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# Shine bright like a diamond: a hedonic model of grading and pricing an experience good

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## Abstract

Diamonds are generally evaluated on the basis of sensory characteristics, such as carat (weight), colour, clarity and cut. However, given the experience goods nature of diamonds, few consumers grasp how the sensory characteristics of these stones are evaluated by the gemological grading laboratories that independently issue diamond reports. This study extends prior research by determining whether diamonds graded by certain gemological laboratories are subject to pricing premiums or discounts in online retail markets. Regression models employing a sample of 169 483 real-time diamond offerings from online diamond retailers (e.g. Blue Nile, James Allen and Adiamor) find significant price discounts attributable to diamonds graded by the European Gemological Laboratory USA in relation to diamonds graded by the Gemological Institute of America (GIA) and significant price premiums attributable to diamonds graded by the American Gem Society in relation to diamonds graded by the GIA.

Keywords:

diamond markets | experience goods | hedonic pricing | product evaluation

JEL Classification:

D46 | D83 | L11 | L15 | L81 | M31

# Notes

[1] See Mixon (1995) for a review of this genre of the literature.

[2] The AGS is headquartered in Las Vegas, Nevada.

[3] The Ideal cut grade is also referred to as the AGS Ideal or the Triple Zero cut (AGSLab.com).

[4] The Gemological Institute of America is headquartered in Carlsbad, California.

[5] Unlike either the AGS or the GIA, the EGL is a for-profit organization. Ira Weissman, the founder of Truth About Diamonds website (truthaboutdiamonds.com), attributes much of what the industry views as the EGL's 'looser' grading standards to this distinction.

[6] Type IaB diamonds are those with large even-numbered nitrogen atoms that exhibit yellow to brown tinting (Sa, 1977; Walker, 1979; AAG, 2009).

[7] The means and standard deviations of all the variables included in this study are also presented in Table 1.

[8] It is also the case that cut grades, unlike carat weight, colour grades and clarity grades, are relatively new measures of diamond quality. Most gemological grading laboratories determine a diamond's cut grade by a diamond's proportions, symmetry and polish. However, the weightings of each of these factors in determining a diamond's overall cut grade is not uniform across gemological grading laboratories. Therefore, it is likely that this inconsistency in cut grade determination gives less credence to online retailers and consumers in assessing the value of a diamond and

contributes to the insignificant relationship between cut grade and diamond price found in our regression model.

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