Plastic Waste Art Medium: The Integration of sustainability in Contemporary Malaysian Art

Mohd Razif Mohd Rathi[1*], Muhammad Fauzan Abu Bakar[2], Zaidi Wasli[3], Clement Jimel[4], Valerie Michael[5]

[1,2,3,4,5] College of Creative Arts, University Teknologi MARA, Cawangan Sarawak

***Corresponding Author**

DOI: https://dx.doi.org/10.47772/IJRISS.2025.9010316

Received: 09 January 2025; Accepted: 16 January 2025; Published: 21 February 2025

ABSTRACT

This research investigates the economic considerations associated with the utilisation of recycled materials, particularly plastic waste, within contemporary art practices in Malaysia. As artists increasingly adopt sustainable approaches by incorporating recycled materials into their creative processes, understanding economic factors—such as cost, availability, and creative potential—becomes paramount. Employing an explanatory and quantitative methodology, the study utilised an online survey featuring a 5-point Likert scale to collect data from 84 participants, comprising art practitioners, professional artists, and emerging artists. A random stratified sampling method ensured a representative sample encompassing varying levels of experience within the artistic community. The data were analysed using Partial Least Squares Structural Equation Modelling (PLS-SEM) with bootstrapping, alongside Importance-Performance Map Analysis (IPMA), to evaluate the significance, importance, and performance of various factors influencing the adoption of recycled materials in art. The findings reveal that while cost and material availability substantially impact artistic decision-making, the creative potential inherent in the use of recycled materials emerges as a key driver of innovation and sustainability within the art sector. Community engagement and exploratory practices were identified as pivotal elements in fostering the successful integration of recycled materials into artistic projects, although economic challenges persist as a notable barrier for many artists. This study provides a nuanced understanding of the ways in which economic considerations shape sustainable art practices, offering valuable insights into how the art industry can more effectively support and promote environmentally conscious creative endeavours. By highlighting the intersection of economic factors and sustainability, the research contributes to the broader discourse on advancing eco-friendly practices within contemporary art.

Keywords: Plastic Waste Management; Sustainable Art Practices; Recycled Materials in Art; Contemporary Malaysian Art; Economic Considerations in Art.

INTRODUCTION

The integration of recycled materials, particularly plastic waste, into contemporary art has gained prominence as a compelling trend that reflects society's growing awareness of sustainability and environmental challenges[1,2]. This shift in artistic practice not only aligns with broader ecological concerns but also embodies a critique of environmental degradation caused by consumerism and industrialisation. Artists who incorporate recycled materials into their work engage in a dialogue that transcends traditional art forms, pushing the boundaries of creative expression while addressing pressing global issues [3]. However, this practice is not without its complexities, as artists must navigate a multifaceted landscape shaped by both creative aspirations and economic realities.

Central to this practice are the economic considerations that underpin the feasibility of using recycled materials in art. Factors such as cost, availability, and creative potential significantly influence the choices artists make [4,5]. Unlike conventional art supplies, which are typically standardised, readily available, and priced within

predictable ranges, recycled materials often vary widely in quality, quantity, and accessibility. For instance, the availability of specific types of plastic waste can depend on local waste management systems, while the costs associated with sourcing, transporting, and processing such materials can fluctuate due to market dynamics [2,6]. These variables can present significant challenges for artists, particularly those working with limited resources or operating in regions with inconsistent recycling infrastructure.

Moreover, the use of recycled materials raises questions about the perceived value of such artworks in the art market. While some collectors and institutions celebrate the environmental and conceptual significance of artworks created from recycled materials, others may undervalue them due to preconceived notions about the inferiority of the materials themselves [3,7]. This tension between sustainability and marketability can affect not only the pricing of such works but also the broader reception of recycled art within the art world. Artists may find themselves balancing the desire to create impactful, sustainable works with the need to achieve economic viability in a competitive marketplace.

Despite these challenges, the creative potential of recycled materials is a powerful driver for many artists. The inherent unpredictability and diversity of recycled materials often inspire innovative approaches, encouraging artists to experiment with new techniques and forms. By transforming waste into art, artists not only repurpose discarded materials but also reframe them as objects of value and meaning, offering audiences a critical lens through which to view issues of consumption and environmental stewardship[8].

This study seeks to critically examine the intersection of economics and sustainability within contemporary art practices. By exploring how artists balance these competing demands, it aims to contribute to a deeper understanding of the opportunities and challenges inherent in the use of recycled materials. Ultimately, it aspires to offer insights into how the art world can better support environmentally conscious practices, fostering a cultural shift towards sustainability and innovation in creative industries[9].

