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# VALUE CREATION IN CULTURAL INDUSTRIES: THE EFFECT OF SCARCITY IN SCOTCH WHISKY AUCTIONS

Abstract: In cultural and creative industries, consumers are often seen as the final arbiters of the value of a product. Their subjective valuation of experienced benefits and willingness to pay an exchange value – determines the worth of products and services in these industries. In this paper, we investigate the underlying dynamics of customers' determination of exchange value. Specifically, we propose two hypotheses – first, the scarcity hypothesis: value appreciates due to limited supply and second, the spillover hypothesis: value spills over to products with similar characteristics. We test these hypotheses in the context of Scotch whiskies. Using data from an online Scotch whisky auction market that had 75,526 auctions of single malt Scotch whiskies between 2005 and 2015, and characteristic profiles of all whisky distilleries in Scotland – first, we test if the exchange value of single malt Scotch whiskies from distilleries that have ceased to operate appreciates more than others. And second, we test whether the exchange value of single malt Scotch whiskies from distilleries with a profile similar to the distilleries that ceased to operate also appreciate more than others.

Keywords: Valuation, cultural and creative industries, consumer benefit experienced

Note to the reader: This is an early draft of the developmental paper Introduction:

A central research question in cultural and creative industries has been to understand valuation of cultural products (Antal, Hutter, & Stark, 2015). Departing from the mainstream view of value creation in strategic management, which focuses on value creation via market positioning (Porter, 1980), uniqueness of resources (Barney, 1991), or optimisation of transaction costs (Williamson, 1971) – Priem (2007), proposes a consumer perspective of value creation. He argues that value is created by customers – who, through their willingness to pay an exchange value, set the price of products.

Priem's (2007) analysis is particularly useful in the context of cultural industries. Even though, producers of cultural products can, and do, set the price of their goods and services in-line with the mainstream frameworks cited above, a large proportion of cultural products are exchanged in auction markets where the highest bidder sets the price of the product. Take for instance the value of an artwork being set at an auction. This is a case of market selection where consumers directly select and set the exchange value, often influenced by expert valuation of the product and its characteristics (Wijnberg, 1995; Wijnberg & Gemser, 2000).

Furthermore, Priem (2007) proposes that customers' willingness to pay a higher exchange price is related to 'consumer benefit experienced' (CBE). In this analysis, consumers search for value and they are likely to derive more value from owning more exclusive products. Consumers' willingness to pay a premium for exclusivity has been well documented. For instance, a number of scholars have investigated willingness to pay in auctions and found that prices decline for identical bottles of wine in auctions (Ashenfelter, 1989; McAfee and Vincent, 1993). This is

also observed in identical condominium units in real estate auctions (Ashenfelter and Genesove, 1992). This suggest that consumers would be willing to pay more if they have information that a product is exclusive.

Scarcity hypothesis: A large body of research is strategy and marking suggests that scarcity positively influences valuation. There are broadly two mechanisms that drive scarcity. First, scarcity due to limited supply such as limited production like a 'limited edition' and second, scarcity due to increased demand such as over subscription. We propose that customers will have a higher benefit experience, if they know that there is a limited supply of the product. This makes the product rarer and therefore more exclusive. Therefore we propose:

H1: The exchange value of goods from a producer that has ceased production will appreciate more than goods from producers that continue production

Spillover dynamics: Priem (2007: 2) proposes that consumes create value as they perceive "specific qualities of the product ... in relation to their needs". Strategies that use visible resources to influence consumer evaluation can be found in many industries, but is it especially pervasive in creative industries. This tends to occur in multiple ways. First, it is common practice in creative industries for firms to retain the visibility of some resource inputs. For example in labels. Movie studios often identify actors and directors on posters when marketing films in part because they wish to use the reputation that actors and directors established in previous projects to increase the value perception of their product. Second, product valuation in creative industries is not only the result of direct interaction between producers and consumers, but also is strongly influenced by actors such as critics or association of creative professionals

that play a prominent valuation role in the producers' business ecosystem. Consumers see these actors as possessing special expertise when it comes to judging quality, and the opinions they express after products are released therefore constitute visible resources that producers can use to influence consumer valuation.

