving activities, crafting processes and techniques between family members who are still practising the art of weaving in Brunei's longhouses. Weaving is an activity that has been passed down from generations, and preserved in a form of social and communal bonding between mothers and daughters. This form of cultural preservation is deeply rooted in a sense of community belonging and family values, thus confirming the micro-perspectives on cultural preservation of Brunei's traditional handicrafts intended for this research. The lack of research on micro level of preservation, which was previously only done in China as the literature suggested, should encourage future research to investigate this avenue further.

The innovation of Brunei's traditional handicrafts is mostly cultural, incremental in nature, non-radical and suitable according to the change of times. It is only limited to new materials such as plastic strips, new tools used and fresh product designs from the internet. Nowadays, the artisans are also crafting modern fashion statement products such as handbags and purses using the traditional weaving techniques, and these fashion statement products were never produced using the natural materials. Technology such as the internet and digital marketing play a crucial role in the research and design stage, the marketing and sales stage of the handicraft products, increasing the creativity and productivity of these artisans.

However, innovation, just as past literature suggested, is not always welcomed in the traditional handicraft industry, both in the literature and in Brunei's context. The preservation of product designs and materials used are always prioritised, even in the modern times, so the tradition and craft would not decline over time. Thus, balance between cultural preservation and innovation of such products with high sentimental and heritage value is achieved through the mediating effect of technology and modernization of customers' profiles.

This study has brought new light onto the factors needed to support the preservation and promotion of this heritage industry, namely educational programs and community workshops with focus on the traditional weaving techniques to ensure that the younger generations have access to both formal and informal training. Marketing and sales support for the artisans are needed to reach wider audience, both locally and internationally. Cultural events are integral to develop this industry further, encouraging public awareness and engagement of locally-made traditional handicraft products compared to the foreign-made traditional handicraft products, simultaneously cultivating appreciation of this ancient art.

In conclusion, the traditional handicraft industry in Brunei faces significant challenges, but has opportunities for growth and development. By addressing these challenges and leveraging opportunities, artisans may be able to sustain their businesses and preserve the heritage. Government support and wider market access are crucial in this endeavor, ensuring this industry is vibrant and competitive.

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