What is Marketing Time Pressure?

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Abstract: Purchasing behavior under time constraints differs from purchasing behavior without time constraints because of the pressure felt by consumers. This situation is called “time pressure.” This paper summarizes the methodologies and findings of prior research regarding time pressure and finds that (a) despite investigations of the impact of time constraints, time pressure has not been directly measured; and (b) the length of the time constraints in these studies was short, ranging from several seconds to several minutes, so the practical meaning for marketing is unclear. Although the term “time pressure” itself may be a bit dated, marketing research on time pressure is an unexplored field that holds promise for the future.

Keywords: time pressure, consumer behavior, marketing

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Introduction

Consumers are driven by the need to make decisions under time constraints in various settings. For example, in the case of home shopping TV networks, consumers must decide whether to purchase a product before the end of the show. Even in online shopping on Amazon or the Rakuten Marketplace, consumers must decide whether to buy a product before the sale is over.\(^1\) Limited-time offers are a specific marketing tactic, with corporations attempting to get consumers to buy by making them think that if they don’t buy the product immediately, they will never be able to buy it at that price again or won’t be able ever to get that product again.

However, almost no research has directly discussed the impact of limited-time offers on consumers. There are studies comparing consumer behavior under various time constraints (e.g., Dhar & Nowlis, 1999; Ordóñez & Benson, 1997; Schellinck, 1983; Wright, 1974). These studies focus on the psychological stress of “time pressure” felt by consumers (Suzuki, 2004). Actually, the concept of time pressure has been in existence since Garfield (1946) and March and Simon (1958), and a number of studies on consumer behavior and psychology have been conducted. This paper summarizes prior research and considers possible applications for the findings of time pressure research on the use of limited-time offers.

Time Pressure Research

The concept of time pressure made its debut in the 1960s in discussions of consumer behavior and in the field of marketing (Howard, 1963). In stating that time pressure is an exogenous

\(^1\) Ichikohji and Katsumata (2017) point out that users who own a number of information devices are power users of those devices, so limited-time offers are likely to become more prevalent in online marketplaces in the future.
variable and is situation specific to decision-making, Howard and Sheth (1969) noted the existence of time pressure as one factor influencing consumer behavior, and this study has since been quoted in almost every study on time pressure in consumer behavior.

Wright (1974) is often quoted as an empirical study in studies on time pressure, such as Ordóñez and Benson (1997). In an experiment evaluation behavior vis-à-vis automobiles, Wright (1974) created three categories—conditions under which subjects feel strong time pressure (time limits of 10 seconds), conditions under which subjects feel weak time pressure (time limits of 40 seconds), and conditions under which subjects feel no time pressure whatsoever (time periods with no set limits)—and found that it was easier for consumers to focus on negative information when time periods were shorter.

Ben Zur and Breznitz (1981) used time periods of 8, 16, and 32 seconds to experiment on choices made in a gambling situation with different probabilities of winning, and observed a tendency to focus on negative information as the time periods became shorter.

Schellinck (1983) conducted experiments on evaluating the quality of pagers based on two types of clues (one with a high level of predictability but low level of reliability, and the other with a low level of predictability but a high level of reliability). When subjects were divided into two groups—those evaluating the quality of a pager and those evaluating the quality of both pagers and cameras—with the same time constraints, the latter group showed a tendency to focus on information with low predictability but high reliability.

Nowlis (1995) experimented on consumers selecting one of two brands from among 18 product categories, such as batteries and video decks. For each product category, consumers were divided into a group with a 15-second time constraint and a group with no time constraint. Consumers tended to select the higher-quality brand when they were under a time limit.

Pieters, Warlop and Hartog (1997) experimented with eye tracking
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on four product categories (rice, shampoo, canned soup, and salad dressing) by stimulating subjects with photographs of six lesser-known brands on a shelf. Dividing subjects into a group with 7 seconds of stimulus and a group with 20 seconds of stimulus, the researchers found that the group with less time tended to choose more written information and less visual information. The same results were noted in Pieters and Warlop (1999).

