The Impact of Price Sequences on Preference and Choice

Eric Dolansky, University of Western Ontario, Canada
Kyle B. Murray, University of Western Ontario, Canada
Mark Vandenbosch, University of Western Ontario, Canada

There currently exist many situations where prices are presented as part of a perceptible sequence, as opposed to in isolation from past prices. Despite this, research on pricing typically examines the impact of a single price. Three studies show that the the mean, trend and variance of a price sequence can produce a significant effect on choice. It was found that (a) subjects make irrational decisions based on price sequences, (b) mean and trend matter less than variance and (c) what individuals perceive as variance is different from actual variance.

[to cite]:

[url]:
http://www.acrwebsite.org/volumes/13413/volumes/v35/NA-35

[copyright notice]:
This work is copyrighted by The Association for Consumer Research. For permission to copy or use this work in whole or in part, please contact the Copyright Clearance Center at http://www.copyright.com/.
The Impact of Price Sequences on Preference and Choice

Eric Dolansky, University of Western Ontario, Canada
Kyle B. Murray, University of Western Ontario, Canada
Mark Vandenbosch, University of Western Ontario, Canada

EXTENDED ABSTRACT

Research studying consumer response to price has concentrated on using a single price as focus or stimulus in relation to other variables. However, with increasing changes in the methods used to present prices to consumers, such as dynamic price systems, sequences or series of prices are becoming more commonplace and it is necessary to study the impact of sequence characteristics (mean, trend, and variance) on choice and preference.

Sequence research has been conducted in many contexts but surprisingly not in the context of sequences of prices. Existing research on (non-price) sequences (e.g. Loewenstein and Prelec 1993) tends to focus on the mean and trend of the sequence, but not the variability. The discounted-utility model postulates that because events in the future are time-discounted, events should be ordered from most positive to least positive, but much of the more recent work in this field (e.g. Loewenstein and Prelec 1991) is devoted to finding anomalies in this model. A typical example of an anomaly is that people prefer to have their salary increase over time rather than decrease. Whether primacy or recency effects occur in sequence evaluations could also have to do with the nature of the sequence (Zauberman, Diehl and Ariely 2006): informational sequences tend to exhibit primacy effects, whereas hedonic experiences tend to be driven by recency. A somewhat contradictory finding is that internal reference prices exhibit strong recency effects (Briesch, Krishnamurthy, Mazumdar, and Raj 1997).

Comparatively little work has been done on specifically price sequences. Danziger and Segev (2006) demonstrated that both expected future price and evaluation of a target price (set at the mean of the observed sequence) were affected by the trend of the sequence viewed.

Three components of price sequence are studied: mean, slope and variance. It is natural that a sequence with a lower mean price will be preferred, ceteris paribus, to a sequence with a higher mean price. The existence of a trend is beneficial to the consumer, as it provides for the creation of a future-price expectation (Danziger and Segev 2006). Finally, price sequences can also have different levels of perceived variance and the greater the variance, the more difficult it is to form expectations of future prices. Existing reference price literature would dictate that as long as the variance is not inordinately large, the price should either be assimilated (adaptation-level theory) or added to the existing range of experience prices (range-frequency theory). However, there is no researched impact of variability itself on choice. There is also the issue of real vs. perceived variance.

Study one involved selecting between a vendor offering prices in a random pattern and another offering prices with a discernable trend (with order counterbalanced). The key finding from study one is that the random sequence was avoided by a margin of two to one—67.8% of respondents opted for the ascending or descending series as opposed to the random sequence (p<.001). Furthermore, the ascending sequence was significantly preferred over the zero-slope sequence, while the descending sequence was not. There was no significant effect on choice (p>.10) based on the non-random (ascending vs. descending) sequence condition. However, when preference scores are examined, there is a marginally significant effect (p=.051) showing that the ascending sequence is preferred over random more often than the descending sequence. There also exists a significant order effect: when the random sequence was viewed first, it was more than twice as likely to be selected as when it was viewed second (p<.01).