LITERATURE REVIEW

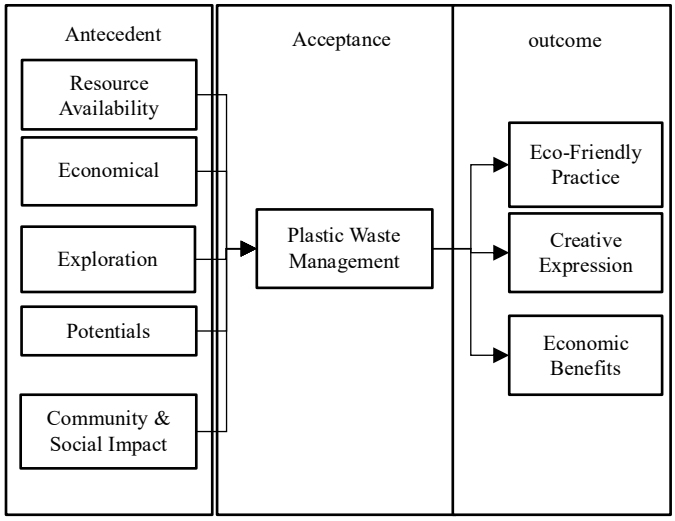

Fig. 1 Propose Theoretical Framework

A. The Role of Community Engagement in Sustainable Art Practices: Insights from Plastic Waste Management in Contemporary Art

The role of community engagement in sustainable art practices, particularly in the context of plastic waste management within contemporary art, has become increasingly significant in both environmental and artistic discourse[1,4]. This literature review seeks to examine how community-driven initiatives and social participation contribute to the success of sustainable art practices. Involving communities in the transformation of plastic waste into artistic creations not only raises awareness of environmental challenges but also fosters a sense of

collective responsibility and empowerment[10]. Such communal involvement can take diverse forms, including collaborative art projects, educational workshops, and public installations, all of which play a role in promoting a cultural shift towards sustainability.

However, while the benefits of community engagement in sustainability are widely recognised, it is essential to critically evaluate the complexities and challenges inherent in these practices. The effectiveness of community involvement often depends on factors such as the level of public interest, the accessibility of resources, and the extent of institutional support[11]. Furthermore, tensions may arise between the artistic autonomy of creators and the goals of community-driven initiatives, as artistic vision may need to be balanced against the expectations and contributions of community participants[12].

This review will also explore how varying models of community engagement influence outcomes in managing plastic waste through art. Comparative analyses could be drawn between grassroots initiatives and institutional projects, highlighting the distinct impacts each approach has on the art produced and the communities involved[13,14]. Additionally, a critical assessment will address the sustainability of these engagements over time, questioning whether community-driven art projects can achieve long-term environmental change or risk becoming temporary solutions that fail to address more profound systemic issues.

In conclusion, this literature review offers a fertile area for critical exploration, deepening the understanding of how community engagement shapes the intersection of art and sustainability. By identifying challenges and opportunities, it aims to provide insights into how such practices can be refined to foster lasting environmental awareness and creative innovation.

B. Innovative Approaches in Artistic Exploration: The Integration of Plastic Waste in Contemporary Art

The integration of plastic waste into contemporary art marks a pivotal shift towards innovative practices in artistic exploration, reflecting a growing awareness of sustainability and environmental responsibility. This literature review explores how contemporary artists are redefining the boundaries of traditional art forms by repurposing plastic waste, transforming what is often regarded as a symbol of environmental degradation into a medium of creative expression[15]. By doing so, these artists challenge conventional notions of art, engaging with urgent ecological issues and offering a critical commentary on consumerism, pollution, and the consequences of human activity on the natural environment[16].

A critical analysis of this topic requires an examination of the diverse techniques employed by artists to incorporate plastic waste into their work. These range from sculptural and installation art to mixed media and collage, each offering unique approaches to reinterpreting discarded materials. This review will consider how these innovative practices align with and contribute to broader artistic movements such as eco-art, upcycling, and sustainable design. Additionally, the role of technological advancements and new materials will be addressed, highlighting how developments in material science and digital fabrication enable more sophisticated and environmentally conscious art forms[17,18].

While the use of plastic waste in art is often celebrated for its environmental messaging, it is vital to critically assess the effectiveness of such artistic interventions. Key questions arise regarding the actual environmental impact of repurposing plastic waste in art—does the transformation of waste into artistic creations reduce its ecological harm, or does it merely aestheticise and commodify pollution? Furthermore, it is important to evaluate the longevity and sustainability of these artworks and their potential to inspire meaningful change beyond the confines of the art world[19,20].

The review will also examine the challenges faced by artists working with plastic waste, such as the technical difficulties associated with non-traditional materials and the stigma that may accompany the use of waste in fine art. Additionally, it will explore how the art market and institutions respond to these practices, questioning whether the commercial value attributed to such works aligns with their ecological and ethical intentions.

