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Eric A. Greenleaf; Donald R. Lehmann

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Reasons for Substantial Delay in Consumer Decision Making

ERIC A. GREENLEAF
DONALD R. LEHMANN*

This study proposes a typology of reasons why people substantially delay important consumer decisions. The delay reasons we study are drawn from delay typologies identified in other contexts as well as from the product diffusion literature. Two studies reported here examine why subjects delay consumer decisions. These support most of the reasons in the proposed typology, while some unanticipated delay reasons also emerge. We find that the delay reasons are related to the reasons consumers stop delaying, a process that we call delay closure, and are also related to the amount of time that consumers spend in different stages of the decision-making process. A final study supports a conceptual framework to classify these delay reasons based on the two dimensions of internal versus external locus of causation, and whether the purpose of delay is related to the decision or to unrelated activities.

Substantial time often elapses between the time consumers recognize the need for a product and the time they actually purchase it. One reason for this is that decision making itself takes time. Consumers engage in *active decision time*, which is time spent on activities such as gathering information, comparing alternatives, and deciding where to purchase. Active decision time in consumer decisions and the extent of information search have been studied extensively (Beatty and Smith 1987; Duncan and Olshavsky 1982; Furse, Punj, and Stewart 1984; Kiel and Layton 1981). However, the need for active decision time does not explain why consumers often allow months or years to elapse while they make these decisions, even when they intend to purchase quickly. For example, only 25 percent of consumers intending to buy a personal computer in the next 12 months will actually do so (Morwitz and Schmittlein 1992).

Thus it is also important to study *total decision delay time* in consumer decision making, which we define as the *total elapsed time* between need recognition and purchase. Decision delay time includes both active decision time and time the consumer spends on all other

activities during the decision process. Decision delay time can considerably exceed active decision time—a consumer might spend five hours searching for information on fax machines and then purchase in the same day, or spend two hours in March, three more hours in July, and purchase in August. Studying active decision time alone would not explain why one purchase occurred quickly while the other was delayed for months.

The Need for a Typology of Why People Delay Consumer Decision Making

Researchers in several different contexts have constructed fairly comprehensive typologies of the reasons people delay decisions or tasks. These include seeking help for a distressing personal problem (Amato and Bradshaw 1985), urban development decisions (Hogarth, Michaud, and Mery 1980), writing undergraduate term papers (Lay 1988; Solomon and Rothblum 1984), and completing personal projects (Lay 1986) or everyday tasks (Milgram, Sroloff, and Rosenbaum 1988).

To date there has been no attempt to build a typology of the reasons people delay consumer decision making. Research has, however, examined how the timing of consumption experiences affects consumers' utility, thereby suggesting possible causes of delay. For example, the utility that consumers expect to derive from a single purchase is affected by how the gains (benefits) and losses (costs) that the purchase creates are distributed over time (Mowen and Mowen 1991). Consumers can also use a temporal "reference point" to judge utility, and they tend to demand a higher reward to delay consumption a given amount of time after this reference

*Eric A. Greenleaf is associate professor of marketing at the Leonard N. Stern School of Business, New York University, New York, NY 10012. Donald R. Lehmann is the George E. Warren Professor of Business at the Columbia Graduate School of Business, New York, NY 10027. The authors would like to thank three anonymous reviewers, Kent Monroe, and Brian Sternthal for their helpful comments. They would also like to thank Lauren Block, Kim Corfman, Vicki Morwitz, and Joel Steckel for their comments on earlier drafts of this article.

point, compared to the sum that they will pay to accelerate consumption the same amount of time before this point (Lowenstein 1988). Other research has examined the order in which consumers prefer to experience a series of consumption outcomes. Outcomes that are perceived as unrelated are preferred in a time series with descending utility, but related outcomes are preferred in ascending order (Lowenstein and Prelec 1993). Consumers also prefer to experience pleasant outcomes after experiencing unpleasant ones, rather than the reverse (Ross and Simonson 1991). While this research suggests some possible reasons for delay in consumer decision making, it focuses on situations in which consumers have completed all steps of decision making except purchase and they can purchase whenever they wish. However, many reasons for consumer delay may be related to earlier stages of the decision-making process, such as need recognition, gathering information, or evaluating alternatives.

This article proposes a typology of reasons for consumer delay that can occur in the different stages of the decision-making process up to purchase. Our intent is to identify a reasonably comprehensive set of the most important reasons why consumers delay and to examine whether a particular group of consumers (graduate students) delay for these reasons. Our study also examines why consumers eventually stop delaying, a process we call delay closure. This is an important corollary to delay, because consumers who delay for a particular reason should tend to stop delaying once that reason is removed or superseded.

We are also interested in building a conceptual framework to classify delay reasons. We find that these reasons vary on two dimensions: (a) whether the delay is related to the decision or is instead due to unrelated activities, and (b) whether the locus of causation for the delay lies with the consumer or with some factor external to the consumer.

