DOMESTIC VISITORS’ WILLINGNESS TO PAY (WTP) FOR THE PRESERVATION OF WORLD HERITAGE SITE, STADTHUYS, MELAKA, MALAYSIA

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Abstract: This research explores the issue of local management system governing the heritage preservation in UNESCO World Heritage Site (WHS) Stadthuys, Melaka. Thus far, there is no clearly defined value of cultural heritage that justifies the benefits of preserving cultural heritage as a tourism product and as a sustainable heritage site. Most studies have proven that visitors in general are less interested in visiting cultural heritage sites due to the lack of information available there. Another issue identified in the recent research on cultural heritage assessment is the lack of empirical references on the economic valuation of cultural heritage preservation. This study used contingent valuation method (CVM) and questionnaire for data collection. Four sets of questionnaires were designed and distributed to a total of 100 respondents consisting of local community and domestic tourists. On average, respondents are willing to pay RM8.82, in which this value is higher than the current fee, RM5.00, showing that visitors have the awareness to value cultural heritage through preservation in Stadthuys, Melaka, WHS. Finally, this research has established a framework to be considered by the management regarding the WTP value of the cultural heritage in order to create a more sustainable Melaka Historical City.

Keywords: cultural heritage, preservation, contingent valuation method, willingness to pay (WTP), stated preference.

Introduction
Cultural heritage is part of a location’s identity, which is valued differently by the locals compared to outsiders like tourists. Heritage Counts (2003) stated that a historical landscape is valuable in terms of existence, option, altruistic, community identity, and recreational. It also represents a potential revenue source through tourism and the use of building. Schaeffer and Millerick (1991) posited that historical building is high in value and offers many economic opportunities within its neighbourhood.

Stadthuys, which is in Melaka, Malaysia is one of the protected areas for the conservation and protection of the world’s historical heritage by UNESCO. Its red building portrays a strong historical evidence of the legacy of the Dutch in Melaka that used to be the administrative centre of government. It has now turned into a historical museum. Furthermore, many ancient artefacts and history of Melaka are stored in the building.

Most empirical studies on the conservation of cultural heritage have shown that the cost of admission does not clearly define the benefits of cultural heritage (Fazamimah & Ariffin, 2015) because the current prices for most heritage sources are no longer relevant to the current economy. With the increasing inflation every year and the implementation of various new government policies, the local economy has changed. Therefore, economic revision studies should be conducted to obtain the real value that can translate the real benefits of cultural heritage, thus contributing to the development of local community, state, and national economies. Fazamimah and Ariffin (2015) also argued that the lack of visitors to cultural heritage sites is due to the lack of dissemination of information on tourist cultural tourism attractions. It is
significant to promote cultural heritage as a resource and facilitate financial investment. Cultural heritage resources provide sustainable development and illustrate many positive effects on cultural, economic, social, and environmental conditions.

Tourist behaviour measures include their interest and willingness to pay for responsible tourism and holiday experiences to a heritage site. Previous research proved that the greatest success in influencing visitors’ actions comes from understanding what they think about a particular behaviour especially about encouraging pro-environmental behaviour of visitors to act in ways that minimize environmental and experiential impacts of tourism (Brown et al., 2010).

Methodology

Contingent Valuation Method (CVM) is one of the conventional methods based on stated preferences e.g. travel cost and hedonic price. Nowadays the use of this method is broadening to various research areas, and one of them is the cultural heritage tourism (Carson, 1997). CVM measures the visitors’ willingness to pay using close-ended technique (CE). This study employed CE as a WTP approach to estimate the benefits of the cultural heritage preservation efforts in Stadthuys, Melaka.

The CVM involved field survey process includes informing respondents what is it they are being asked to value, how it would be provided, and how they would pay for it. Individuals were asked whether they would pay specific additional fees for a given commodity with possible responses being “yes” or “no”. The bid amount varied across respondents and the only information obtained from each individual is whether his/her maximum WTP is above or below the bid offered. Their response of either “yes” or “no” will change the future of the Stadthuys as the world’s heritage site. The information is presented in written or verbal form and accompanied by photos and other visual contents to assist visitors’ understanding.

