

Community Perspectives on Socio-Economic Impacts and Conservation Effectiveness at Melaka World Heritage Site

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Abstract

The effective design of policies, programmes, and projects (3Ps) requires a thorough understanding of their implementation, particularly in achieving intended objectives and assessing their socio-economic impacts on local communities. However, evaluations of such initiatives remain limited, including within the context of heritage sites such as Melaka. This study investigates local communities' perspectives on the socio-economic impacts of World Heritage Site (WHS) designation and the effectiveness of conservation efforts in Melaka, Malaysia. Utilising a mixed-methods approach, the study incorporates quantitative survey data from 386 respondents, analysed using SPSS, alongside qualitative insights from interviews, examined through thematic analysis. The findings reveal that enhanced community pride is a key positive outcome, whereas traffic congestion is the most frequently reported negative consequence. While authorities are generally perceived favourably, concerns persist regarding insufficient community involvement in decision-making processes. The study highlights the critical need for integrating local perspectives more effectively in the early stages of 3P implementation to ensure sustainable heritage management and community well-being.

1. Introduction

The mainstream perspective on development studies or sustainable development for that matter, strongly advocates that an inclusivity approach or local participation in any policy, programme and project (3P) is the vital ingredient for implementation success (Chirenje et al., 2013; Foster, 2017; Hisham et al., 2015; Nor-Hisham & Ho, 2016). This perspective is extended into the sustainable tourism field (Bahaire & Elliot-White, 1999; Chirenje et al., 2013; Muganda et al., 2013). While this perspective is viewed with a positive attitude, however, the demands to translate it into the actual implementation became a daunting task, if not controversial. The international picture of the heritage programme and the local community's involvement portrayed unpleasant pictures such as protests, grievances and complaints surrounding the implementation (Jimura, 2011; Okech, 2010; Su & Wall, 2014). Against the background, it puts enormous pressure on the policymakers to diligently design a programme

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that can reconcile human dimensions and aspirations as well as the economy and growth needed. Certainly, the unfavorable international situation concerning local communities must be addressed. However, in the local context, deficit attention has been given to the evaluation of the 3Ps (Policy, Programme and Project) particularly in evaluating the heritage designation inscription. Under this urgency, baseline data on the current heritage implementation programme's impacts on local communities have to be gathered. Only by then, effective mitigation measures for adverse impacts can be designed when local communities can voice out their concerns and interests.

2. Literature Review

In this section, the outline of the literature review will focus on the concept of socio-economic impact and the effectiveness of the conservation programmes in heritage areas.

2.1 Concept of Socio-Economic Impact

There has been a lot of effort done in Canada to create a framework that can incorporate the different economic and social values that come from cultural heritage places (The Outspan Group, 1999). The following simplified socio-economic framework can be used to analyse the cultural heritage industry using this work as a foundation (McLoughlin, Sodagar, and Kaminiski, 2006). Four different groups receive the effects of cultural heritage sites according to the framework. These groups include the environment, businesses, society in general, and individual stakeholders. The paradigm covers conventional evaluations of economic impact, such as those that look at consumption, investment, and multiplier effects, as well as direct user benefits (like benefits to existence) and social benefits (such benefits to cultural identity and education). As a result, practically all effects on cultural heritage sites can be classified under one of the categories. In North America, this kind of framework (Table 1) has been widely used for a variety of cultural items (The Outspan Group 1996, 1998a, and 1998b).

Table 1 A socio-economic benefit/impact framework (adapted from the Outspan Group 1999)

Personal Values and Impacts	Definition	Measurements
Direct use value	Personal visits to the institution for education, leisure, or research.	<ul style="list-style-type: none"> • Visitor numbers. • Visitor demographics. • Visitor spending. • Visitor consumer surplus. • Visitor satisfaction.
Indirect use value	Use and enjoyment of the site not achieved through visiting. This includes use of websites, reading books, watching television programmes about the site and consuming site merchandise.	<ul style="list-style-type: none"> • User numbers. • User characteristics. • User spending. • Indirect user consumer surplus.
Existence value	Personal satisfaction in the value of maintaining the existence of a site or institution.	<ul style="list-style-type: none"> • Number of users who derive this value. • Estimations of this personal value.
Bequest Value	Personal satisfaction in the value of maintaining the existence of a site or institution for future generations.	<ul style="list-style-type: none"> • Number of users who derive this value. • Estimations of this personal value.
Option value	Personal satisfaction in the value of maintaining the existence of a site or institution for potential future use.	<ul style="list-style-type: none"> • Number of users who derive this value. • Estimations of this personal value.