The Scope of the Proposed Delay Typology

Delay reasons may vary across consumer segments and types of purchases, and we do not attempt to identify all reasons that can potentially cause delay. The present study focuses on six considerations: First, we focus on reasons that are important across many product categories and consumers, rather than to only a small number of consumers or situations. Second, we focus on substantial delay, defined here as when at least one month elapses between need recognition and purchase. Third, we examine only decision-making processes that eventually lead to a purchase, and we do not address delay that continues indefinitely (Dhar 1995). Fourth, we focus on fairly expensive, high-involvement purchases, which often require an extensive decision-making process. Fifth, we focus on delay for decisions involving products, and we exclude services. Sixth, we focus on a particular segment, graduate business stu-

dents. Because delay reasons may depend on characteristics such as age, income, or education level, the delay reasons identified from this sample may not generalize to all consumer groups, such as senior citizens, and so forth. Student samples have been studied in other research on delay (Lay 1986, 1988; Milgram et al. 1988; Solomon and Rothblum 1984).

The article proceeds as follows. First we propose a typology of reasons why people delay consumer decisions. We then report results from study 1, where students described in their own words why they delayed and closed delay for a purchase. Next we describe study 2, where another sample rated the importance of delay and delay closure reasons derived from these descriptions. These responses are used to assess whether the subjects delay for the proposed reasons, by examining whether (1) the proposed delay reasons emerge from the ratings obtained in study 2, (2) subjects who delay for a particular reason stop delaying when that reason is addressed or superseded, creating links between delay reasons and delay closure reasons, and (3) the delay reasons are statistically related to the time that subjects report delaying. These tests generally support the typology and also reveal unanticipated delay reasons. We then propose a framework for classifying delay reasons, based on the dimensions of whether or not the purpose of the delay is related to the decision, and whether the consumer perceives that the delay is caused by themselves or by some external factor. In study 3 we use a new sample of students to rate their delay reasons on these dimensions, and we find support for this framework. We conclude by discussing some limitations of the study and directions for future research on delay in consumer decision making.

A TYPOLOGY OF REASONS WHY PEOPLE DELAY CONSUMER DECISION MAKING

The proposed typology draws on delay reasons identified in typologies of delay or procrastination developed in other contexts that should apply, in modified form, to consumer decision making. We also draw delay reasons from research on factors that slow the diffusion of product innovations, given that this creates delay. We believe these reasons should affect consumers in general, and word the propositions accordingly, but we also remind readers that we use a student sample to evaluate the existence and impact of these reasons.

People feel they delay decisions because the demands of other decisions and activities prevent them from devoting time to the decision of interest (Amato and Bradshaw 1985). People also procrastinate because they have "too many other things to do" (Solomon and Rothblum 1984). Perceived time pressures should also cause delay in attending to consumer decisions. Thus,

P1: Consumers delay decision making because they perceive that they do not have enough time to devote to the decision.

People procrastinate more when they are averse to a task and want to avoid it (Solomon and Rothblum 1984). Procrastination also increases when a person has a negative emotional response to a task and finds it unpleasant (Milgram et al. 1988). Task avoidance can also cause delay in consumer decisions. While some consumers have a positive attitude toward shopping and may attend to this task more quickly, others find it an unpleasant task that they delay (Beatty and Smith 1987). Thus,

P2: Consumers delay decision making because they feel shopping for the product is an unpleasant task that they wish to avoid.

People delay making decisions when they are uncertain about the consequences of their actions (Hogarth et al. 1980). Furthermore, people procrastinate more when they are uncertain of success and fear the consequences of failure (Solomon and Rothblum 1984). In the consumer context, uncertainty and fear of failure can create perceived risk (Kaplan, Szybillo, and Jacoby 1974). Thus,

P3: Consumers delay decision making because they experience perceived risk.

People delay decision making because they need to obtain someone else's advice or assistance (Amato and Bradshaw 1985). This reason can motivate delay when a helper is not immediately available or when obtaining help is inconvenient. Consumers, too, often must rely on advice from family members, "purchase pals," and salespeople. Thus,

P4: Consumers delay decision making because they rely on advice from others and cannot easily or immediately obtain this advice.

People delay decisions when faced with "*procedural uncertainty* . . . concerning means to handle and process the decision, e.g., specifying relevant uncertainties, what information to seek and where, how to invent alternatives and assess consequences, etc." (Hogarth et al. 1980, p. 110). This uncertainty can also operate in consumer decisions and cause delay. Thus,

P5: Consumers delay decision making because of procedural uncertainty over how to gather information on products, identify the relevant set of products and product attributes to consider, and establish the importance of each attribute.

Corbin (1980) proposes that people delay "to undertake the acquisition of data" (p. 52), and this reason may also delay consumer decisions. Consumers feel more satisfied and certain and less confused about de-

isions when they acquire more information (Jacoby, Speller, and Kohn 1974). Furthermore, consumers may continue to gather information as long as the "cost" of gathering and processing it is less than the benefit it bestows (Shugan 1980). Thus,

P6: Consumers delay decision making to gather more information on alternative product offerings.