In conclusion, this literature review provides a critical exploration of how contemporary artists innovate through the use of plastic waste, balancing creative experimentation with environmental activism. It invites reflection

on the implications of these practices for the art community and their potential to contribute to a more sustainable and conscientious future.

C. Economic Considerations in the Use of Recycled Materials for Art: Balancing Cost, Availability, and Creative Potential

The economic considerations associated with the use of recycled materials in art, particularly plastic waste, represent a crucial yet multifaceted aspect of contemporary artistic practice. This literature review seeks to explore how artists navigate the challenges of cost, material availability, and creative potential when incorporating recycled materials into their work. While employing recycled materials, such as plastic waste, is often regarded as an environmentally and socially responsible choice, it also raises critical questions regarding the economic viability and sustainability of these practices[21,22].

Artists working with recycled materials frequently face the challenge of fluctuating costs, influenced by factors such as the availability of specific waste materials, transportation expenses, and the labour-intensive processes required to repurpose them. Unlike traditional art materials, which are standardised, and widely accessible, recycled materials often vary significantly in quality, quantity, and cost. These variations, driven by regional waste management practices and market conditions, can create obstacles for artists who require consistent and reliable resources, potentially restricting their creative expression and the scale of their projects[1,21].

This review also critically examines the positioning of recycled materials within the art market. A notable tension exists between the perceived value of artworks created from traditional, often costly materials, and those made from recycled or waste materials. While some collectors and institutions may recognise the environmental and conceptual value of such works, others may undervalue them due to the perceived inferiority of the materials employed. This dynamic has implications for the pricing, marketability, and overall economic success of artists who prioritise sustainability within their practice[23,24].

Additionally, the broader economic implications of integrating recycled materials into art are significant. On one hand, such practices can contribute to a circular economy by reducing reliance on virgin materials and promoting environmental sustainability. On the other hand, the economic benefits for artists may be limited if the costs associated with sourcing and processing recycled materials exceed the potential financial returns. This review will also consider how subsidies, grants, and institutional support for eco-conscious art practices could help mitigate these challenges and encourage greater adoption of recycled materials in the art world[25,26].

In conclusion, this literature review provides a critical analysis of the economic factors shaping the use of recycled materials in art, underscoring the need to balance cost, availability, and creative potential. It challenges the art community to reflect on how economic structures can either support or hinder sustainable practices and encourages a re-evaluation of the value placed on art that actively engages with environmental issues.

RESEARCH METHODOLOGY

This research adopts an explanatory approach to investigate the economic considerations in the use of recycled materials, particularly plastic waste, in contemporary art practices. A quantitative research design was employed, utilizing an online survey as the primary data collection method to capture responses from participants. The survey featured a 5-point Likert scale, allowing respondents to express their levels of agreement or disagreement with various statements related to the cost, availability, and creative potential of recycled materials in artistic practices.

A random stratified sampling technique was used to ensure a representative distribution of the target population, comprising 84 participants, including established art practitioners, professional artists, and young artists who actively engage with recycled materials in their creative work. This approach was designed to capture diverse perspectives across different levels of experience and professional standing within the art community.

Data analysis was conducted using Partial Least Squares Structural Equation Modelling (PLS-SEM), employing both the bootstrapping technique and Importance-Performance Map Analysis (IPMA). The bootstrapping

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS | Volume IX Issue I January 2025

method was used to assess the significance of the path coefficients, while the IPMA was applied to identify the relative importance and performance of the key factors influencing the use of recycled materials in art. This combined analytical approach enabled a comprehensive understanding of the economic dynamics at play, providing insights into the challenges and opportunities that impact the use of recycled materials in contemporary art.

FINDINGS

Reliability and Validity Test

Table I Reliability and Validity Test

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
Community & Social Impact	0.863	0.867	0.916	0.785
Creative Expression	0.891	0.896	0.932	0.820
Eco-Friendly Practice	0.837	0.842	0.902	0.754
Economic Benefits	0.864	0.867	0.917	0.786
Economical	0.866	0.868	0.918	0.788
Exploration	0.818	0.820	0.892	0.733
Health and Well-being	0.863	0.866	0.916	0.784
Plastic Waste Management	0.884	0.886	0.928	0.812
Potentials	0.869	0.874	0.920	0.792
Resource Availability	0.868	0.880	0.919	0.791

The reliability and validity of the constructs in this study were assessed using Cronbach's alpha, composite reliability (rho_a and rho_c), and the average variance extracted (AVE). The results, as detailed in Table 1, demonstrate robust internal consistency and validity across all variables.

Specifically, Cronbach's alpha values for all constructs ranged from 0.818 to 0.891, indicating high internal consistency and reliability. This was further supported by composite reliability scores (rho_a and rho_c), with rho_a values ranging from 0.820 to 0.896 and rho_c values from 0.892 to 0.932, all exceeding the recommended threshold of 0.70, confirming the reliability of the measurement model.

