The Perceived Value of Time in a Transaction

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Prospect Theory, which focuses on people’s perceptions of monetary gains or losses, is applied in the present research to explain consumers’ perceived value of time as a function of time spent searching and purchasing a product or service. In order to test participants’ perceived values of time, a computer program was constructed to simulate actual waiting in line at a bank. Respondents were then tested for their perceptions of gains or losses. The results support the suggestions of Prospect Theory with respect to consumers’ perceptions of time and its value beyond the original monetary gains or losses.

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EXTENDED ABSTRACT

Prospect Theory (Kahneman and Tversky 1979) focuses on people’s perceptions of monetary gains or losses. This theory has been applied to various marketing areas, such as reference pricing, purchasing choices, gift giving, and insurance purchases (Thaler 1985; Erdem, Mayhew and Sun 2001; Lemon and Nowlis 2002). Considering that searching and purchasing a product or service “costs” consumers’ time (i.e., require time to accomplish) (Becker 1965; Zeithaml 1988; Okada and Hoch 2004; Leclerc, Schmitt, and Dube 1995), Prospect theory should be able to explain consumers’ perceived values of time. Prior research has applied this theory to consumers’ perceptions of wait-time (Leclerc et al. 1995; Soman 2001). However, previous studies in this area all used scenarios and asked for the participants to recall their feeling of waiting. The current research argues that unlike money, judging the value of time is not a routine activity to consumers; the perceived value of time or the feeling of waiting is hard to retrieve accurately from memory. Therefore, an actual wait scenario is tested to create whether Prospect Theory is possible to explain consumers’ perceived values of time during a transaction. In addition, consumers’ perceptions may be different when they are in a hurry than when they are not in a rush. Past research indicated people are more concerned about time when they experience pressure from lack of adequate time (Schriber and Guteck 1987; Edwards, Baglioni, and Cooper 1990). Time pressure, then, is a covariate in the current research.

The value function of Prospect Theory has three major features. First, the value function is defined over perceived gains and losses relative to some natural reference point. Second, the value function is described as a concave line for gains and a convex line for losses. Third, the loss function is steeper than the gain function. As stated above, if one treats time spent on a purchase as a cost, then these three features of Prospect Theory may also be applied to consumers’ perceptions of time in three ways. First, consumers feel happier when the actual time they spend during a transaction is less than their expected time; whereas consumers are annoyed or frustrated when the actual time of a transaction is more than the expected time. Second, the marginal perceived value of saving time decreases as the magnitude of the time difference increases, while the marginal perceived loss of waiting decreases as the magnitude of the time difference increases. For instance, Ms. A, who wastes an extra 30 minutes while banking because a clerk suddenly left for lunch, should feel less unhappy than Mr. B, who waits 30 minutes due to two clerks leaving for lunch one after the other. The 30 minutes of extra waiting for Mr. B is separated into two sections since two clerks left, making it more annoying than Ms. A’s experience, even though they both waited an identical 30-minutes. Third, the perception of a negative value (i.e., waiting a longer time) is larger than the positive value (i.e., waiting a shorter time) over the same time period. For example, Ms. C saves 15 minutes and Mr. D wastes 15 minutes: Mr. D’s aggravation due to the experience of losing 15 minutes is likely to be greater than Ms. C’s pleasure associated with gaining 15 minutes.

This experiment employed a computer program to simulate the wait-time in a bank. Participants were randomly assigned into one of four computerized experimental conditions: opened counters once, opened counters twice, closed counters once, and closed counter twice. The experiment consisted of a 2 (opened or closed counters) × 2 (once or twice) between-subject design. The dependent variable is the consumer’s perceived value of time. The computer program simulated the waiting conditions in a bank as well as assigned numbers to indicate turn of service. After several virtual customers were served, participants built up an expectation for their wait-time which would be their internal reference point for further saving or losing time later. During the waiting process, one or two counters opened or closed to speed up or slow down the service. The feeling of gaining or losing time was then created.

A 2-way ANCOVA is employed on the data set of 93 respondents to examine the relationship between the gains or losses of time and the perceived value of time, with time pressure as the covariate. The results indicate that the three features of Prospect Theory are also applicable to consumers’ perceived values of time. First, consumers’ perceived value of time is defined as their perceived time gains and losses relative to their expected wait-time as the reference point. Second, consumers’ perceived value of time is a concave line for gains and a convex line for losses. Third, the valence of consumers’ perceived time loss is stronger than a perceived time gain. Furthermore, consumers’ perceived values of time increase as the level of time pressure increases in both gain and loss conditions. In other words, when consumers are in a hurry, they are more sensitive to the time and the function of time is valued more highly than if time is not a factor or concern.

References


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