Economic Values and Impacts	Definition	Measurements
GDP impacts	Spending by users and the site itself causing an increase in GDP within the study area.	<ul style="list-style-type: none"> • User spending (direct spending effects) attributable to the site (e.g. travel costs). • Institutional spending: capital expenditures, operations, maintenance, and repairs. • Indirect spending associated with a visit. • Multiplier effects
Social Values and Impacts	Definitions	Measurements
Community pride and cohesion	Cultural heritage sites provide a backdrop to common interests and identities.	
Business location value	Value derived from business deciding to locate in an area because of the presence of cultural heritage sites.	<ul style="list-style-type: none"> • Number of businesses. • Reasons for business location. • The importance of cultural heritage sites for location decisions.
Identity	Benefits associated with sites enhancing feelings of identity. These can be locally, regionally, nationally, culturally, ethnically, etc.	<ul style="list-style-type: none"> • Studies on the impact of heritage sites on people's perceptions of community and society. • Studies of how sites can promote individual, local, regional, and national identity.
Social inclusion	Benefits associated with cultural heritage acting as a glue to include disparate groups within society.	
Educational	All the impacts associated with educational impacts (school curricula related impacts).	
Scholarship and research	Scholastic and research outputs including academic papers, new technologies and methodologies.	<ul style="list-style-type: none"> • Output of academic papers. • Output of new technologies and methodologies.
Environmental Values and Impacts	Definition	Measurements
Pollution	Increases in visitors to a site can cause increased pollution because of the greater volume of traffic needed to bring the visitors to the site.	<ul style="list-style-type: none"> • Studies of air quality.
Site degradation	Increased visitor numbers can cause stress on the very fabric of the cultural heritage site itself.	<ul style="list-style-type: none"> • Site monitoring assessment.
Congestion	Increased visitor numbers can cause congestion within a cultural heritage site.	<ul style="list-style-type: none"> • Site monitoring assessment.

2.2 Effectiveness of Conservation Programmes in Heritage Areas

The effective conservation of heritage areas involves a multifaceted approach that encompasses various elements to ensure the preservation and protection of cultural and natural heritage sites. For the past 50 years, tremendous efforts have been made to protect the planet's biodiversity and ecosystems by implementing numerous conservation initiatives and programs. However, funding for conservation efforts in heritage area remains insufficient considering the urgency of the issue (James et al., 1999). Therefore, it is crucial to maximize the effectiveness of existing funds. As a result, key challenges for conservationists, policymakers, and donors include evaluating the effectiveness of conservation efforts and identifying the most successful approaches (Salafsky et al. 2002; Sutherland et al. 2004; Ferraro & Pattanayak 2006). While using experimental or quasi-experimental methods to design and evaluate programs can enhance the quality of evidence upon which we base decisions about future actions, there is a need for tools to help evaluate the effectiveness of conservation practices when it is not practical (politically, logistically, or scientifically) to implement these methods, which is the case in most situations.

To effectively evaluate success and effectiveness, conservation efforts should prioritize measuring and reporting on progress and achievements rather than solely on project details. In recent times, there has been a positive change from reporting on project inputs (e.g., funding, time) to monitoring implementation measures (actions taken) and quantifiable outcomes (accomplishments). Conservation takes a long time, and it can be hard to see the results of our efforts right away. This is because conservation is all about making small changes over time, and it often takes years or even decades to see the full effects. Even though we're now doing more monitoring to track changes in the environment, it can still be hard to tell how much progress we're making. There are so many different factors that can affect how well conservation is working, so we need to be patient and keep at it even when we don't see the results immediately. Hence there is also a need for tools that measure threat reduction (Salafsky & Margoluis 1999) and other intermediate outcomes, so that more and less successful approaches can be distinguished over shorter time scales and interventions can be managed adaptively (Salafsky et al. 2002; CMP 2013).

CCF follows a step-by-step approach in conservation projects, tracking progress from planning to implementation and measuring outcomes to assess the effectiveness of each step. This framework identifies seven broad categories of conservation initiatives as shown in Table 2. These categories collectively cover the majority of activities undertaken by CCF members and other conservation organizations.

Table 2 *The seven broad categories of conservation activities adopted by CCF as the basis for its evaluation framework (Kapos et al., 2009)*

Conservation Activity Type	Definition
1. Managing species and populations	Actions directly involving species themselves, such as clutch management, captive breeding, etc.
2. Managing sites, habitats, landscapes, and ecosystems	Actions directly manipulating or managing a particular site.
3. Developing, adopting or implementing policy or legislation	Actions to establish frameworks within the processes of government, civil society or the private sector that make conservation goals official or facilitate their accomplishment; may include development, implementation and/or enforcement of legislation, management plans, sectoral policies, trade regulations, among others.
4. Enhancing, and/or providing alternative, livelihoods	Actions to improve the well-being of people having impacts on the species/habitats of conservation interest, including through sustainable resource management, income-generating activities, conservation enterprise, direct incentives.
5. Training and capacity-building	Actions to enhance specific skills among those directly involved in conservation, includes both building individual skills and improving the many components of organizational capacity.
6. Education and awareness-raising	Actions directed at improving understanding and influencing behavior among people not necessarily directly involved in conservation action. Covers all forms of communication, including campaigns, lobbying, educational and publicity/awareness programs, and production of materials.

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|---------------------------------------|--|
| 7. Research and conservation planning | Actions aimed at improving the information base on which conservation decisions are made, including survey, inventory, monitoring, remote sensing, mapping, and development of new technologies. |
|---------------------------------------|--|

3. Research Methodology

This research study used a mixed methods approach, including reviews, observations, semi-structured interviews, and questionnaire surveys involving qualified residents and heritage authorities, as shown in Figure 1.

