

# **The Economic Appraisal of Site Museum's Value: A Case Study of Taiwan Shihsanhang Museum of**

## **Archaeology**

### **Abstract**

A museum is not only a depository for national treasures, but it is a symbol of a nation's culture and education. It is a cultural goods, public goods, and also merit goods and significant cultural capital that aid major countries or cities to attract tourism. From the perspective of economics, a museum is not merely an important house of cultural heritage, but also an important cultural goods. Gradually, the public is accepting methods of economics to evaluate a cultural goods or the performance of a museum. For instance, the Guggenheim Museum in Bilbao had several successful cases that brought in huge tourist and business opportunities for Bilbao. However, there are some small or medium sized museums due to their insufficient attendance or deficiency between revenue and expenses, they cannot attract sufficient sponsorship and unable to rise enough funding for operation. Nevertheless, they still lacks on systematic and recognizable evaluation model.

Although the total area of Taiwan is only 36,000 sq. km, there are plenty of historical sites spanning from prehistoric eras to Dutch occupation, Japanese invasion and through the Ch'ing reign. However, due to difficulties evaluating the historical sites and insufficient attendance after the founding of the site museum, issues of whether to preserve or develop historical sites remain disputable. Therefore, the issue of appraising method for the economic value of museum remains. This thesis utilizes the zonal travel cost model (ZTCM) upon extensive literature review, aiming to find out the economic values of museums.

The case study of the research focuses on Shihsanhang Museum of Archaeology in Bali, Taipei County, it established as an institution holding second-tier national treasure. The museum is located 700 meters away from the site and opens to the public since 2003. It has attracted approximately 550,000 visitors a year. Until 2006, it has attracted a total attendance of over 2.2 million visitors.

The research starts with the introduction and objectives, and then follows with investigation methods and definition. Chapter 1 serves as an introduction, chapter 2 is a literature review that explores various museum assessment theories, chapter 3 is an overview on the founding of the theoretic structure, including the economic value of cultural goods, It includes the establishment of a function on cultural goods and

exports the demand function on cultural goods. Moreover, the research part on Shihsanhang Museum of Archaeology can apply the ZTCM to establish a demand of a function. However, multiple analyses are required to proceed empirical analysis on the theoretical structure.

Chapter 4 is a test theory for methods detailed in chapter 3. Based on the above research results, the final chapter will provide adequate conclusions and recommendations for future scholastic and government reference.

In addition to studying the evaluation methods for museums, the thesis intends to appraise their intangible contributions. A systematic sampling of the Shihsanhang Museum of Archaeology visitor was conducted between December 2005 and March 2006; 439 visitors have been surveyed, and 342 effective questionnaires have been collected. The survey success rate is 78%. After test and analysis, it is found that the *lin-lin* Model appears the most explanatory, and possesses the merits of non-self-related, variable certification, and function factors can be directly use on explanation and operation.

Based on the ZTCM, to multiplying with the number of visitors, we can get the amount of total visitors are willing to pay for a museum visit (excluding tickets and other relevant revenues). In the case of the Shihsanhang Museum of Archaeology, a preliminary calculation shows that the average travel cost per visitor is NTD 717, and the average annual attendance is 550,000 visitors. By multiplying these two figures we can get an amount of over NTD 390 million, which represents the Gross National Product (GNP) that the museum has created. Considering the museum's construction cost of NTD 380 million, it takes only 1 year to break even with the initial investment. It reveals the worthy value for the government to cultivate the museum.

If using the net value to calculate the museum's long-term value, it shows that the museum has created a value of over NTD 1,950 million, which far exceeds the construction cost of the Shihsanhang Museum of Archaeology and Bali left bank, about NTD 730 million in all. The consumer surplus is NTD 7.1 billion (Subtracting 14% surplus from non-visit consumers), therefore is 19 times over the original construction cost of NTD 380 million; exceeding the B/C ratio over 1. It is proved that the museum has created a significant value that is worthy of the national preservation. It also shows that the facilities of a museum is not only beneficial to the society and culture, but contributes a lot to the economics of a nation.

From the five hypothesis have stated in the thesis, 4 of 5 has been confirmed and can be apply as academic references. The four confirmations from the five hypotheses are as follows: the numbers of visitors demand and the travel cost is reciprocal

proportion, the numbers of visitors demand and income is direct proportion, the numbers of visitors demand and social economic reason of division is direct proportion, and the price on cultural goods demand is more flexible. Nevertheless, the last hypothesis cannot be confirmed maybe due to the differences between different countries.

To exam whether the research has attained its goal, observe on the empirical analysis reveals ZTCM is useful on non-market value of site museums. Such an analysis only base on user's value of standard model, non-user field is required to research in a vary way. As a result, the value of calculation is usually smaller than the social total value. Gladly, from the empirical analysis shows that Shihsanhang Museum of Archaeology is suit for cost efficiency.

However, the research is confined to short-term specific visitors and the study can not fully reflect the total social value of a museum. To continue the following research, contingent valuation method and hedonic price method may be included to undertake more estimation. With the comparison of different evaluation methods, the long-term value of a museum, or the more authentic value of a museum, in a word, may be acquired and be used as a valid reference for the museum ticketing policy. Furthermore, through comparing the value of different sized or typed museums, these methods will be of great help to better evaluate the investment of a museum and serve as a valid reference for the museum planning. Meanwhile, a museum can understand its visitors through analysis of various demand curves and the travel cost within different areas. Therefore, it can design different exhibition strategies and outreach plans to cater to different visitors needs.

**Key words: cultural economics, zonal travel cost method ( ZTCM ) , value, cultural goods, site museum, Shihsanhang Museum of Archaeology**