

Application of Monte Carlo Analytic Hierarchical Process (MCAHP) in the Prioritization of Theme Park Service Quality Elements

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Abstract—Previous studies around the globe regarding the factors affecting customer satisfaction in theme parks had plainly used multiple linear regression and statistical analysis in order to arrive at a conclusion. This study will course on creating a model that will determine the same matter in the Philippine setting through the application of the Analytic Hierarchical Process (AHP). Accordingly, the Monte Carlo Simulation will be used in order to prioritize the factors of theme park customer satisfaction. This model will give aid to the management of both theme and amusement parks in the Philippines in prioritizing the factors deemed important by the costumers. The model in general is expected to be applicable to the service industry and will be beneficial to various service enterprises through the improvement of their decision making process.

Keywords—*Customer satisfaction; Theme Park; Monte Carlo Simulation, Analytic Hierarchical Process*

I. INTRODUCTION

Theme parks, just like any service industry, are no exception in terms of achieving customer satisfaction. Most of the theme parks address customer satisfaction through the issue of waiting lines. As discussed by Lith (2002), [1] service sectors encountering queues was able to develop proposals in order to counteract the negative effects brought by the issue. These offered solutions indicate that despite the difference in the system structure of service firms, they are all eyeing to arrive at a certain point and arrangement wherein the queues are lessened and the customers are waiting in line at a location beneficial to the service sector.

However, according to a forecast-type study conducted by Kubota, Uno and Qiting (2013) on the customer satisfaction in Shanghai Disneyland to be opened on 2015, through the use of Kano Model, [2] basic requirements compliance emerged as the top priority aspect of the potential visitors in the said amusement park. The analysis suggests that the park should focus on building basic facilities in order to maintain a regular return rate of the visitors such as providing a rest area in each attraction, toilet facilities, character souvenirs and on-line ticket booking services. Thus, failure to commit in providing customer-friendly services and strategies to improve customer satisfaction could increase the probability for the failure of a any business.

Though there may be a variety of factors that causes low customer retention on amusement parks, there is no doubt that majority of it is brought by customer dissatisfaction. This concern can be better solved when specific areas such as operational strategies and facilities planning are executed effectively. In line with this, the main challenge is to maximize the ability of the amusement park in satisfying its customers and as well as retaining them as much as possible through improving its performance. By developing a model concerned on the prioritization of various factors affecting customer satisfaction, theme parks will be able to improve its service quality.