Logistic regression technique was used to estimate WTP (Hanemann, 1984). Using this approach, the probability of saying “yes” to a bid at different levels of the independent variable is estimated as below:

$$ P = (1 - e^{-x})^{-1} $$

Where \( x \) is estimated regression logit regression equation and \( P \) is the probability of accepting the price. Mean WTP is estimated as the area under this probability function. This area shows the proportion of the population who would consume the good at each price level, and their associated utility. The area under the curve is estimated by integration techniques and can be expressed as:

$$ E(WTP) = \int_{L}^{U} \frac{1}{1+e^{a+bPRICE}} \, dPRICE $$

where \((1 + e^{a+bPRICE})^{-1}\) is the probability of saying “yes” and \(U\) and \(L\) the upper and lower limits of the integration respectively.

Estimating mean WTP within this framework relies on making some assumption about upper and lower limits of the integral i.e. knowing the price amount at which the probability of saying “no” is zero and the probability of saying “yes” is one. Applying this to Stadthuys Melaka, and if individuals will not pay if they receive a disutility from it, negative WTP can be ruled out and zero used as the lower limit.

Bishop and Heberlein (1979) used the upper range for the integration of their price amount as the upper limit for the integration. Hanemann (1984) argued that such an approach makes assumption about the probability distribution for the unknown WTP in the sample. He argued that the upper limit should be infinity and that using the highest offered amount may be a poor approximation of the mean utility estimated when integrating between zero and infinity. In this study, zero was chosen as the lower limit of the integral and maximum value as the upper limit. Confidence interval of WTP was also calculated using the variance covariance matrix and a technique adopted for dichotomous CVM (Park et. al., 1991).
Data Collection

Providing information on the item being valued is a fundamental component of a contingent valuation study. This study employed primary data and questionnaire as a data collection method. The survey was conducted in Stadthuys, Melaka to obtain preservation awareness of the world’s heritage site through paying decision among domestic visitors. About 100 of domestic visitors were involved in the study and the field site survey was conducted for one month in February 2019 at the targeted site. Selection of sample size is a matter of choosing an acceptable level of precision within a given budget. The CV studies entail large sample size since large variance in the WTP responses (Mitchell and Carson, 1989). In practise, most studies prefer larger sample size with possible given according to financial budget.

Results and Discussion

The maximum likelihood estimates of the specification for logit and the means of WTP were estimated using an econometric software, Stata 15. An estimation of the model using all the socio-economic characteristics as independent variables revealed that age, income, and education level have significant positive correlation with the visitors’ WTP as in Table 1. The chi-squared statistics shows that the model is highly significant. The variables of age of respondents were positive in its relationship towards dependent variable and significance at 15% level. It was found that as the age of visitors’ increases, they are willing to contribute for preservation of the Stadthuys as UNESCO World Heritage Site, hence proving that respondents’ maturity level will affect their decision on WTP. Meanwhile, “income” is highly significant at 5% level and being represented as when income increases, visitors’ WTP also increases. Visitors with higher income have more income and able to allocate their expenses to support positive efforts for preservation and conservation at the building. In addition, education has a positive relationship towards the WTP for preservation and is highly significant at 5% level. The variable showed that as visitors’ education level increases, the visitors’ WTP also increases. The increasing level of education helps visitors to better understand the importance of preservation of world’s heritage site for future generation. The value of adjusted McFadden’s pseudo R² is 0.6493.

Based on the estimation results, equivalent WTP measures were calculated using logit model (refer to Table 2). The calculated WTP means were ranged from RM8.32 to RM9.32 for the logit model based on 95% confident interval. Therefore, the premium value of RM8.82 is taken as the conservative WTP measure.

Conclusion

The preservation of heritage buildings is vital as it offers a sense of identity and continuity in a rapidly changing world for future generations. This study has shown that visitors to the Stadthuys, Melaka are willing to pay more than...
the current entrance fee, RM5.00. By applying the logit model, it is estimated that the visitors are willing to pay about RM8.85 for the entrance fee. The fundamental information transmitted in the survey are the descriptions of the changes in resource conditions due to the policy being valued. The revenue collected from the visitors could be used as an additional support to the limited fund allocated for the maintenance and conservation of the museums. Moreover, the revenue derived from the tourism industry is not being earmarked for maintenance or conservation efforts; rather, it is frequently merged with other sources of revenues. Setting appropriate fees to heritage sites would enable assigning the use of resources to the rationale users. Therefore, this study has proven that economic valuation is one of the most effective ways for the society to identify the relative value of the cultural heritage for the conservation of sustainable heritage site. Involvement of the public in valuing the cultural heritage is highly influential in the sustainability of their heritage.

This research also faced some inevitable problems although it had been successfully conducted. First, due to resource constraints i.e. time and finance, this research only managed to analyse one case study located in Stadthuys, Melaka. Therefore, researchers will consider these problems as an important guideline for future research.

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