

PRESERVING HERITAGE AND ENHANCING VISITOR EXPERIENCE: AN ANALYSIS OF VISITOR IMPACT MANAGEMENT (VIM) PRACTICES AT IPOH HERITAGE TRAIL

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Abstract: *Heritage trails are designated trails that connect major significant pieces of a historical area. It is advertised to attract tourists for educational purposes and ultimately, boost the economic sector of the area. However, the local government may design, build and manage the range of the heritage trail settings, but it is always dependent on how tourists utilize the trails and achieve the intended advantages. The aim of this study is to determine the effects of visitor impact management practices (VIM) on visitors' experiences and satisfaction concerning heritage conservation in Ipoh Heritage Trail, Perak and how the information obtained could be utilized for the purpose of heritage conservation. For this purpose, researchers have discovered two attributes for visitors' satisfaction which are facilities (FA) and human environment (HE) followed by visitors' experience involving four main attributes which are environmental impacts (ENI), socio-cultural impacts (SCI), visitor education (VE) and existing visitor impact management (VIM). All attributes were measured using the socio-economic profile of visitors. The study found that VIM is positively correlated with attributes measured in visitors' satisfaction and visitors' experiences. However, heritage settings could be improved to implement the sustainability of heritage tourism settings to promote heritage conservation while still enhancing visitors' experiences. This study provides insightful data and information on the heritage tourism setting especially in the planning of heritage trails to be taken into consideration in the decision-making process for heritage tourism.*

Keywords: *visitor impacts, visitor experience, heritage tourism*

Introduction

The creation of heritage trails mainly based upon different themes and purposes with the goal of operating as an interconnecting trip to allow a journey visiting various landmarks, attractions and other tourism businesses by providing interpretive panels about the site along the journey (Nayan, N.M. et. al., 2021). A trail is typically defined as a linear stretch that stands out for having particular themes and by providing information and narrative storytelling along the way, heritage trails serve as established routes that connect all the points of interest (Macleod, N., 2016; Nayan, N.M. et. al., 2021). The introduction of heritage trails is believed to contribute to the development of heritage tourism in the place. Heritage trails can increase awareness about the local heritage and build interest in heritage conservation, promoting the culture of the area to tourists and providing a ready-made recreational and educational platform through the self-guided trail. Heritage trails experiences could be guided tours, self-guided tours or a combination of both.

In many cases, the development of heritage trails aimed to promote accessibility for leisure and recreation purposes, promote image identity for the area and explore the opportunities for heritage conservation (Hayes, D., 2018; Mcleod, N., 2021). Heritage trails can also promote the existence of the historical regions and their cultural heritage buildings, enhancing interest in heritage conservation and facilitating recreational and educational activities among the community (Purwantiasning, A.W. et. al., 2023). Nayan N.M. et. al. (2021) adapted from Timothy & Boyd (2015) highlighted four key features of heritage trails should serve: i) to promote heritage values conservation by providing educational opportunities; ii) to enhance a sense of place; iii) to foster economic sector from the tourism industry, and iv) to achieve political aims.

The environmental and cultural dimensions of heritage trails should be carefully planned to maximize visitors' experiences and the sites should have easy accessibility, be resilient to visitation and properly managed by the local authority (Mcleod, N., 2021). Therefore, the aim of this study is to investigate the effects of VIM practices towards visitors' satisfaction and experiences while visiting Ipoh Heritage Trail. The application of VIM practices has been widely used in different settings including nature-based tourism destinations. A study conducted by Velmurugan, S. et. al. (2021) and Ciocanea, C.M. et. al. (2016) used the VIM practices to determine the influence of the practices towards visitors' satisfaction for protected area management such as national park.

Literature review

The literature review section started with a brief explanation of the development and purpose of the heritage trail as a heritage-based tourism destination. Next, VIM practices are explained in detail, and how the theoretical framework was developed for the purpose of this study to determine visitors' satisfaction and experience while being on the heritage trail.