The AVE values, which measure the amount of variance captured by a construct relative to the variance due to measurement error, ranged from 0.733 to 0.820. These values are well above the accepted minimum of 0.50, indicating that a significant portion of variance is explained by the constructs.

Specifically, the constructs "Creative Expression" and "Plastic Waste Management" exhibited the highest levels of reliability and validity, with AVE values of 0.820 and 0.812, respectively. These results indicate that the measurement model for these variables is particularly strong. Other constructs, such as "Eco-Friendly Practice," "Health and Well-being," and "Resource Availability," also showed high levels of reliability and validity, with AVE values ranging from 0.754 to 0.791.

Overall, these findings confirm that the constructs used in this study—Community & Social Impact, Creative Expression, Eco-Friendly Practice, Economic Benefits, Economical, Exploration, Health and Well-being, Plastic Waste Management, Potentials, and Resource Availability—are both reliable and valid. This supports the robustness of the proposed model and the appropriateness of these constructs for exploring the application of plastic waste in Malaysian contemporary art.

Path Coefficient Result

Table II Pathcoefficiet Result

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	Statistics (|O/STDEV|)	P values
Community & Social Impact	0.413	0.395	0.125	3.298	0.001
Economical	0.011	0.028	0.100	0.110	0.913
Exploration	0.423	0.423	0.110	3.842	0.000
Creative Expression	0.811	0.800	0.062	13.011	0.000
Eco-Friendly Practice	0.791	0.782	0.076	10.476	0.000
Economic Benefits	0.839	0.832	0.054	15.646	0.000
Health and Well-being	0.830	0.817	0.068	12.178	0.000
Potentials ->	0.086	0.076	0.125	0.688	0.491
Resource Availability	0.024	0.033	0.101	0.237	0.813

The analysis of the PLS-SEM path coefficients, as shown in Table 2, provides insights into the relationships between various constructs in the context of plastic waste management within Malaysian contemporary art. The results indicate significant positive relationships between several constructs and plastic waste management, as well as the impact of plastic waste management on other key outcomes.

Notably, the path from Community & Social Impact to Plastic Waste Management yielded a path coefficient of 0.413, with a T-statistic of 3.298 and a p-value of 0.001, indicating a statistically significant and strong influence. Similarly, Exploration demonstrated a substantial effect on plastic waste management, with a path coefficient of 0.423, a T-statistic of 3.842, and a p-value of 0.000, underscoring the importance of exploratory practices in enhancing plastic waste management.

Furthermore, Plastic Waste Management was found to have a robust and significant positive impact on several outcomes. The strongest relationship was observed between plastic waste management and Economic Benefits (path coefficient = 0.839, T-statistic = 15.646, p-value = 0.000), indicating that effective plastic waste management can significantly enhance the economic advantages within the artistic community. Similarly, plastic waste management strongly influenced Health and Well-being (path coefficient = 0.830, T-statistic = 12.178, p-value = 0.000) and Eco-Friendly Practice (path coefficient = 0.791, T-statistic = 10.476, p-value = 0.000), highlighting its critical role in promoting sustainable and health-conscious art practices.

Conversely, the paths from Economical (path coefficient = 0.011, T-statistic = 0.110, p-value = 0.913), Potentials (path coefficient = 0.086, T-statistic = 0.688, p-value = 0.491), and Resource Availability (path coefficient = 0.024, T-statistic = 0.237, p-value = 0.813) to plastic waste management were not statistically significant. These findings suggest that while these factors may be relevant, they do not exert a strong direct influence on plastic waste management in the context of Malaysian contemporary art.

In summary, the path analysis reveals that Community & Social Impact and Exploration are key drivers of effective plastic waste management, which in turn significantly contributes to creative expression, eco-friendly practices, economic benefits, and health and well-being among artists. These findings underscore the importance of social engagement and exploratory practices in enhancing the role of plastic waste in contemporary art, while also suggesting that the availability of resources and economic considerations may play a less direct role in this context.

Importance-Performance Map Result

Table III Ipma Result

	Importance	Performance
Community & Social Impact	0.413	87.717
Economical	0.011	78.073
Exploration	0.423	85.785
Potentials	0.086	83.780
Resource Availability	0.024	82.634

The Importance-Performance Map Analysis (IPMA) presented in Table 3 provides a nuanced understanding of the relative importance and performance of various factors influencing plastic waste management within Malaysian contemporary art. This analysis allows for the identification of key areas where efforts could be optimized to enhance overall effectiveness.

The Community & Social Impact construct stands out with an importance score of 0.413 and a high-performance score of 87.717. This indicates that community and social factors are not only crucial for effective plastic waste management but are also performing exceptionally well in the current context. Similarly, Exploration is both important and performing well, with an importance score of 0.423 and a performance score of 85.785, highlighting the critical role of exploratory practices in managing plastic waste effectively.