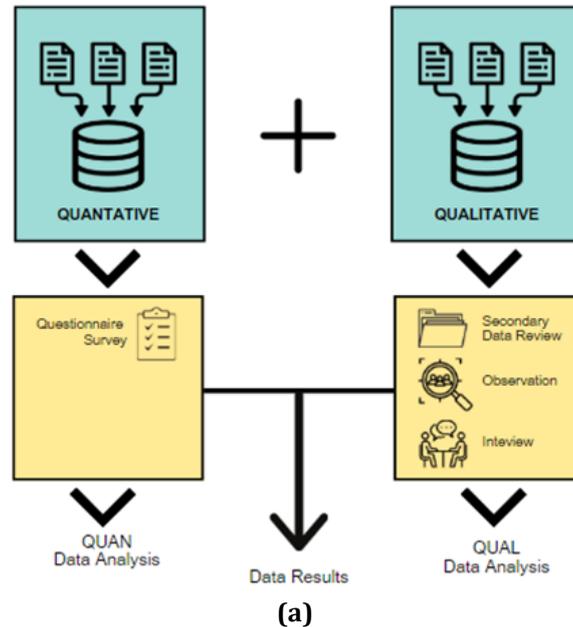


Fig. 1 (a) Data collection process (Author, 2024)

There are a total of 386 respondents who have participated in this survey. The survey involved a questionnaire survey and observations. In terms of fieldwork, the data collection process at the Melaka World Heritage Site, Malaysia, took place from 2022 to 2024. The set of questionnaires was distributed to 450 respondents, but only 386 returned with complete answers. The number of completed questionnaires constituted an overall response rate of 92%.

Primary data were collected from the study area through the use of questionnaires, interviews and observations. The questionnaire survey was a combination of multiple-choice questions and some open-ended queries. In particular, all respondents were asked about their experience and knowledge about the study area, the positive and negative impacts of WHS designation, the effectiveness of the conservation programme and their real needs to mitigate the adverse impacts of WHS designation and the betterment of the conservation programme in the study area.

To attain a holistic view, semi-structured interviews were carried out with the officials at the national and local government levels. A total of 12 semi-structured interviews (Table 3) were completed during the fieldwork activities. The interviews lasted approximately 30 minutes to 1 hour for each respondent. As a result, the relevant and necessary data related to research can be gathered to support the quantitative findings.

Table 3 List of respondents participated in the interview (Author, 2024)

No	Position	Name of Organisation
1	Director of World Heritage Division	National Heritage Department (JWN)
2	Museum Assistant	National Heritage Department (MBMB)
3.	Architect	Melaka Historic City Council (MBMB)
4.	Asst. Architect	Melaka Historic City Council (MBMB)
5.	Asst. Information Officer	Melaka Historic City Council (MBMB)

6.	General Manager	Melaka World Heritage Office
7.	Secretary	Melaka World Heritage Office
8.	Chairman	Village Development and Security Committees of Banda Kaba (JPKK)
9.	Curator	Melaka Museums Corporation (PERZIM)
10.	Founder	Melaka In Fact
11.	Member	Melaka In Fact
12.	Priest	Poyyatha Vinayagar Temple Melaka

4. Data Analysis

The analysis presented in this section herein is grounded in a rigorous empirical framework, drawing upon a diverse array of quantitative and qualitative data resources meticulously collected through questionnaire surveys, face-to-face interviews, and secondary data collection. Through statistical analysis and thematic analysis, the data has been analysed to amplify the voices of the local communities whose lives intersect with the World Heritage Site and answer the overarching research questions in the research study.

4.1 Respondents' Demographic Profile

Based on Table 3, the gender composition of the respondents was 58.55% male and 41.45% female in the study area as shown in Table 4.7. The most representative group in the Melaka World Heritage Site. The majority of the respondent's age group was 31-40 years which is 34.97%, followed by 41-50 years which is 25.13%, 21-30 years (14.25%), 51-60 years (10.62%), 18-20 years (9.84%), and 61 and above (5.18%) respectively.

In terms of education, most of the respondents from the research area had formal education with only 3.89% having no formal education respectively. Based on Table 4, the majority of the respondents from undergraduate background which is 25.39%, followed by a Secondary Education (23.32%), Diploma/Advanced Diploma (16.32%), Vocational Technical Education (15.28%), and Primary Education (15.03%) and Postgraduate (0.78%) respectively.

In the aspects of socioeconomic status, based on Table 3, the higher income level of the respondents in the Melaka World Heritage Site was RM 1,001 to RM 2,500 (47.67), followed by RM 2,501 to RM 5,000 (17.62%), RM 1,000 and below (17.1%), and RM 5,001 to RM 7,500 (3.89%) respectively. Besides, only 53 respondents or 13.73% are not working due to study purposes and retirement.

Table 4 Respondents' demographic (Author, 2024)

Profile	Melaka World Heritage Site (382)
	Frequency (%)
<u>Gender</u>	
Male	226 (58.55)
Female	160 (41.45)
<u>Age</u>	
18-20 years	38 (9.84)
21-30 years	55 (14.25)
31-40	135 (34.97)
41-50	97 (25.13)
51-60	41 (10.62)
61 and Above	20 (5.18)
<u>Education</u>	
None	15 (3.89)
Primary Education	58 (15.03)
Secondary Education	90 (23.32)
Vocational/Technical Education	59 (15.28)
Diploma/Advanced Diploma	63 (16.32)
Undergraduate	98 (25.39)

Postgraduate	3 (0.78)
<u>Monthly Income</u>	
None	53 (13.73)
RM 1,000 and below	66 (17.1)
RM 1,001 - RM 2,500	184 (47.67)
RM 2,501 - RM 5,000	68 (17.62)
RM 5,001 - RM 7,500	15 (3.89)

Meanwhile, the employment structure provides a good indication of the socioeconomic profile of its residents. It can be seen from Table 5 that the Melaka World Heritage Site respondents were involved in various types of occupations: traders, private sector, government sector and other jobs such as e-hailing riders and drivers, own-business and trishaw operators.