Heritage Trail as Heritage Tourism Destination

Heritage-based tourism has become an increasingly popular niche within the tourism industry, attracting visitors seeking to explore and experience cultural and historical sites. A heritage trail is one form of heritage-based tourism that features well-preserved architecture, museums,

landmarks or other cultural sites that offers insights into the history and traditions of a place. Heritage trails play an important role in promoting sustainable tourism and more detailed case study on the evaluation of tourism activities and users' experiences in the trails could be useful to encourage sustainable efforts in the tourism research community (Mclead, N., 2021). However, the cultural and natural tourism industry faces a significant challenge in managing its activities due to its potential negative impacts on biodiversity conservation. Site managers need to carefully evaluate and balance the advantages and disadvantages of tourism in such areas. Additionally, it is crucial to establish means for local communities to benefit from conservation-linked tourism, thereby demonstrating the economic worth of conserving natural resources (Candrea, A.N. et. al., 2009).

There is a growing trend among tourists to prioritize environmental protection and seek out destinations with high levels of environmental conservation and quality. In addition, tourists increasingly prefer simple, efficient and pleasant services and tend to favor unspoiled and less crowded destinations. Heritage tourism is also gaining traction, although the pace of its growth is not yet clear and requires further quantitative data to validate the trend. Stakeholders can plan a critical role in identifying problems that may have been overlooked by industry experts (Pedersen, A., 2022). Candres, A.N. et. al. (2009) highlighted one of the primary challenges in managing protected area is striking a balance between preserving them with minimal human impact and providing zones for recreational and educational purposes. Implementing a visitor management plan is an effective way to minimize conflicts that may arise between goals. By carefully managing visitor activities and minimizing their impact on the environment, site managers can help to ensure protected areas remain health and sustainable for future generations.

Visitors' Satisfaction and Experiences in Heritage Tourism

The cultural material heritage of a city has increasingly become a significant factor in attracting visitors. To ensure visitor satisfaction, proper management of the heritage is crucial both during and after the visit, as it can help enhance visitor expectations beforehand and the perceived quality afterward. Tourists form preconceived notions of a destination based on the information they gather before their visit, and their actual experience and the actual cultural and heritage quality. These perceptions and sensations ultimately converge to determine visitor satisfaction. Therefore, it is important for site managers to effectively manage cultural heritage to improve visitors' experience and increase the attractiveness of a city as a tourism destination. Mclead, N. (2021) stressed out the importance of analyzing visitors' experiences of the trails to ensure the trails' objectives are being met and could be conducted from a structured questionnaire form to investigate the usage patterns, mode of transport, visitors' motivation and the level of satisfaction. Furthermore, Purwantiasning A.W. et. al. (2023) found out that the experience of the architectural spaces of each person who explores the journey of heritage trails might be different from each other based upon the person's own understanding and perception.

The anticipated level of cultural quality by visitors has a positive and noteworthy impact on the perceived cultural quality. The perceived value of a visit plays a crucial role in determining the visitors' satisfaction with a heritage site. To increase visitor satisfaction, providing information about the history and culture of the site is essential. Positive factors such as satisfaction, quality and expectations can influence the decision of visitors to return and recommend a destination. Visitor satisfaction is considered an indicator of the quality of a visitors' experience (Moore, S.A. et. al., 2015). To ensure visitors' satisfaction, managers must understand the expectations and experiences of visitors and use this knowledge to provide a positive experience for them

(Agyeman, Y. et. al., 2019). Meeting visitors' expectations and providing a satisfactory experience can lead to financial benefits, increased loyalty and repeat visits to protected areas (Deng, J. et. al., 2007).

A study conducted by Akama, J.S. et. al. (2003) assessed the tourists' satisfaction with the quality of natural attractions and facilities offered at two East African domestic parks. Tourists tend to perceive transportation, shopping centres and cultural activities as important features of a destination that contribute to their overall satisfaction. It is crucial to gather data on tourists' attitudes and preferences towards facilities and services to enhance destination management. Understanding what visitors value in term of amenities and activities can help site managers make informed decisions about resource allocation and service improvement, ultimately enhancing the visitors' experiences (Junus, S.Z., 2020). Information on tourists's satisfaction to the visited sites is important for managing protected area as the factor contribute to the development of sustainable tourism (Petrick, J.F., 2003). With a high level of satisfaction, it influences the revisit intention of the place (Tsiotsou, R. et. al., 2006). However, external factors including socio-demographic profile of tourists, visitation patterns, motivations of visit and the level of satisfaction are among the elements should be considered to facilitate decision making process for tourism management (Lee, A.K.Y. et. al., 2018).

