## DIAMOND PRICE STATISTICS AND MODELING

Chong Huang, Eberhardt School of Business, University of the Pacific. 3601 Pacific Avenue, Stockton, CA, 95211, chuang@pacific.edu

Albert Huang, Eberhardt School of Business, University of the Pacific. 3601 Pacific Avenue, Stockton, CA, 95211, ahuang@pacific.edu

## **ABSTRACT**

Due to its price and unique marketplace, the diamond industry is a relatively late adaptor of Internet sales and e-business. As consumers become more comfortable with doing business online, the diamond industry is expected to increase sales online, especially for the less expensive synthetic diamond market.

In recent years, synthetic diamonds have made an important impact on the diamond jewelry industry. The carat price of synthetic diamond continues to decrease as the quality and quantity of jewelry-grade synthetic diamonds increase. Different from the carat value of its natural counterpart, the market value of synthetic diamond has rarely been studied systematically. In this study, we collected over 20,000 data points of diamonds for comparing natural and synthetic diamonds. The 4Cs (Cut, Color, Clarity, and Carat) grading system of natural diamond will be utilized as reference in this paper for price modeling. The factors that affect synthetic diamond pricing will be discussed in this study.

**Keywords**: Pricing model, Diamond