Table 5 Occupations of respondents (Author, 2024)

Types of Occupation	Melaka World Heritage Site (386 Respondents)
None	5 (1.3%)
Student	98 (25.39%)
Government Sector	90 (23.32%)
Private Sector	114 (29.54%)
NGO	5 (1.3%)
Trader	60 (15.54%)
Retired	6 (1.55%)
Others	8 (2.07%)
Total	100.0

4.2 Residents Perception on Socio-Economic Impacts

The perceptions of the locals can provide important information on how well heritage sites are managed and how it affects their day-to-day existence. Numerous elements, such as social and economic advantages as well as possible drawbacks from growing urbanisation and tourism, have an impact on these views. Positive impacts namely improved infrastructure and the development of jobs frequently coexist with negative impacts such as the commercialization of culture and increased living expenses.

This section delves into the dual nature of the socio-economic impacts experienced by the residents of Melaka World Heritage Site. By examining both positive and negative perceptions, we aim to provide a balanced and comprehensive understanding of the local community's views. Such an analysis is essential for formulating strategies that not only preserve Melaka's heritage but also promote the well-being of its residents.

4.2.1 Advantages

Local communities frequently experience a number of socio-economic advantages when their area is designated as a World Heritage Site (WHS). In this study, we examined how the local communities saw the benefits of being designated as such. SPSS was used to analyse the data from a survey with a five-point Likert scale (Table 6). Of the sixteen impressions that were examined, eight salient positive perceptions stood out: (i) increase in job opportunities, (ii) rise in monthly income, (iii) business opportunity, (iv) infrastructure development, (v) enhancement of the area's image, (vi) increase in the level of pride, (vii) quality of life, and (viii) increase in the skills.

Table 6 Key positive socio-economic impacts of WHS (Author, 2024)

Positive Impacts	Mean (SD)
	Melaka World Heritage Site
(a) Job Opportunity	4.43 (0.63)
(b) Monthly Income	4.41 (0.72)
(c) Business Opportunity	4.14 (0.75)

(d) Infrastructure Development	4.41 (0.79)
(e) Image of the Area	4.56 (0.69)
(f) Proud	4.57 (0.71)
(g) Quality of Life	4.21 (0.72)
(h) Skills	4.18 (0.61)

Note: Mean score value approximately close to 5 indicates a degree of impact

The community perceives the increase in job opportunities as one of the most significant benefits of Melaka's World Heritage status. With a mean score of 4.43, it is clear that residents have seen tangible improvements in employment prospects. This can be attributed to the rise in tourism-related businesses such as hotels, restaurants, and tour services, which require a larger workforce. One of the trader respondent said that "Since Melaka became a World Heritage Site, I've noticed many new job openings in the tourism sector. It's great to see more locals finding work and improving their livelihoods". Mr. Bert Tan, founder of Melaka in Fact stated that "the brand of WHS attracted many developments in the heritage site and it provides good job opportunity to the locals in Melaka City. Next, closely related to job opportunities, the perception of increased monthly income also scores highly, with a mean of 4.41. The influx of tourists has led to higher demand for local products and services, subsequently boosting the income levels of those engaged in these sectors.

Besides, the community acknowledges the enhanced business opportunities with a mean score of 4.14. The World Heritage status has provided a platform for entrepreneurs to start new ventures, particularly in the tourism and hospitality industries with the respondents telling the researcher during fieldwork activity that "There are so many new business possibilities now. I've seen friends start cafes, souvenir shops, and tour companies. It's an exciting time for small business owners". Meanwhile, infrastructure development is another highly rated positive impact, with a mean score of 4.41. The community has observed improvements in roads, public transport, and facilities, which have not only benefited tourists but also the residents themselves. Mr. Anandhan, temple priest has stated that "The roads and public facilities have seen significant upgrades. These changes have made it easier for us to navigate the city and enjoy better services".

The highest mean score of 4.56 is attributed to the improved image of the area. The World Heritage status has elevated Melaka's profile on the global stage, attracting international visitors and fostering a sense of pride among the locals. The respondents in the core zone stated that "Melaka's recognition as a World Heritage Site has put us on the map. It feels wonderful to see our city appreciated by people from around the world". Pride in the community is the most positively perceived impact, with a mean score of 4.57. This sentiment reflects a deep sense of accomplishment and identity associated with the World Heritage status. Mr. Collin Goh, an elder citizen who lived in Melaka since birth as said that "I've lived in Melaka my entire life, and seeing it become a World Heritage Site fills me with immense pride. Growing up here, I've always appreciated our rich history and unique culture, but now the world recognizes it too. It's an honor to walk the same streets my ancestors did and share our heritage with visitors from all over. The World Heritage status isn't just a label; it symbolizes our identity and the legacy we're preserving for future generations. Every time I see tourists admiring our city, I feel a deep sense of pride knowing that my hometown is cherished by so many."