Visitor Impact Management (VIM) Practices for Heritage Tourism

Trail developers should bear the responsibility of analyzing the impacts of users on the planning of heritage trails and determining the carrying capacity by deciding the perfect measurement for environmental, psychological, managerial and social-cultural indicators (McLeod, N., 2021). Garrod, A. et. al. (2000) found out that a few issues are happening as a result from overcrowding visitors at heritage sites such as trampling, pilfering, traffic congestion and there are concerns about heritage conservation purposes. Cressford, G.R. (2000) listed five main social impacts of managing wilderness recreation areas namely inappropriate behavior, conflicts, different values for different activities and settings, crowding issues and variety of activity perception. However, this social impact may be caused by physical and social conditions at the site that were formulated to deliver different recreational experiences. Therefore, investigating visitors' satisfaction is a key point in determining management plans, especially for recreation and tourism activities (Cressford, G.R., 2000).

VIM practices are a tool that focuses on the importance of managing visitors' impacts in different types of settings, by reducing negative impacts from various tourists' activities and increasing the positive impacts (Velmurugan, S. et. al., 2021). This is a comprehensive framework in getting insights to tackle overcrowding issues for tourism industry and minimizing utilization of natural areas by investigating visitors' perceptions and satisfaction (Velmurugan, S. et. al., 2021). Cressford, G.R. (2000) stated that VIM measurement practices are directly related to the satisfaction among tourists and the consequences of the future plan by managing the socio-cultural impacts of the place. By understanding visitors' perception of environmental impacts, it is essential to provide high-quality of recreational services in nature-based tourism destinations.

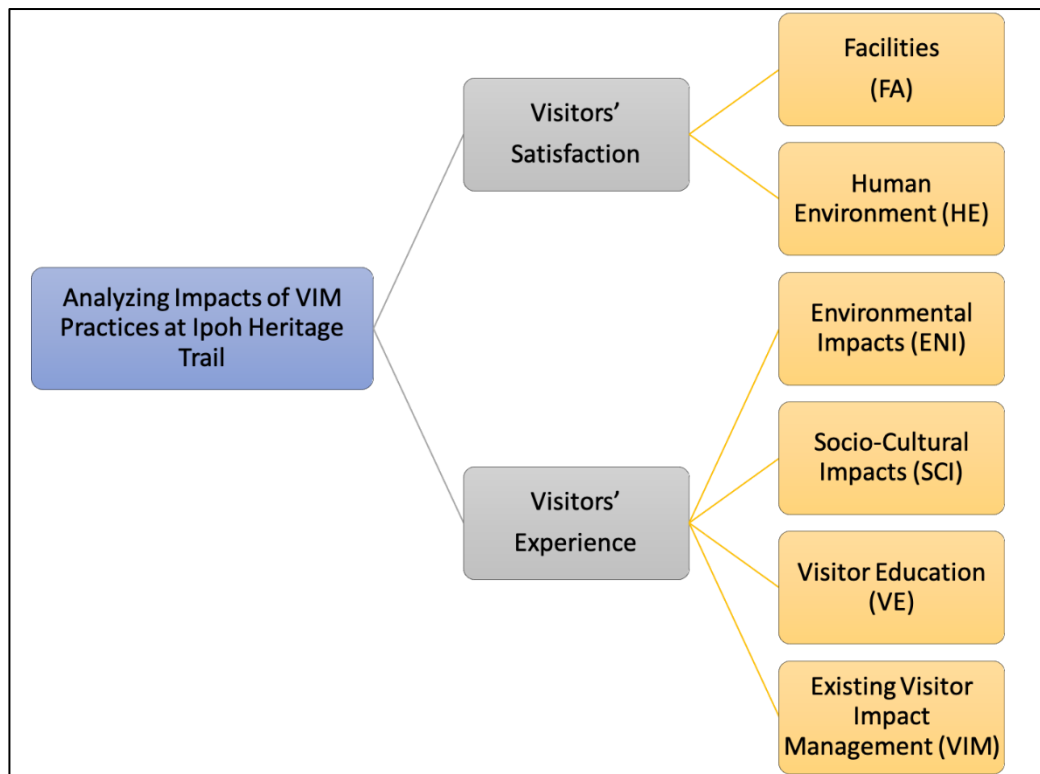


Figure 1: Theoretical framework in analyzing VIM practice on visitors' satisfaction and experience at Ipoh Heritage Trail
(Adapted from: Velmurugan, S. et. al., 2021)