In contrast, the Economical factor, while having a very low importance score of 0.011, shows a relatively high-performance score of 78.073. This suggests that while economic considerations are not a primary driver of plastic waste management, the performance in this area is satisfactory. Potentials and Resource Availability also exhibit lower importance scores of 0.086 and 0.024, respectively, with performance scores of 83.780 and 82.634. These results imply that while these factors are less critical in driving effective plastic waste management, they are nonetheless performing well, potentially indicating that they are adequately addressed in current practices.

Overall, the IPMA results emphasize the significance of focusing on community engagement and exploratory approaches to enhance the management and utilization of plastic waste in the Malaysian contemporary art scene. While economic and resource availability factors are less influential, maintaining their current performance levels is beneficial for the overall success of plastic waste management initiatives.

DISCUSSION

The findings from the Importance-Performance Map Analysis (IPMA) provide critical insights into the factors that significantly influence plastic waste management in Malaysian contemporary art. The high importance and performance of Community & Social Impact (importance = 0.413, performance = 87.717) underscore the essential role that social engagement and community-driven initiatives play in successfully integrating plastic waste into artistic practices. This suggests that efforts to foster community involvement and highlight the social benefits of using plastic waste are not only necessary but are currently well-implemented, making this a key area for continued focus and potential expansion.

Similarly, Exploration (importance = 0.423, performance = 85.785) is identified as both a vital driver and a well-performing factor, indicating that artistic experimentation and the exploration of new techniques are central to the effective use of plastic waste in art. These findings suggest that promoting creative exploration and providing platforms for artists to experiment with plastic waste materials could further enhance innovation and sustainability in the art sector.

On the other hand, the relatively low importance of the Economical factor (importance = 0.011) coupled with its high performance (78.073) reveals an interesting dynamic: while economic considerations do not appear to be a primary motivator in plastic waste management, the current practices in this area are nonetheless strong. This could indicate that the economic aspects of plastic waste usage are already well-addressed, allowing artists to focus more on creative and social impacts without significant financial concerns.

The factors of Potentials (importance = 0.086, performance = 83.780) and Resource Availability (importance = 0.024, performance = 82.634) also show lower importance but adequate performance, suggesting that while these elements are less critical to the success of plastic waste management, they are being effectively managed within the current framework. This balance indicates that while they do not drive plastic waste management, maintaining their performance is important for overall sustainability and continued success.

In conclusion, the IPMA results highlight the critical importance of community involvement and exploratory practices in the effective management of plastic waste within the Malaysian contemporary art scene. These findings suggest that future efforts should continue to emphasize and enhance these areas while maintaining the strong performance in economic and resource availability factors to ensure the ongoing success of plastic waste initiatives in art.

The findings from the Importance-Performance Map Analysis (IPMA) provide valuable insights into the factors that influence plastic waste management in Malaysian contemporary art. However, these findings warrant a deeper critical review, especially when linked to existing literature on sustainable art practices and the integration of recycled materials in creative processes. While the results highlight the centrality of community engagement and exploratory practices, they also raise questions about the broader implications and limitations of these findings within the context of contemporary art and sustainability.

Community Engagement and Social Impact

The study underscores the high importance and performance of community and social impact (importance = 0.413, performance = 87.717), affirming the vital role of social engagement in fostering successful plastic waste integration. This aligns with previous research emphasising community-driven initiatives as catalysts for sustainability in art. However, it is crucial to critically examine whether the current frameworks for community engagement are inclusive and equitable. While high performance suggests effective practices, the literature cautions against assuming universality, as the success of such initiatives often depends on the socio-economic context and the level of public interest. For instance, marginalised communities may lack access to these initiatives, potentially limiting their broader impact. Moreover, tensions between artistic autonomy and community expectations, remain a critical challenge, particularly when artists must balance their creative vision with the goals of community-driven projects.

Exploration and Creative Experimentation

The study's emphasis on exploration as a key driver (importance = 0.423, performance = 85.785) aligns with literature that highlights the transformative potential of experimental approaches in sustainable art practices. However, the high importance placed on exploratory practices raises questions about accessibility and scalability. While experimental techniques may yield innovative outcomes, they often require specialised skills, resources, and institutional support, which may not be readily available to all artists, particularly those in rural or underfunded contexts. The literature also suggests that the focus on exploration must be balanced with practical considerations, such as the longevity and environmental impact of the resulting artworks, to ensure that such practices contribute meaningfully to sustainability rather than merely aestheticizing waste.