The designation of Melaka as a World Heritage Site has brought about significant improvements in the quality of life for its residents. With a mean score of 4.21, the local community perceives noticeable enhancements in various aspects of their daily lives. These improvements can be attributed to several factors, including better infrastructure, increased economic opportunities, enhanced public services, and a stronger sense of community. The locals in the core zone stated that "Our quality of life has definitely improved. Better facilities and more economic opportunities mean we can enjoy a more comfortable lifestyle."

Lastly, the perception of skills development has a mean score of 4.18. The World Heritage status has led to various training programs and opportunities for locals to acquire new skills, particularly in areas related to tourism and heritage management. The heritage authorities have carried out various programs in related to heritage with the sole aim of promoting the World Heritage Site and benefiting the locals to. For example, MBMB carried out Heritage Conservation Workshop which can helps to learn about heritage building conservation among the participants.

4.2.2 Disadvantages

Melaka inscriptions as World Heritage Site (WHS) undoubtedly has brought a lot of rewards like increased tourism, recognition on the international scene as well as economic development. However, these positive outcomes have come with significant negative socio-economic impacts faced by the local populations. These impacts which are often overshadowed by the benefits can greatly affect residents' daily lives and their states of being. This research will highlight different factors such as housing affordability, living costs and community dynamics within Melaka that contribute to evaluate and explore the consequences related to socio-economy after

designation of WHS in Table 7. By understanding these negative effects, policy makers plus stakeholders can better respond to challenges experienced by local communities and work towards heritage conservation strategies that are sustainable and inclusive too.

Table 7 Key negative socio-economic impacts (Author, 2024)

Negative Impacts	Mean (SD)
	Melaka World Heritage Site
Higher Traffic Volume	4.26 (0.91)
Higher Rate of Rental	3.80 (1.30)
Difficult to Buy Property Due to Higher Prices	3.79 (1.36)

Note: Mean score value approximately close to 5 indicates a degree of impact

Higher traffic volume is considered as the most damaging fallout of the World Heritage Site designation with the highest mean score of 4.26. As a result of increased tourism activities, there are more cars and other transport vehicles on the roads which cause heavy traffic jams and lengthen the time taken to reach different places by local people. It impacts not only on everyday life but also leads to pollution rises and social stress among neighbours. The respondents' high level of agreement emphasizes that visitors overload requires good infrastructure and effective ways to manage passenger traffic flow throughout an area.

Next, with a mean of 3.80, the second most important is having more rentals due to WHS status. The place is increasingly being desired by tourists and expatriates making rents go up making it hard for the locals to afford accommodation for their business. This problem is difficult, especially for startup traders who want to start renting. Short term accommodations have been on high demand thus worsening this state of affairs which in turn leads to close up their premises.

Another major negative effect is the difficulty in purchasing real estate which is very expensive, having a mean score of 3.79. When an area gets designated as a World Heritage Site, there is always a corresponding increase in property prices due to investors' interests and their quest for properties located in such high-end areas. This makes it even more difficult for residents, especially young first-time buyers and people of average income levels to afford owning a home. Such economic disparities can result in social stratification and community fragmentation.

4.3 Residents' Perception on the Effectiveness of the Conservation Programme

The Melaka World Heritage Site, a representation of the historical and cultural richness of Malaysia, long stays central to both national pride and global admiration. Listed by UNESCO as a key heritage site, its safeguarding and upkeep are critical not only for historical continuity but also for tourism enhancement and community identity reinforcement. Nonetheless, triumph in preserving efforts majorly relies on local residents' support and views who exist within proximity to these heritage zones.

The preservation agenda in Melaka sets eyes on guarding its distinct ancient architecture, cultural customs, and natural sceneries. Efforts include renovating old buildings and landmarks while advocating for cultural legacy through festivities and instructional activities. These movements endeavour not just to sustain the physical and cultural scene but also aim at elevating residents' life quality and bolstering the local economy via sustainable tourism.

This section examines Melaka residents' opinions regarding how effective these conserving actions are. It inspects their attitudes towards multiple facets: from local heritage safeguarding impacts to community participation in conservation schemes in Table 8, alongside local authorities' roles in Table 9. The total number of respondents who responded was shown in Figures 2 and 3. By scrutinizing these perspectives, deeper comprehension regarding the current conservation program's success can be gleaned, thus pinpointing areas for improvement and ensuring Melaka's priceless heritage preservation for progeny.

Table 8 Local community perception on the impacts of the conservation programmes (Author, 2024)

Perception Indicator	Mean (SD)
	Melaka World Heritage Site
D3: Local Participation in the Programmes	4.10 (0.71)
D4: Helps to Maintain Authenticity of the Area	4.22 (0.94)
D6: Increase Image of the Area	4.23 (0.83)
D7: Helps to Preserve the Area	4.15 (0.81)