Research Methodology

Case Study

The Ipoh Heritage Trail is a walking tour that takes visitors through the historic and cultural sites of Ipoh, a city located in the state of Perak in Malaysia. The trail covers a distance of about 4 kilometres and includes around 30 heritage sites, ranging from temples and museums to historical buildings and landmarks. The trail starts at the Ipoh Tourist Information Centre, which serves as the starting point for visitors to collect maps and information about the trail. From there, visitors can follow the trail, which is marked with signposts, and explore the various heritage sites at their own pace. Some of the notable landmarks throughout the trail such as the Ipoh Railway Station, Royal Ipoh Club, St. Michael's Institution and The Chartered Bank, Ipoh.

Due to the increasing number of visitors, the management of the trail faces challenges in preserving its heritage while ensuring that visitors have a satisfactory experience. Therefore, the Ipoh Heritage Trail serves as an excellent case study to examine the impact of VIM practices on visitor satisfaction and experience in a heritage site.



Figure 2: Ipoh Heritage Trail map
(Source: Ipoh City Council, 2021)

Research Design and Sampling Size

The study analysed the impacts of VIM practices on visitors' satisfaction and experience at the Ipoh Heritage Trail using a quantitative research design. Primary data was collected through a survey questionnaire administered to a sample of 218 visitors. A descriptive research design was applied in order to obtain information on the visitors' satisfaction and experiences at Ipoh Heritage Trail. In order to achieve the objectives of the study, variables used in the questionnaire were recognized from the secondary data collection including the application to the national park management and the hypothetical relationship being considered in the process of developing the structured questionnaire. Secondary data was also collected through a review of literature on visitor management and satisfaction in protected area including national park and heritage sites. Data analysis involved the use of descriptive and inferential statistics, including frequency distribution, means, standard deviation and regression analysis.

The structured questionnaire used in the study comprised four sections that section A is about the demographic profile of respondents, section B is about visitors' satisfaction towards VIM practices at Ipoh Heritage Trail which are facilities (FA) – five items and human environment (HE) – five items followed by Section C on visitors' experience including environmental impacts (ENI) – five items, socio-cultural impacts (SCI) – 3 items, visitor education (VE) – 3 items and existing visitor impact management (VIM) – 3 items and lastly, a section included an open-ended question for respondents to write their viewpoints to improve the personal experience while visiting the place. Sections B and C were evaluated based on the five-point Likert scale (Strongly Disagree – 1, Disagree – 2, Neutral – 3, Agree – 4, Strongly Agree – 5).

Simple random sampling was applied to select the respondents and the selection was based on their history of being a visitor of Ipoh Heritage Trail, have interests in heritage tourism and their cooperation were acquired to participate in the data collection process. The calculation of sample size is based on the Krejcie & Morgan (1970) formula, however, due to the time limitation of the study, a total of 218 respondents were collected for this study. The collected data for this study were subjected to a descriptive analysis approach for further analysis. To measure the socio-economic profile of respondents, percentage analysis was employed. Mean

scores were calculated to assess visitors' satisfaction with the existing VIM practices at Ipoh Heritage Trail. The potential influence of socio-economic factors on VIM practices was evaluated using ANOVA, while the correlation between variables was determined using Pearson Correlation. Additionally, multiple regression analyses were conducted to examine the overall satisfaction assessment of respondents and identify any significant influences of independent variables on the dependent variable.

Data Analysis and Discussion

Analysis of data was conducted using SPSS software and reliability test and Pearson correlation test. All instruments in the questionnaire were tested out using a pilot test. Analysis of the data is based upon the previous findings from the studies that applied VIM practices for nature-based tourism destination since the application of VIM practices in assessing visitors' experiences at heritage-based tourism sites are very limited.

Reliability Test

To assess the reliability of the data collected for this study, Cronbach's Alpha was calculated. Cronbach's Alpha coefficient ranges from a minimum value of 0.87, indicating varying levels of reliability across different items of the questionnaire and can be confidently utilized for analysis and interpretation in this study of VIM practices at the Ipoh Heritage Trail.