Ordóñez and Benson (1997) conducted experiments on evaluating attractiveness and maximum purchase prices in gambling situations with various probabilities of winning and various jackpots. In experiment 1, subjects were given a range of tasks, half of which had no time limit and half of which did. In experiments 2 and 3, half of the tasks had no time limit, while the remaining half was divided into tasks with time limits and tasks without time limits. Based on average reaction times in pretests, the time limits for each trial were set at 3.08 seconds for evaluating attractiveness and 4.78 seconds for determining the purchase price. Results showed that when the task of evaluating attractiveness had a time limit, subjects tended to use different decision-making strategies than when there was no time limit.

Dhar and Nowlis (1999) experimented with decision-making by having subjects imagine the actual purchasing process. Consumers were given a choice between two products, as well as a third option of “choice deferral,” whereby they would not buy either product but instead go to a different store. In experiments 1–4, subjects were divided into a group with no time limits and one with a 15-second time limit. In experiment 5, subjects were divided into a group with no time limit and one with an 18-second time limit. Results showed that the groups with time limits tended to consider unique information but not consider common features, and that groups with time limits tended to defer their choices.

Suri and Monroe (2003) used scenarios to manipulate the
motivations of consumers in an experiment evaluating the quality of cordless telephones and TV sets. As with Ordóñez and Benson (1997), this study measured evaluation times in pretests, with time limits of 1, 2, 2.5, 3, and 3.5 minutes for cordless phones, and 1.25, 2.5, 3, 3.5, and 4 minutes for TV sets. When motivation was low, lower-priced products had a reverse U-shaped relationship as evaluations became higher under medium time pressures, while high-priced products had a U-shaped relationship. When motivation was high, there was a tendency toward higher evaluations as time limits shortened, regardless of price.

Rieskamp and Hoffrage (2008) conducted experiments consisting of 56 tests choosing among four options based on six clues related to each option. In study 1, subjects were divided into two groups with 20-minute and 48-minute time limits, while in study 2, the two groups had time limits of 20 seconds and 50 seconds for each decision. The findings were that there was a tendency to use lexicographic-heuristic decision-making strategies when time limits were shorter and weighted-additive decision-making policies when time limits were longer.

El Haji, Krawczyk, Sylwestrzak and Zawojska (2016) divided subjects into two groups, with 25-second and 6-minute time limits, for an experiment in online auction bidding with various probabilities of winning. The likelihood of bidding was lower among those with short time limits.

Table 1 summarizes the methodologies and findings of these experimental studies.

What Is Time Pressure?

Hawes (1980) reviewed the research of Engel, Blackwell and Kollat (1978), Howard and Sheth (1969), and others and held that studies conducted prior to 1980 did not accurately define time pressure and
that time pressure needed to be defined in a way that is easy to apply in discussions of consumer behavior. Ben Zur and Breznitz (1981) defined time pressure as the amount of information that must be processed in a certain period of time, or the amount of time given to process a certain amount of information (Ben Zur, & Breznitz, 1981, p. 89). Suri and Monroe (2003) stated, “time pressure can be viewed as a perceived limitation of the time available to consider information or make decisions” (Suri & Monroe, 2003, p. 92). However, as was seen in the previous section, many experiments do not measure time pressure itself, but merely set conditions such as the presence of absence of time limits and time limit lengths. In other words, as Suzuki (2004) pointed out, research on time pressure confuses time pressure with time constraints.

Traditionally, time pressure has been taken to mean a certain state of psychological stress during which consumers must make a purchasing decision within a limited amount of time (Suzuki, 2004, p. 67). Given that definition, several studies based on questionnaire surveys (i.e., not experiments) may perhaps be more direct studies of time pressure. Ando (2007) measured time pressure by asking people who purchased a custom home, “Did your home purchase require urgency?” This study noted that feeling time pressure tended to reduce the amount of information processed and increase the perceived risk. Lin and Chen (2013) surveyed users of Taiwan’s Taoyuan International Airport regarding their motivations for shopping and the degree of time pressure felt. They found a positive relationship between the motivation to shop and commercial activity in the airport, although time pressure weakened this relationship. Sohn and Lee (2017) surveyed tourists making purchases at duty free shops in Seoul hotels to show that, when shopping at these stores, time pressure stimulated negative emotions and increased emotional impulse purchases.
Concluding Remarks

Table 1 shows that most prior research sets time limits ranging from several tens of seconds to several minutes. In contrast, limited-time offers in supermarkets and elsewhere run from several tens of minutes to several hours. Limited-time offers on Amazon, Rakuten, or other e-commerce sites run from several hours to several days. Product exhibitions at department stores run from several days to several weeks. No experiments have dealt with the impact of meaningful time limits of several hours to several weeks from a marketing perspective.