Study 1A was conducted because the sequence of prices used as stimulus for the random condition in study 1 ended on a high price, which may drive some of the results. There were, however, no significant differences between any of the results in study one and the results in this study for corresponding conditions (all p’s>.15). Even so, there are some curious findings. The ascending sequence has a significantly higher choice share (p<.05) against the random sequence than does the descending sequence. Also, an interaction was discovered between order and trended sequence.

The findings and explanations of the above two studies are contingent on the assumption that participants’ perceptions of the sequences were at least somewhat in line with the actual sequences presented. In order to discover the ways in which perception may differ from strict reality, study two was undertaken, wherein participants were asked to recall and map out the prices they had seen in two different ways. In general, it was found that participants could report back, both numerically and graphically, the descriptive statistics of the sequences and their trends. One notable exception was the inaccuracy of trend recall amongst those in the ‘random’ condition—fewer than half of the participants in those cells correctly identified the series as having no specific upward or downward trend, which was a significant departure from those respondents in the ascending and descending sequence conditions (p<.001). It is interesting, however, that the majority of these incorrect responses identified the sequence as ascending. Study two also served as a successful replication of the first study. A logit model was created from study two data using perceived variance as the independent variable, and this explained 20% of the effect on choice.

While respondents were somewhat accurate in the mathematical variance expressed through the graphs, the perceived variance was very different. There were significant differences (p<.05) between all three focal series in terms of variability ratings (perceived variance).

This avenue of inquiry has led us to the presented results, but has also raised some new, interesting questions. Further investigation is required to understand the complete picture that price sequences represent. Even so, we have already found that price sequences have a significant impact on choice through the combined impact of mean, trend, and perceived variance.

References

Needham Heights, MA: Simon and Schuster.


Culture Matters: The Impact of Power-Distance Belief on Consumers’ Impulsive Buying Tendency
Yinlong Zhang, University of Texas, San Antonio, USA
Vikas Mittal, University of Pittsburgh, USA

EXTENDED ABSTRACT
Impulsive buying behaviors are very common, with some estimates attributing impulse buying to over four billion dollars of annual sales in the U.S. (Agins 2004).

Recently, research has explored the relation between culture orientation and impulsive consumption. Kacen and Lee (2002) provided correlational evidence of an interrelation between individualism–collectivism (and independent–interdependent self-construal), trait buying impulsiveness, and impulse buying behavior. They reasoned that consumers from individualistic societies may exhibit more impulsive consumption than those from collectivistic societies, because collectivistic members suppress the impulse more than do individualistic members. Consistent with this hypothesis, they found that measures of trait impulse buying were more predictive of actual impulse buying behavior for individualists than for collectivistic members.

Although the results are correlational, and thus vulnerable to many possible alternative interpretations, they have some interesting implications. For one implication, they suggest that cultural constructs related to individualism and collectivism such as power-distance belief should have corresponding influences on impulsive buying tendency. Building on the literature on power-distance belief and the control thesis proposed by Baumeister (2002) to explain impulsive buying tendency, we hypothesized that consumers with high power-distance belief are less likely to display impulsive buying tendencies than those with low power-distance belief. We also explored the moderating role of utilitarian versus hedonic processing objectives and the availability of self-control resource.

Four studies were run to test these possibilities. In study 1 we used a cross-country dataset comparing consumers on their impulsive shopping tendency. The dataset was from a 2003 ACNielsen |ShopperTrends study which polled around 15,000 urban households across 15 Asia Pacific markets, and our hypothesis was confirmed. Building on this secondary data, in study 2 we tested the role of power distance belief by measuring power-distance belief and tested its effect on an established impulsive buying scale (Rook 1987). At study 3, we tested this hypothesis by priming power-distance belief and tested its effect on an indirect buying scenario. In study 4, we tested the moderating role of hedonic versus utilitarian processing objectives in the relationship between power-distance belief and impulsive buying tendency. Results show that consumers with a high power-distance belief tend to show less strong impulsive buying tendency. Conversely, consumers with a low power-distance belief tend to show stronger impulsive buying tendency. Further, the effect of power-distance belief on impulsive buying tendency is stronger when consumers engage in utilitarian than hedonic processing objectives.

References
ACNielsen (2003). Hong Kong shoppers ranks 1st in Asia in unplanned shopping.