Socio-Economic Profile of Respondents

Velmurugan, S. et. al. (2021) highlighted the potential factors that influence the needs, wants and demands in choosing the destination might be determined by the socioeconomic profile of tourists/ visitors. The socio-economic profile of respondents was presented in Table 1. A total of 218 respondents were involved in the data collection process and all respondents were approached directly on the site by researchers. The data revealed a fair distribution among male and female respondents but male respondents were leading by 10%. Motivation and awareness factors in visiting the heritage trail might be the reasons for the differentiation numbers between male and female visitors. The age distribution of respondents is leading with the age groups of 18 – 30 years old at 41.7% followed by age groups of 31 – 40 years old representing 35.8%, 15.6% represented by age group of 41-50 years old and lastly, age group of 51 years old and above with 6.9% only. Above data showed that people from age group of 18 – 30 years old is the majority of visitors who are showing their interest in visiting the heritage-based destination. The findings showed similarities to a study conducted by Velmurugan, S. et. al. (2021) who found that people in the age group of 25 – 35 years old are showing interest in nature-based tourism destinations. This is a shred of good evidence for planners and managers in choosing their target market of tourists, especially for nature and heritage-based tourism destinations.

Additionally, it is believed that families with children are the majority of people visiting the heritage trail, representing 68.3% of the respondents. Family-friendly facilities such as baby rooms, kids' toilets, more benches or rest areas are among the features that should be taken into consideration in planning heritage-based tourism. The level of education is the good parameter in regulating the desire to travel and the destination preferences (Velmurugan, S. et. al., 2021). This is supported by the data found in this study as the highest educational qualification among respondents are undergraduate students with a record of 58.7%, followed by postgraduate students with 33% and another 8.3% are represented by respondents having secondary school educational qualification. From the data collected, it is disclosed that the majority of respondents are working in the private sector 29.8%, students with 22% and followed by government sector 22.5%. It is concerned that visitors who are working in the private sector

might have more flexible time in visiting the trail, people who are working in the government sector might use the opportunity during weekends or public holidays to spend their leisure time and students might find the place as an interesting place to spend their free time with family or friends.

Lastly, social media was proven as the main platform in promoting the site as 47.2% of respondents know about the place after finding out the related information in social media such as Facebook, Twitter and TikTok while 38.1% of respondents hear about the place from their friends. On top of that, the study revealed that the purpose of visiting the heritage are mainly for shopping which was represented by 58.7% of respondents, 25.7% of respondents hoped to learn something about the heritage and 13.3% of respondents were visiting the place for sightseeing purpose only. The data showed the possibility of tourists willing to spend more money on visiting heritage-based destinations and it is a good opportunity to boost the economic sector of the area.

Table 1: Socio-economic profile of respondents

Socio-economic factors	Particulars	Percent (%)
Gender	Male	55.0
	Female	45.0
Age	18 - 30	41.7
	31 - 40	35.8
	41 - 50	15.6
	51 and above	6.9
Marital status	Single	31.7
	Married	68.3
Level of education	Primary	0
	Secondary	8.3
	Undergraduate	58.7
	Postgraduate	33.0
	No formal education	0
Occupation	Government sector	22.5
	Private sector	29.8
	Student	28.0
	Self-employed	19.7
Source of knowledge	Social media	47.2
	Mass media (TV, radio)	14.7
	Friends	38.1
	Newspaper	0
Purpose of visit	Sightseeing	13.3
	Learn about heritage	25.7
	Shopping	58.7
	Others	0.5

Table 2 shows the highest and lowest mean values of factors in VIM practices which are environmental impacts (ENI) with the highest mean value of 4.35, socio-cultural impacts (SCI) (4.39), visitor education (VE) (4.39) and visitor impact management (VIM) (4.36). The data of the highest mean score of these four attributes of VIM practices are satisfactory at heritage-based tourism sites as the score is within the range of 4.0 – 4.5. This result shows significance with the data from Velmurugan, S. et. al. (2021) at Eravikulam National Park (ENP).