For example, Wright (1974) and Ben Zur and Breznitz (1981) both found that as time limits become shorter, there is a tendency to focus on negative information. However, is the trend for units of time in tens of seconds the same as that for longer periods of time that encompass several hours or weeks? Or doesn’t the “choice deferral” of Dhar and Nowlis (1999), although its decision options are questionable (Mitomi, 2016), become more meaningless as time limits lengthen? In that sense, although the term “time pressure” itself may be dated, marketing research on time pressure is an unexplored field that holds promise for the future.

Acknowledgments

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2 Decision deferral may be influenced by satisfaction with choices and the “weight of the future” mentioned in Takahashi (2013).
## Table 1. Prior Research Method

<table>
<thead>
<tr>
<th>Article</th>
<th>Research Method</th>
<th>Time Pressure Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ordóñez and Benson (1997)</td>
<td>Experiment evaluating the charm of gambling and judging maximum purchase price of gambling</td>
<td>Evaluating 3.08 seconds and pricing 4.78 seconds vs no limit</td>
</tr>
<tr>
<td>Pieters et al. (1997)</td>
<td>Experiment using eye tracking</td>
<td>7 seconds vs 20 seconds</td>
</tr>
<tr>
<td>Ben Zur and Breznitz (1981)</td>
<td>Experiment on choosing gambling</td>
<td>8 seconds vs 16 seconds vs 32 seconds</td>
</tr>
<tr>
<td>Nowlis (1995)</td>
<td>Experiment to select between two brands</td>
<td>15 seconds vs no limit</td>
</tr>
<tr>
<td>Dhar and Nowlis (1999)</td>
<td>Experiment to select among three choices, including choice deferral</td>
<td>15 seconds vs no limit</td>
</tr>
<tr>
<td>Dhar and Nowlis (1999)</td>
<td>Experiment to select among three choices, including choice deferral</td>
<td>18 seconds vs no limit</td>
</tr>
<tr>
<td>Rieskamp and Hoffrage (2008)</td>
<td>Based on six clues, an experiment to select from four options (56 times)</td>
<td>For each trial, 20 seconds vs for each trial, 48 seconds</td>
</tr>
<tr>
<td>El Haji et al. (2016)</td>
<td>Experiment to bid on auction</td>
<td>20 seconds vs 6 minutes</td>
</tr>
<tr>
<td>Suri and Monroe (2003)</td>
<td>Experiment to evaluate cordless telephone quality</td>
<td>1 minute vs 2 minutes vs 2 minutes 30 seconds vs 3 minutes vs 3 minutes 30 seconds</td>
</tr>
<tr>
<td>Suri and Monroe (2003)</td>
<td>Experiment to evaluate television quality</td>
<td>1 minute 15 seconds vs 2 minutes 30 seconds vs 3 minutes vs 3 minutes vs 4 minutes</td>
</tr>
<tr>
<td>Rieskamp and Hoffrage (2008)</td>
<td>Based on six clues, an experiment to select from four options (56 times)</td>
<td>Together with all trials, 20 minutes vs together with all trials, 48 minutes</td>
</tr>
<tr>
<td>Wright (1974)</td>
<td>Experiment evaluating a car</td>
<td>40 seconds vs record elapsed time at 10-second intervals vs no limit</td>
</tr>
<tr>
<td>Schellinck (1983)</td>
<td>Experiment to evaluate pager quality</td>
<td>Evaluation of pagers and cameras vs evaluation of pagers at the same time</td>
</tr>
</tbody>
</table>
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References


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