Economic Considerations

The relatively low importance of the economic factor (importance = 0.011, performance = 78.073) presents an intriguing dynamic that appears to contradict findings in existing literature. While the study suggests that economic concerns are well-addressed, previous research highlights persistent challenges related to the fluctuating costs of recycled materials and their impact on artistic viability. This discrepancy may stem from the specific sampling population, which may include artists who have already adapted to the economic demands of using recycled materials. However, this raises concerns about the generalisability of the findings, as artists in less economically stable regions or those new to working with recycled materials may face more significant financial barriers. Additionally, the undervaluation of artworks made from recycled materials in the art market, suggests that economic concerns may be underestimated in the study's analysis.

Resource Availability and Potential

The findings regarding resource availability (importance = 0.024, performance = 82.634) and potential (importance = 0.086, performance = 83.780) suggest that these factors are adequately managed but not critical drivers. While this aligns with the idea that artistic innovation often transcends material constraints, it also points to an area of potential oversight. The literature emphasises that the variability and inconsistency of recycled materials can pose challenges to artists, particularly those working on larger-scale projects or in regions with underdeveloped recycling infrastructure. Furthermore, while resource availability may not directly drive plastic waste management, ensuring consistent access to quality materials is essential for sustaining these practices over time.

IMPLICATION OF STUDIES

The findings of this study have broader implications for promoting sustainable art practices globally, particularly in developing nations that align with the United Nations' SDG17 agenda. In Malaysia, there is growing societal acceptance of products made from recycled materials, reflecting a heightened environmental awareness. This provides a foundation for integrating sustainable art practices as part of cultural norms. However, such generalization to other regions must consider variations in cultural values, governmental policies, and levels of societal readiness. For instance, developed nations may exhibit greater technological advancements but lack grassroots community engagement in recycling initiatives, whereas some conservative societies may prioritize preservation of traditional practices over artistic experimentation.

Furthermore, the integration of recycled materials into art offers a dual benefit: fostering creative innovation and fulfilling environmental responsibilities. Yet, disparities in global resource availability and recycling infrastructure present challenges for under-resourced artists, particularly in regions where waste management systems are underdeveloped. Addressing these gaps requires localized solutions and adaptive approaches tailored to the specific socio-economic and geographical contexts of each country. For example, partnerships with non-governmental organizations and international collaborations could provide the necessary support for artists in resource-constrained regions.

In terms of community-engaged art, the findings underscore the need for artists to embrace a balance between their creative autonomy and the collective identity of the communities they work with. Art projects involving diverse communities must integrate local cultural elements, ensuring that the artistic process is inclusive and representative of the community's lived realities. This aligns with global discourses on participatory art practices, which emphasize co-creation as a means to empower communities while fostering a shared sense of ownership over the artistic outcomes. By doing so, artists can address potential conflicts arising from differing cultural and intellectual interpretations, ensuring that the artwork not only resonates with the community but also contributes to their broader socio-environmental transformation.

Lastly, as digital art gains prominence globally, there is a risk of disconnecting artistic practices from environmental concerns. This study highlights the importance of grounding artistic innovation in sustainability, advocating for a holistic approach where artists actively engage in mitigating waste and environmental issues,

rather than solely relying on digital mediums. By bridging creative practices with sustainability, this research provides a roadmap for cultivating environmentally conscious art ecosystems, adaptable to the diverse needs and challenges faced by artists worldwide.

CONCLUSION AND RECOMMENDATION

The findings from the Importance-Performance Map Analysis (IPMA) provide actionable insights for improving plastic waste management in the Malaysian contemporary art sector. Notably, the strong importance and performance of Community & Social Impact and Exploration underscore the pivotal role of fostering community engagement and encouraging artistic experimentation. To build on this momentum, art institutions and policymakers should prioritise initiatives that promote social collaboration, community-driven art projects, and innovative techniques for repurposing plastic waste. Such efforts are likely to not only sustain current successes but also inspire broader cultural shifts toward sustainability in the arts.

Although Economical factors are deemed less critical in the analysis, their high performance suggests that existing frameworks for managing economic aspects of plastic waste usage are effective. This indicates that financial barriers for artists using recycled materials are currently well addressed. To ensure continued success, it is recommended that these frameworks be maintained and, where possible, expanded. Providing financial incentives, subsidies, or grants to support artists working with plastic waste could further enhance their capacity to scale their projects and explore new creative avenues.

The findings regarding Potentials and Resource Availability indicate these areas are adequately managed but not primary drivers of success. However, consistent monitoring is crucial to ensure the steady availability of plastic waste materials and to identify untapped opportunities for their creative application. While these factors require less emphasis compared to community and exploratory initiatives, they remain essential to maintaining the overall sustainability of plastic waste management practices in art.

A critical review of these findings, when compared with existing literature, highlights some potential oversights. While community engagement and exploration are vital, it is essential to acknowledge the socio-economic and regional disparities that may influence the viability of these practices. For instance, marginalised communities or artists in less resource-rich regions may lack access to the necessary tools, support, or platforms to engage fully in these initiatives. Future strategies should focus on making these practices more inclusive, ensuring equitable access to resources and opportunities for all stakeholders.

