## RELATIONSHIP BETWEEN QUALITY OF MEDICAL TREATMENT AND CUSTOMER SATISFACTION – A CASE STUDY IN DENTAL CLINIC ASSOCIATION

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Abstract. In line with the rapid economic development and expansion of medical institutions in recent years, marketing strategy has changed from being organization oriented to customer oriented. Medical institutions can no longer merely focus on medical effectiveness; rather, to win customer loyalty and maintain a competitive advantage, they also have to realize what other factors affect the quality of medical treatment. Therefore, how to apply and arrange current resources best to enhance the quality of medical services and medical marketing are goals that every medical institute should be eager to pursue. In most past studies, the quality of medical treatment has been explored by cumbersome questionnaire survey or quantitative research methods. Here, however, we apply a system dynamics schema, to build loop analysis figures for the purpose of exploring dynamic complex questions regarding the relationship between the quality of medical institutions and customer satisfaction. After a review of past literature, we explore the possible influence that the quality of medical treatment might have on customer satisfaction. We do not rely on only one factor in our examination of what customers are concerned with or what is the main determinant of customer satisfaction. Based on the literature survey and interviews with medical administrators, we come up with a dynamic system model. After certain modifications, we can reasonably model the interaction between medical management, medical quality and customer satisfaction. Our model simulates the relationships between hospital administration, the quality of medical treatment and customer satisfaction. It includes five causal feedback loop diagrams of system archetypes for simulating the dynamic and complex problems involved in healthcare. Hospital administrators can use this model as a reference for devising better marketing strategies.

**Keywords:** System dynamics, Quality of medical treatment, Customer satisfaction, Healthcare marketing, Dynamic model

1. **Introduction.** In 1945, there were only 738 dentists in Taiwan. However, by 2002, after a ten-year period of development of dental science, 7 new schools had been set up by the Department of Dental Science, supplying more than 500 new dentists each year. According to the data revealed by the Department of Health, in 1985, there were 1.69 dentists per 10,000 people, whereas, in 2002, this number reached 4.09 dentists; details are shown in Table 1. The supply of dentists is still increasing dramatically, making the dental