Therefore, when customers are able to compare attributes of cultural products, often as presented to them by means of labels or by experts, they are able to judge the quality of a product by comparing it with other products of similar attributes. If the value of a certain product appreciates, we would therefore expect that consumer benefit experience for products with similar attributes would also increase and therefore influence their willingness to pay a premium for similar products. Therefore we propose:

H2: The exchange value of goods from a producer with similar characteristics with the producer that has ceased production will appreciate more than goods from other producers

### Methodology

To test our hypotheses we use the context of the Scotch whisky industry, which consists of the whisky producing distilleries located in Scotland. This industry provides a suitable context to test our hypotheses for several reasons. First, whisky is a cultural product and the boundaries of production are well defined and protected by legislation. Since 2009, the production, packaging, and promotion of Scotch whisky is regulated by the Scotch Whisky Regulations 2009, which also regulates the use of the label 'Scotch Whisky' only to whiskies that are produced by a distillery in Scotland. Second, the inputs of production are controlled and protected by regulation. All

Scotch whiskies are made from either single malts or grain whisky. A single malt Scotch whisky is produced from water and malted barley at a single distillery while a blended Scotch whisky comprises of two or more single malts, often from different distilleries, and grain whisky. Since we are only considering single malt Scotch whiskies, we can be more certain that the inputs of production are controlled by the distillery. Third, a product can be launched only by a distillery as a single malt — under the brand identity of the distillery, or by a bottler often under its own brand. Finally, given the large number of transactions in the auction market, we have data to estimate the exchange value of the product, as assigned by consumers.

#### Data

Our data comprises of two datasets. First, we were able to collect auction data for 75,526 auctions of single malt Scotch whiskies between 2005 and 2015 from one of largest online whisky auctioneers in Europe. This dataset provides us a number of variables about the product such as price, date of auction, and characteristic of the product including age of the whisky, distiller's identity, bottler's identity, year of bottling, size of the bottle, and alcohol content. We define a 'product' as a single malt Scotch whisky with the same characteristics, launched by a distiller or a bottler in a year. The second dataset comprises of characterises of the 93 distilleries that launched single malts, which were auctioned in this period. The distillery data comprises of variables such as founding year, closing year (if applicable), regional location, taste and profile of the single malt on scales of peatiness and sweetness.

#### Measures

Exchange value: The exchange value of a product for a year is the average value of all transitions for that product in a year

<u>Percentage change in exchange value:</u> The percentage appreciation or depreciation of the exchange value of the product from the last year

<u>Distillery closure:</u> A dichotomous variable that takes the value 1 if the distiller is still in operation

<u>Distillery's regional identity</u>: A categorical variable that captures the regional location of the distillery

<u>Distillery's product proximity:</u> Researchers often use multi-dimensional spaces to study objects with multiple characteristics, for example product characteristics space (Lancaster, 1966), in which the axes form the unique characteristics of the product. In the case of whiskies, two taste characteristics, sweetness and peatiness, are widely used to evaluate distillery output. We used these two characteristics to form the two axes of its product characteristics space. Using this we create a proximity score for each distillery relative to other distilleries using the following:

Proximity 
$$_{ij} = \sqrt{(S_i - S_j)^2 + (P_i - P_j)^2}$$

Where Proximity ij is the proximity of the i<sup>th</sup> distillery from the j<sup>th</sup> distillery and S<sub>i</sub>, S<sub>j</sub>, P<sub>i</sub>, and P<sub>j</sub> denote the sweetness and peatiness of the i<sup>th</sup> and j<sup>th</sup> distilleries respectively. Control measures: We have a number of control measures including the characteristics of the distiller such as age of the distillery, size measured in terms of the number of active stills, ownership, average quality rating of the whiskies produced by the distillery, and the establishment of a visitor's centre at the distillery. We also have product level control variables such as the age of the product, size, and alcohol content of the product.

#### Methods

We are currently in the process of running different regression models to test the hypotheses. We find partial support for our hypotheses.

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