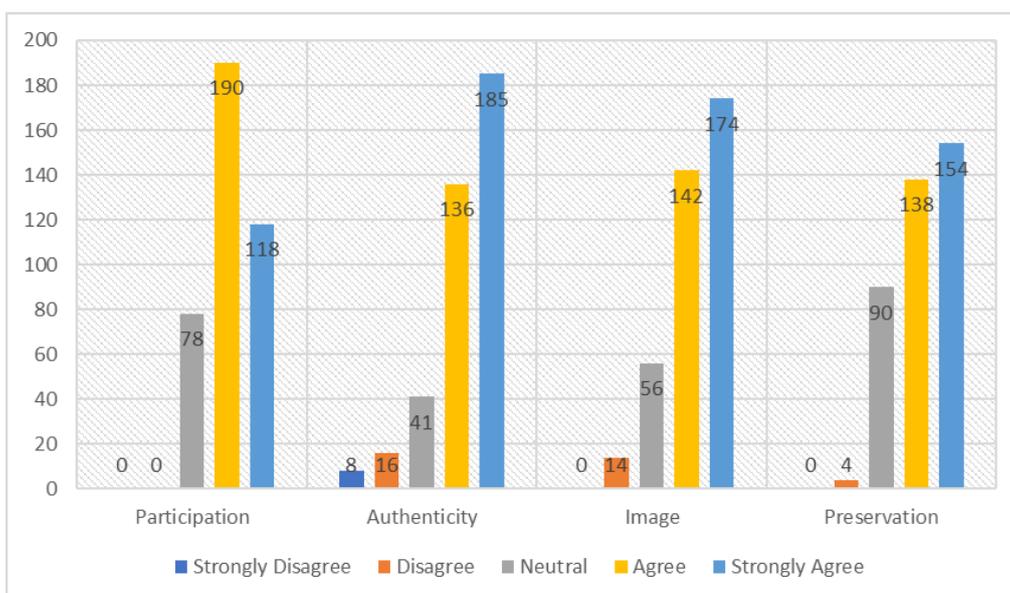
Note: Mean score value approximately close to 5 indicates a degree of perception

Based on Table 8, the first perception indicates on the local's willingness to participate in the heritage conservation programmes at the Melaka World Heritage Site. The analysis indicates a mean score of 4.10 while the standard deviation is 0.71 which emphasises that the locals agree with the statement that they need to join the conservation programmes for the benefit of the locals and the heritage site. A respondent said "I think it's crucial for us to be involved in these programmes. It gives us a sense of ownership and responsibility". Meanwhile another respondent also provide his opinion by said "Absolutely! Our participation ensures that the conservation efforts are aligned with our community's needs and values".

Next, the second perception indicates on authenticity of the area. A mean score of 4.22 signifies that respondents agree that the conservation programme helps in maintaining the authenticity of the heritage area. The slightly higher standard deviation compared to D3 suggests some variation in responses but still indicates overall agreement. The respondents believe that the heritage conservation programme as during the fieldwork activity, the researcher met locals at the Stadthuys building. In that conversation, the local said that "the authenticity of our heritage is what makes Melaka unique. The conservation programme really helps in preserving that". Furthermore, another respondent told that "I agree. The programme ensures that any restoration work respects the original architecture and cultural significance".

The third perception indicates on the image of the area. With a mean of 4.23, it is clear that respondents agree that the conservation programme helps to enhance the image of the heritage area. The standard deviation here shows a moderate spread of responses, indicating strong but not unanimous agreement. The respondent said that "I've noticed that since the programme started, more tourists are interested in our heritage sites. It definitely boosts our city's image". However, some community members may feel that the benefits of an enhanced image, such as increased tourism, do not equitably reach all locals. Those who do not directly benefit from tourism might be less inclined to agree. The respondent told to the researcher that "While I see more tourists around, I don't feel like it's benefiting everyone in the community. Some local businesses are thriving, but others are left out".

The fourth perception indicates on the preservation of the area. The mean score of 4.15 suggests that respondents agree that the conservation programme helps to preserve the area. The standard deviation is relatively consistent with D3 and D6, indicating a general agreement with some variability. The respondent's feedback was "Preservation is key to keeping our heritage alive for future generations. The programme is doing a great job in that regard. I couldn't agree more. It's important that we continue to support these efforts to ensure our heritage is protected". The general agreement with some variability happened due to the Awareness and engagement levels can vary among community members. Those more involved in or aware of the conservation efforts might have a more positive view than those less informed or engaged. As evidence, a respondent informed the researcher during the conversation that "I haven't been as involved, so I'm not sure about all the efforts being made. From what I see, it's a mixed bag".



(a)

Fig. 2 (a) Total number of respondents perceptions on the impacts of the conservation programmes (Author, 2024)

Table 9 emphasises the local's perception towards the local authority's role. In order to measure the perception, the five-point Likert scale was used in this study. The first criteria (D1) is the explanation or briefing

about the conservation to the local communities. The mean score for this indicator was 4.39 with a standard deviation of 1.09. This high mean score suggests that, on average, respondents agree that the local authority is effective in providing clear briefings. The relatively low standard deviation indicates that there is moderate agreement among respondents on this point. During fieldwork activities, a local community stated that "the briefings by the local authority are very informative and help us understand the importance of heritage conservation". Meanwhile, another respondent told that "I always feel well-informed after attending the community meetings organized by the authorities".

Table 9 Local community perception towards local authority role (Author, 2024)

Perception Indicator	Mean (SD)
	Melaka World Heritage Site
D1: Local Authority Role in Information Briefing	4.39 (1.09)
D2: Local Authority Role in Invite Locals in Decision-Making Process	2.60 (1.38)

Note: Mean score value approximately close to 5 indicates a degree of perception

The second criteria (D2) is the evaluation of the level of people who live in that community who did feel free to take part in the conservation planning process. The indexed value for D2 is significantly lower at 2.60 consistently, with a dispersion of 1.38. This lower mean score indicates that respondents generally perceive a lack of invitation to participate in the planning process, with many respondents either disagreeing or remaining neutral on this issue. The higher standard deviation suggests a greater variability in responses, reflecting differing opinions among the community members. This conclusion provides empirical evidence for the need for promoting a more respectful and sharing of ideas processes that can display how community members can be encouraged to be more inclusive and participative in planning. In the conversation with the respondents in the study area, a respondent said that "I wish the local authority would involve us more in the planning stages. We have valuable insights to offer". Another respondent told that "It feels like decisions are made without considering our input. Greater community involvement is needed".