Additionally, while the current emphasis on short-term performance is valuable, there is a need to explore the long-term sustainability of these initiatives. Community-driven projects and exploratory practices must not only thrive in the present but also foster systemic change that continues to shape the art world in the future. For example, integrating educational programmes into these initiatives could help instil a culture of sustainability among emerging artists and audiences. Moreover, partnerships with environmental organisations and waste management sectors could create a more robust infrastructure for sourcing and processing plastic waste materials.

In conclusion, while the IPMA findings provide a strong foundation for enhancing plastic waste management in art, a more nuanced and forward-looking approach is essential. By addressing socio-economic disparities, fostering long-term sustainability, and building strategic partnerships, the Malaysian contemporary art sector can not only lead in the innovative use of plastic waste but also serve as a model for integrating environmental responsibility into creative industries globally. These efforts will ensure that art continues to play a transformative role in promoting sustainability and inspiring collective action.

REFERENCES

1. Zainal Abidin, M., Sabri, N. S., Wan Mohd Daud, W. S. A., & Wulandari, W. S. (2024). Waste Materials as a Sustainable Medium in Contemporary Art: An analysis of Malaysian artists' creative practices. Environment-Behaviour Proceedings Journal, 9(28), 91–97. https://doi.org/10.21834/e-bpj.v9i28.5919

2. Nayanathara Thathsarani Pilapitiya, P. G. C., & Ratnayake, A. S. (2024). The world of plastic waste: A review. Cleaner Materials, 11, 100220. https://doi.org/10.1016/J.CLEMA.2024.100220
3. Haralambous, H. (2024). The Language of Recycled Art: Theories and Frameworks. https://doi.org/10.13140/RG.2.2.16314.61121
4. Asamoah, S. P., Adom, D., Kquofi, S., & Nyadu-Addo, R. (2022). Recycled art from plastic waste for environmental sustainability and aesthetics in Ghana. Research Journal in Advanced Humanities, 3(3), 29–58. https://doi.org/10.58256/rjah.v3i3.872
5. Al-Saud, K. M., AlAli, R., Abouelela, A. S., & Al Saud, A. M. (2024). Exploring the Feasibility for Utilizing Recycled Palm Waste in Decorative Design Applications as Enhancements for Tourist Destinations: A Step toward Environmental Sustainability. Sustainability (Switzerland), 16(3). https://doi.org/10.3390/su16031003
6. Moshood, T. D., Nawanir, G., Mahmud, F., Mohamad, F., Ahmad, M. H., & Abdulghani, A. (2022). Sustainability of biodegradable plastics: New problem or solution to solve the global plastic pollution? Current Research in Green and Sustainable Chemistry, 5, 100273. https://doi.org/10.1016/J.CRGSC.2022.100273
7. Merman, H. B., Salehuddin, M., Zakaria, B., Fauzi, A., & Hamzah, B. A. (2021). Recycling from SI + SA Exhibition in the Context of Visual Arts Recycling from SI+SA Exhibition in the Context of Visual Arts Recycling from SI + SA Exhibition in the Context of Visual Arts. In Pg. 1-12 International Journal of Art & Design, University Teknologi MARA Cawangan Melaka (Vol. 5, Issue 02). https://melaka.uitm.edu.my/ijad/index.php|eISSN|1https://melaka.uitm.edu.my/ijad/index.php|
8. Kikuchi, R. (2023). 74 Multidisciplinary View on the Link of Environmental Activism with Art Creation-a Case Study of Recycled (Junk) Art Multidisciplinary View on the Link of Environmental Activism with Art Creation-a Case Study of Recycled (Junk) Art. In International Journal of Art & Design (IJAD) (Vol. 7, Issue 1). Pg. https://myjms.mohe.gov.my/index.php/ijad/index
9. Zhang, L., & Shen, T. (2024). Integrating Sustainability into Contemporary Art and Design: An Interdisciplinary Approach. In Sustainability (Switzerland) (Vol. 16, Issue 15). Multidisciplinary Digital Publishing Institute (MDPI). https://doi.org/10.3390/su16156539
10. Yao, S., Ghazali, R., Hou, J., & Wang, X. (2024). The Aesthetics of Sustainability: Incorporating Plastic Recycling into Art and Design Education. International Journal of Modern Education, 6(21), 01–18. https://doi.org/10.35631/ijmoe.621001
11. Rijal, S. (2023). The Importance of Community Involvement in Public Management Planning and Decision-Making Processes. Journal of Contemporary Administration and Management (ADMAN), 1(2), 84–92. https://doi.org/10.61100/adman.v1i2.27
12. Mia, Md. T., Islam, M., Sakin, J., & Al-Hamadi, J. (2022). The Role of Community Participation and Community-Based Planning in Sustainable Community Development. Asian People Journal (APJ), 5(1), 31–41. https://doi.org/10.37231/apj.2022.5.1.296
13. He, Y., Zaremohzzabieh, Z., Rahman, H. A., Ismail, S. N. S., & Bin-Qiang, J. (2024). Applying participatory research in solid waste management: A systematic literature review and evaluation reporting. In Journal of Infrastructure, Policy and Development (Vol. 8, Issue 5). EnPress Publisher, LLC. https://doi.org/10.24294/jipd.v8i5.5072
14. Taouahria, B. (2024). Predicting citizens municipal solid waste recycling intentions in Morocco: The role of community engagement. Waste Management Bulletin, 2(1), 316–326. https://doi.org/10.1016/J.WMB.2024.02.008
15. Alaghemandi, M. (2024). Sustainable Solutions Through Innovative Plastic Waste Recycling Technologies. In Sustainability (Switzerland) (Vol. 16, Issue 23). Multidisciplinary Digital Publishing Institute (MDPI). https://doi.org/10.3390/su162310401
16. Roosen, L. J., Klöckner, C. A., & Swim, J. K. (2018). Visual art as a way to communicate climate change: a psychological perspective on climate change–related art. World Art, 8(1), 85–110. https://doi.org/10.1080/21500894.2017.1375002
17. Xo Ming, Z., & Khizal Mohamed Saat, M. (n.d.). Plastic In Artistic Forms: Interpretation Of Artworks Related To Plastic Crisis Through Studio-Based Research. https://doi.org/10.51200/ga.vi.5181
18. İlhan, M. (2016). Transforming Trash as an Artistic Act. https://doi.org/10.13140/RG.2.1.2374.8085

