ABSTRACT

We examine a large transaction-level data set of an Italian omnichannel furniture retailer to study channel-specific effects of fulfillment lead time on demand. This omnichannel retailer sells the same products and has the same product fulfillment across three channels – showroom, online and catalog. The showroom channel carries no inventory but allows customers to touch and feel the products. The online channel provides a website for consumers to browse and order the products. The catalog channel sends a product catalog to all the households in Italy, so they can place an order over the phone. We find that the showroom channel makes consumers less sensitive to fulfillment lead time than both online and catalog channels. In particular, a 10% increase in lead time (1.83 days from the sample mean of 18.26 days) causes a 0.29% reduction in the daily sales volume (approximately 29 units from the sample mean of 10,140 units per day) at the showroom, less than the reduction of 1.85% and 0.92% in the online and the catalog channels, respectively. This finding contradicts the common practical and theoretical assumption about homogeneous lead time sensitivity across channels. In addition, we find that niche products and experience goods accentuate the difference of lead time sensitivity between showroom and non-physical channels. Through an online experiment, we show that higher product information precision, such as that provided in a showroom, can alleviate customers’ anxiety around product uncertainty, thus reducing lead time sensitivity.
time sensitivity and increasing purchase intent. We further build two analytical models to show the implications of our empirical results for showroom network design and inventory rationing decisions. Our study highlights the previously ignored fulfillment time sensitivity aspect of the physical store’s value.

(Copies of the paper are available in the ABA Department offices)