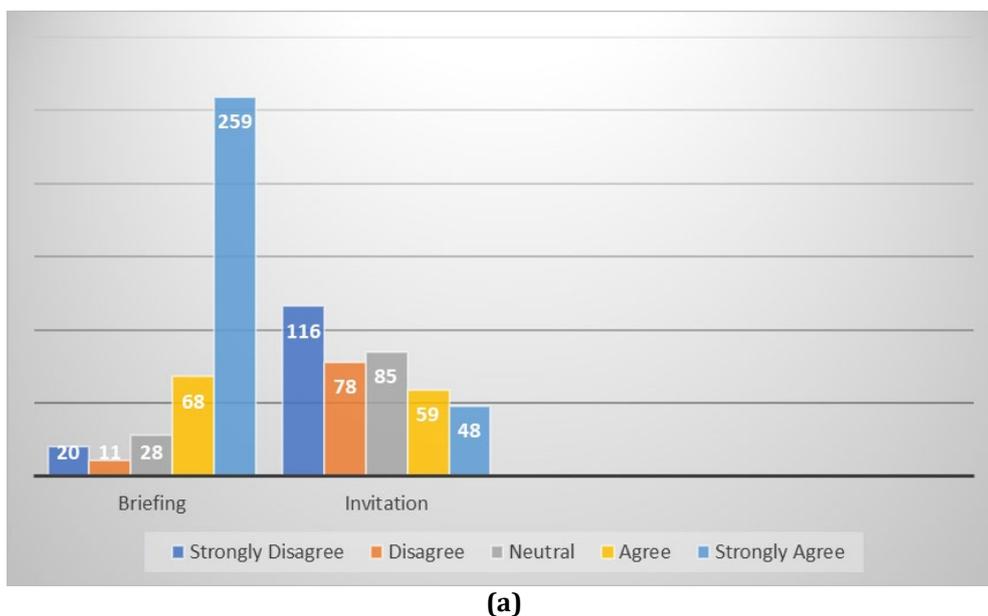


Fig. 3 (a) Total number of respondents towards local authority's role (Author, 2024)

5. Discussions

This research study was undertaken Melaka World Heritage Site as a case study. With the amazing and unique location, the key findings were derived from the issues and discussions, socio-economic impacts of WHS designation, the implementation of Policy, Project and Programme (3Ps), local community perceptions, and the effectiveness of the conservation programme. In a nutshell, the analysis and findings obtain from this study could be useful to determine the success of the community understanding and participation in the heritage-related activities that applied in the research area.

5.1 Socio-economic Impacts of World Heritage Site (WHS) Designation on Local Communities

Previously, the general impacts of world heritage site designation on local communities in different continents has been listed and described in the literature review chapter section. However, in this section the researcher will be discussing the positive and negative socio-economic impact WHS in Melaka world heritage from the local's point of view that has been collected through questionnaire survey during fieldworks. Based on the survey result, the researcher has been identified and classified both positive impacts and negatives whereby the positive impacts were (i) increase in job opportunities, (ii) rise in monthly income, (iii) business opportunity, (iv) infrastructure development, (v) enhancement of the area's image, (vi) increase in the level of pride, (vii) quality of life, and (viii) increase in the skills. Meanwhile, the negative impacts were: (i) higher traffic volume, (ii) higher rate of rental and (iii) difficult to buy property due to higher prices.

5.1.1 Positive Impacts

On the positive side of socio-economic impacts, one of the most significant positive impacts of WHS designation in Melaka is the increase in local pride. Being recognized as a heritage site of global importance has instilled a strong sense of pride among residents. This pride is reflected in the community's heightened interest in their own heritage and culture. Locals feel a renewed connection to their city's rich history and unique traditions, which fosters a sense of belonging and responsibility to uphold and celebrate their heritage. This pride is not only personal but also communal, as residents collectively embrace their city's WHS status, viewing it as a honour that puts Melaka on the world map.

The WHS designation has also driven an increase in tourism, which has had a notable positive economic impact on the community. The surge in visitor numbers has stimulated growth in local businesses, particularly those in the hospitality, food, and retail sectors. Small businesses, such as handicraft shops and local eateries, benefit directly from the influx of tourists seeking authentic local experiences. This growth in tourism has, in turn, created more job opportunities for locals, especially in customer service and hospitality roles. For residents without advanced educational qualifications, tourism-related jobs offer accessible employment options, supporting economic well-being for many families.

Another positive effect of WHS designation is the enhanced image of Melaka, both locally and internationally. As a recognized heritage site, Melaka now enjoys a reputation as a cultural and historical hub, attracting not only tourists but also investors. This improved image has increased the city's appeal, making it a desirable location for businesses and cultural events. Investors are more inclined to support projects within Melaka's heritage zones, believing that the city's prestigious status will attract a steady stream of visitors. This improved reputation also fosters a greater sense of pride among locals, who see their city respected and valued on the world stage.