Table 2: Mean score of VIM practices

VIM practices	Highest mean value	Lowest mean value
ENI	4.35	1.84
SCI	4.39	4.34
VE	4.39	4.30
VIM	4.36	4.30

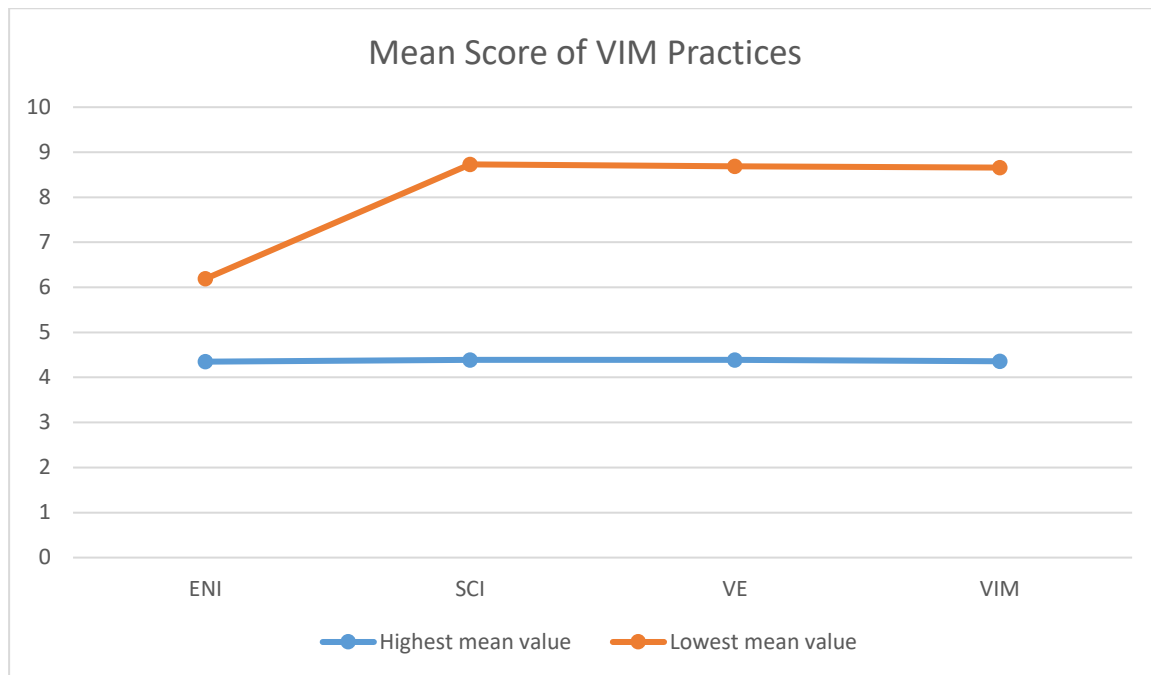


Figure 3: Mean score of VIM practices

Influence of Socio-economic Profile on VIM practices

According to Ciocanea, C.M. et. al. (2016) & Velmurugan, S. (2021), different age groups are significant with visitor education (VE) impacts in the protected area. This is supported by the data of the data found from this study that showed a significance level of 0.0313 indicating that there is a statistically significant relationship between age groups and VE. The F-value being greater than 1 suggests that the variance between groups is larger than the variance within groups, indicating that the different age groups may have a different impact on VE.

The significance levels provided suggest that there is a statistically significant relationship between the level of education and the variables of the human environment (HE), environmental impacts (ENI), socio-cultural impacts (SCI) and visitor education (VE). A significance level of 0.049 for human environment suggests that the level of education has a significant impact on the perception of the human environment and indicated significant relationship towards SCI and VE. As for VE, it is believed that higher level of education contributes to the increasing awareness among visitors while visiting heritage-based tourism destination and this was supported by Manning, R. et. al. (2014) that implied tourism activities, resources impacts and level education are factors influencing the impacts towards tourism sites.

Table 3: Influence of socio-economic factors on VIM practices

Factors	VIM practices	F	Sig.
Age	VE	3.941	0.0313
Level of Education	HE	4.573	0.0493
	ENI	2.343	0.0137
	SCI	4.867	0.0247
	VE	4.211	0.011
Occupation	FA	7.135	0.0652
	SCI	6.851	0.1803
	VIM	4.627	0.2213