19. Kumar, R., Verma, A., Shome, A., Sinha, R., Sinha, S., Jha, P. K., Kumar, R., Kumar, P., Shubham, Das, S., Sharma, P., & Prasad, P. V. V. (2021). Impacts of plastic pollution on ecosystem services, sustainable development goals, and need to focus on circular economy and policy interventions. In Sustainability (Switzerland) (Vol. 13, Issue 17). MDPI. https://doi.org/10.3390/su13179963
20. Burrows, S. D., Ribeiro, F., O'Brien, S., Okoffo, E., Toapanta, T., Charlton, N., Kaserzon, S., Lin, C. Y., Tang, C., Rauert, C., Wang, X., Shimko, K., O'Brien, J., Townsend, P. A., Grayson, M. N., Galloway, T., & Thomas, K. V. (2022). The message on the bottle: Rethinking plastic labelling to better encourage sustainable use. Environmental Science & Policy, 132, 109–118. https://doi.org/10.1016/J.ENVSCI.2022.02.015
21. Sampah, S. N. A., Barfi-Mensah, H. M., Mensah, E. F., Vicku, C., Adja-Koadade, M., & Junior, A. A. (2024). Exploring sustainable aesthetics through repurposed studio waste materials for unorthodox finishes. Cleaner Waste Systems, 8, 100147. https://doi.org/10.1016/J.CLWAS.2024.100147
22. Kassab, A., Al Nabhani, D., Mohanty, P., Pannier, C., & Ayoub, G. Y. (2023). Advancing Plastic Recycling: Challenges and Opportunities in the Integration of 3D Printing and Distributed Recycling for a Circular Economy. In Polymers (Vol. 15, Issue 19). Multidisciplinary Digital Publishing Institute (MDPI). https://doi.org/10.3390/polym15193881
23. Mansour, H., Al-Yahyai, F., & Heiba, E. (2018). The Recycling Concept in Art Education at Sultan Qaboos University. Journal of Education and Social Development, 82–87. https://doi.org/10.5281/zenodo.2526431
24. Reike, D., Vermeulen, W. J. V., & Witjes, S. (2018). The circular economy: New or Refurbished as CE 3.0? — Exploring Controversies in the Conceptualization of the Circular Economy through a Focus on History and Resource Value Retention Options. Resources, Conservation and Recycling, 135, 246–264. https://doi.org/10.1016/J.RESCONREC.2017.08.027
25. Rosário, A. T., Lopes, P., & Rosário, F. S. (2024). Sustainability and the Circular Economy Business Development. In Sustainability (Switzerland) (Vol. 16, Issue 14). Multidisciplinary Digital Publishing Institute (MDPI). https://doi.org/10.3390/su16146092
26. Almusaed, A., Yitmen, I., Myhren, J. A., & Almssad, A. (2024). Assessing the Impact of Recycled Building Materials on Environmental Sustainability and Energy Efficiency: A Comprehensive Framework for Reducing Greenhouse Gas Emissions. Buildings, 14(6). https://doi.org/10.3390/buildings14061566