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## **How Product Scarcity Impacts on Choice: Snob and Bandwagon Effects**

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EXTENDED ABSTRACT - The value of products is not only determined by the utility that consumers derive from the products' attributes and their functional consequences, but has an important social component as well. Specifically, scarce products are generally deemed valuable, independent of the utility that their intrinsic attributes deliver. This effect has been found in several studies and appears robust (Lynn 1991). This paper identifies two distinct routes through which scarcity can increase product choice. These routes are expected to have distinct effects in the product valuation process, which have until now not been examined in detail.

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# How Product Scarcity Impacts on Choice: Snob and Bandwagon Effects

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## EXTENDED ABSTRACT

The value of products is not only determined by the utility that consumers derive from the products' attributes and their functional consequences, but has an important social component as well. Specifically, scarce products are generally deemed valuable, independent of the utility that their intrinsic attributes deliver. This effect has been found in several studies and appears robust (Lynn 1991). This paper identifies two distinct routes through which scarcity can increase product choice. These routes are expected to have distinct effects in the product valuation process, which have until now not been examined in detail.

The first route examines scarcity due to excess demand. Consumers see that others have bought the product, and this may induce them to follow that behavior. This effect can occur out of conformity with others. Consumers may also extract information about the value of a product from the buying behavior of others. When consumers are unsure about the value of products, information on the valuation of others can help refine their own valuations. Hence, scarcity due to excess demand increases inferences of product popularity and quality. This is related to the bandwagon effect described in economic literature.

The second route concerns scarcity due to insufficient supply, where product exclusiveness leads to inferences of product quality (snob-effect). Consumers value the exclusivity of possessing rare products, and may see these products as a means to emphasize their uniqueness. Being one of the few who own a particular product may increase the product utility. We examine how scarcity operates in both routes, which theoretically exclude each other. By separating the two routes, we hope to gain new insights into the common situation where product scarcity influences consumer choice, and where less of a product increases sales.

To gain more insight into the two routes, and the dual forces of following others (bandwagon) versus being different from others (snob), our study relates these routes to consumers' need-for-uniqueness (NFU). The ability of scarce products to create a sense of uniqueness has been proposed as a reason for scarcity effects (Fromkin 1970). We propose that NFU only moderates the relation between scarcity and quality when scarcity is due to supply limitations, not when it is due to excess demand. After all, excess demand implies that the product is popular rather than exclusive.

As an application area, this paper examines the influence of product scarcity as communicated by empty shelf space in stores. The visible (lack of) supply of a product is powerful signal of product scarcity (Stiff, Johnson & Tourk 1975). When a product is almost out of stock, this may act as a scarcity cue, and it is a situation that consumers commonly experience during shopping trips. In fact, if our research indeed shows that product scarcity, as expressed through empty shelf space, increases preference and choice of scarce products, this implies, somewhat counter intuitively, that reduced stocks promote increased sales.

Two experiments test our framework. The first experiment examines both scarcity caused by excess demand, and scarcity caused by limited supply in a virtual shopping environment for a sample of the Dutch population. This study confirms that scarcity due to excess demand leads to inferences of product popularity and quality, and thereby increases product choice. In a second experiment, we used a different setting (liquor store). To gain more

insights into the processes underlying the scarcity effects on choice, we also examined the influence of NFU. In this second experiment, the reason for empty shelf space and the degree of empty shelf space were manipulated between-participants. Each participant viewed a shelf with two different wine bottles on the computer screen. One of the wines was scarce, and product evaluations were asked for both products, within-participants. Results show that both scarcity routes exist and increase product choice, while NFU only enhances quality inferences when scarcity is due to limited supply.

Theoretical implications concern the identification of two scarcity routes. While previous scarcity studies have mostly focused on limited supply, we show that excess demand and limited supply promote distinct inference processes. Although both routes lead to increased product choice, the process and moderating variables are different. Practical implications of our study concern sales forecasting, inventory management and the influencing of product preference. The accelerating effect of empty shelf space implies that stock-outs may occur sooner than one expects. Using empty shelf space as an efficient management tool would only be feasible in stores that sell a relatively small amount of products. Especially in combination with a sales pitch, scarcity can increase sales here. The insight that our study provides into the response of consumers to demand versus supply reasons for scarcity has important implications for such a sales pitch. In one case, emphasizing product uniqueness can be advantageous while in the other case it may be detrimental.

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