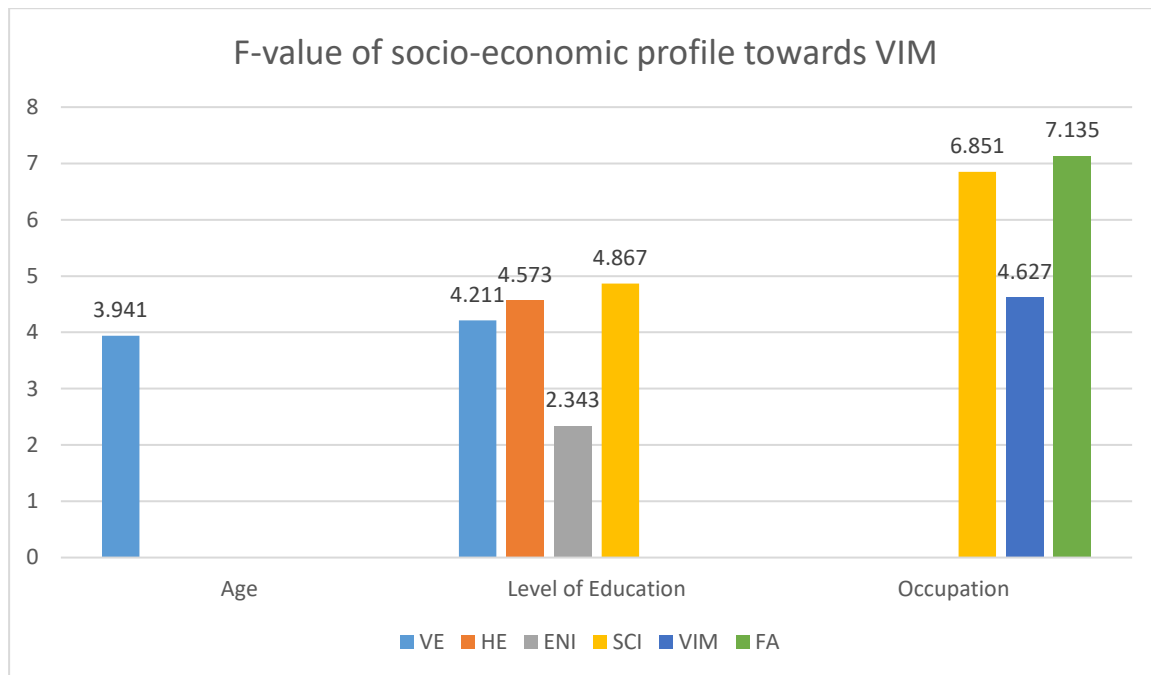


Figure 4: F-value of socio-economic profile towards VIM

Finally, the significance level of 0.0652 for types of employment and FA indicated that there is a possibility of a weak relationship between the two variables. However, this relationship is not statistically significant as the p-value is greater than the commonly used threshold of 0.5. Similarly, the significance level of 0.1802 for occupation and socio-cultural impacts and 0.2213 for VIM, suggest weak or no relationship between the variables. In both cases, the significance level is greater than 0.05, indicating that the relationships are not statistically significant.

The final section of the questionnaire in this study included an open-ended question that sought respondents' suggestions for improving their experience and satisfaction during their visit to the Ipoh Heritage Trail. The responses collected provided valuable insights into potential areas of improvement. Several suggestions were made, including the creation of a virtual reality experience to enhance the innovation and interactivity of the heritage trail. Additionally, respondents also emphasized the need for improving marketing strategies for the trail and highlighted the importance of site managers focusing on the cleanliness and maintenance of the trail to ensure a pleasant experience for visitors.

Overall, the result of the study showed that the age group was significantly related to visitors' perceptions of FA, with a moderate effect size. This suggests that different age groups may

have varying needs and expectations regarding the facilities provided at the heritage trail. Furthermore, the level of education was found to be significantly related to visitors' satisfaction of HE, ENI, SCI and VE. This indicated that visitors' educational background plays a role in shaping their satisfaction and experience of the heritage trail's management practices. Additionally, these results suggest that types of occupation may not have a significant impact on FA, SCI or VIM. However, it is important to note that other factors not included in the study may have a stronger influence on these variables.

Conclusion

In conclusion, this study has highlighted the importance of VIM practices in maintaining a delicate balance between conservation and tourism. The results of the study showed that certain factors such as age, level of education and occupation had a significant impact on visitors' satisfaction and experience while being at Ipoh Heritage Trail. It was found that the implementation of effective VIM, such as educating visitors about the heritage site and its significance, can lead to greater visitors' satisfaction and experiences. This study is hoped to contribute to the ongoing discussion on sustainable tourism and highlights the importance of integrating VIM into heritage site conservation strategies. By considering the needs and expectations of visitors, while also preserving the integrity of the heritage site, we can create a more positive experience for all parties involved. The findings of this study could be useful for site managers and policymakers in developing VIM that balance conservation and tourism goals.

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