An additional positive economic impact is the rise in residents' monthly income, particularly for those engaged in tourism-related industries. As tourism grows, businesses generate higher revenue, leading to increased earnings for both business owners and employees. Local entrepreneurs who operate small businesses in food, art, and cultural services find new opportunities to expand their offerings to cater to tourists, translating into increased income. This boost in revenue contributes to improved quality of life for many residents and supports the community's economic stability.

5.1.2 Negative Impacts

WHS designation has also introduced challenges, particularly in terms of increased traffic volume. The surge in tourist numbers has created congestion in Melaka's heritage zones, making daily commuting difficult for residents. Crowded streets and longer travel times are a source of frustration for locals who experience disruption in their routines. Additionally, increased vehicle emissions from higher traffic levels contribute to air pollution, posing health risks and impacting the environment. This congestion issue reflects the tension between preserving heritage areas as functional living spaces and catering to the demands of tourism.

Another negative impact is the higher rate of rental prices within the WHS area. As Melaka's popularity grows, so does the demand for accommodations, pushing rental prices higher. This trend is problematic for local residents, particularly low- and middle-income families, who may struggle to afford rent in their neighborhoods. Some landlords choose to prioritize short-term rentals that cater to tourists, which often offer more lucrative returns than long-term leases. This shift in housing priorities has led to the displacement of some long-time residents, disrupting the social fabric of heritage neighborhoods and threatening the stability of local communities.

Additionally, the rise in property prices has made it increasingly difficult for locals to buy homes in Melaka's heritage zones. Real estate prices have soared as a result of increased interest from investors and developers looking to capitalize on Melaka's WHS status. This trend has created a financial barrier for residents hoping to purchase property in the area. For many locals, homeownership within the WHS site has become unattainable,

leading to frustration and a sense of displacement as the city center becomes dominated by tourism-focused developments. This dynamic threatens the long-term sustainability of the community, as local families face challenges in securing homes in their own heritage city.

5.2 Local Communities' Participation Levels in the Conservation Programmes' Decision-Making Process

Apart from the socio-economic impacts of the World Heritage Site designation objective, the researcher also probes the local communities' participation levels in the conservation programmes' decision-making process through the locals' perception towards the effectiveness of the conservation programmes and role of the local authority in this issue.

The results offer valuable insights into how local communities perceive their engagement in conservation initiatives and the role of local authorities in the Melaka World Heritage Site. Generally, the community holds a favorable view of conservation initiatives, acknowledging their success in preserving heritage, maintaining the area's authenticity, and enhancing the city's reputation as a World Heritage Site. These perceptions highlight the effectiveness of these initiatives in protecting the site's cultural and historical significance while also boosting its prestige and attractiveness.

The community recognizes their role in these initiatives, indicating some level of collaboration with local stakeholders. However, while the feedback emphasizes the successes of conservation efforts, it also suggests a need for greater inclusiveness. Enhancing mechanisms for community participation could improve their sense of ownership and dedication, promoting a more cooperative approach to conservation.

Regarding the role of local authorities, their initiatives to provide information to the public are viewed positively. This reflects a commendable effort to promote transparency and increase awareness of conservation activities. Effective communication is vital for building public trust and fostering community support for such efforts.

Nevertheless, there is a considerable perception that local authorities do not sufficiently encourage community members to engage in decision-making processes. This indicates a significant gap in participatory governance, which can impede the formation of robust partnerships between authorities and the community. Without meaningful engagement in decision-making, local communities may feel marginalized, diminishing their sense of ownership and involvement in the conservation process.

To remedy this situation, it is crucial for local authorities to implement a more inclusive approach that genuinely integrates community voices in the planning and execution of conservation initiatives. Approaches such as public consultations, workshops, and open forums could offer opportunities for dialogue and cooperation. By closing the gap in participatory governance, authorities can strengthen community partnerships, ensuring that conservation efforts are not only effective but also sustainable over time.

6. Conclusion

This research has been conducted to evaluate the socio-economic impacts of world heritage site designation and the effectiveness of the conservation programme from the point of view of local communities. The overall analysis of the research shows that there are many key positive socio-economic impacts gathered by the research namely, increases in job opportunities, monthly income, business opportunities, infrastructure development, better image of the area, proud/pride among the community towards the research area, better quality of life for the local community, and increases in local skills. Meanwhile, the negative impacts were higher traffic volume, higher rate of rental and difficulty to buy property due to higher prices. In terms of effectiveness of conservation, the local communities are highly satisfied and express positive perceptions. Nevertheless, the locals were not satisfied with the act of local authority not inviting them during the planning stage of conservation programme. Overall, the authorities need to provide adequate attention the initial stage of implementation of 3Ps (Policy, Programme and Project) in the area under study.

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Conflict of Interest

Authors declare that there is no conflict of interests regarding the publication of the paper.

Author Contribution

The authors contribution to the paper as follows: **study and conception and design:** Indera Syahrul Mat Radzuan, Yahaya Ahmad, Prasad Thirunavukkarasu; **data collection:** Prasad Thirunavukkarasu, Indera Syahrul Mat Radzuan; **analysis and interpretation of results:** Prasad Thirunavukkarasu, Seow Ta Wee; **draft manuscript preparation:** Prasad Thirunavukkarasu, Indera Syahrul Mat Radzuan, Zarina Shamsudin. All authors reviewed the results and approved the final version of the manuscript.

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