Many high-involvement purchases are new products. Sometimes consumers intend to buy a new product but intentionally delay doing so in the near future, which creates a segment who have adopted but not yet bought (Mahajan, Muller, and Bass 1990). Consumers can delay adopting a new product because they feel its price is too high (Bass 1980; Robinson and LaKhani 1975) or they expect its price to fall (Holak, Lehmann, and Sultan 1987; Horsky 1990; Narasimhan 1989). Even when a product is not new to the market, consumers may delay purchasing because they anticipate regret if they buy now only to see prices fall later (Simonson 1992). Thus,

P7: Consumers delay decision making because they expect a product's price to fall.

Consumers also adopt innovations more slowly when they are suspicious of a product's quality (Horsky 1990) or expect that its quality will improve (Holak et al. 1987). In this sense quality includes a product's technology or the usefulness of its attributes. This reason can also apply to existing products that are gradually improved. Thus,

P8: Consumers delay decision making because they expect improvements in a product's attributes, technology, or overall quality.

We next describe two studies that together assess whether one group of consumers, graduate students, delays for these reasons.

STUDY 1: SELF-DESCRIPTIONS OF REASONS FOR DECISION DELAY

In study 1, 59 students at two graduate business schools described, in writing, a product (services were excluded) that they had purchased in the last 12 months, that had cost at least \$100, and that they delayed purchasing for at least one month. Delay was defined as "the time that elapsed between the time you recognized the need for the product and the time you purchased it." The subjects then described in their own words the reasons why they delayed this consumer decision and then described on a different page the reasons they stopped delaying.

These subjects provided 200 delay reasons and 135 delay closure reasons. In many cases, different subjects described very similar reasons. To eliminate redundant

reasons two independent judges not informed of the proposed typology were asked to describe all of the distinct delay and delay closure reasons in these descriptions. They were instructed to treat as redundant only reasons that were "very close in meaning," and not those "similar in meaning." The judges identified and described 50 distinct delay reasons and 31 distinct delay closure reasons. The authors then wrote a statement to describe each of the reasons, for use in study 2, and checked with the judges to ensure that the items conveyed the meaning the latter intended. These statements are reported in Table 1.

STUDY 2: UNDERLYING STRUCTURE OF DELAY AND DELAY CLOSURE REASONS

Method

In study 2 a new sample of students rated the importance of the delay and delay closure items derived from the consumer descriptions in study 1, for a purchase that they had substantially delayed. They also reported how much time they spent in each stage of the decision-making process for this decision. Subjects were screened by asking whether they had made a major product purchase (services were specifically excluded) costing at least \$200 in the last six months and, if so, whether they had delayed purchasing the product for at least one month.¹ Those passing this screen described the product, the price paid, and whether this was a first-time or repeat purchase for this product.

Subjects next reported how much *total* time elapsed "between the time you realized you needed this general type of product and the time you actually purchased it." On a separate page they also reported time spent in *each stage* of the consumer decision-making process up to actual purchase.² This included elapsed time between the following successive events (Engel and Blackwell 1982, p. 33): (1) beginning of need recognition, (2) beginning of information search, (3) deciding which alternative(s) were acceptable to purchase, and

¹The minimum price was raised from \$100 in study 1 to \$200 in study 2 because almost all purchases reported in study 1 were above \$200.

²Because the reports of delay times are made from memory, they may contain recall errors, including telescoping (Rubin and Baddeley 1989). To reduce these errors we limited purchases to ones made a maximum of six months earlier. This retrospective time frame is similar to that used in previous studies of consumer decision making. Furse et al. (1984) and Kiel and Layton (1981), who study active decision time, report averages of 28 weeks and four months, respectively, between the time consumers purchased an automobile and the time they completed a retrospective survey. Recall errors should be less serious in studies of delay time than active decision time, because in the latter consumers must recall time spent in each of many different activities, each of which may have occurred on several different occasions, while for delay time consumers must recall only the continuous elapsed time between the beginning and end of each decision stage.

(4) purchase.³ The times between these four points create three stages of decision making: Stage I (between points 1 and 2), Stage II (between 2 and 3), and Stage III (between 3 and 4). Note that Stage II includes both the information-search and alternative-evaluation stages of decision making. We grouped these stages together because in a pretest many subjects mentioned that their information-gathering and alternative-evaluation activities occurred simultaneously and preferred that the two activities be grouped together, while they did not report difficulty separating elapsed time in the other stages.

The subjects rated how important each of the 50 distinct delay reasons identified in study 1 was in causing them to delay the decision, using a Likert scale ranging from 1 (no influence) to 6 (an extremely important influence).⁴ They then used the same scale to rate the 31 delay closure reasons.

A sample of 95 students enrolled in two graduate business schools completed the survey, which resulted in 93 usable responses. This sample was 33 percent female and 67 percent male, with an average age of 27.8 years. As an incentive to complete the survey, subjects were paid \$5 and entered in a lottery drawing with a grand prize of \$200.

Extent of Consumer Delay

The purchases reported represent a broad cross-section of the types of major purchases made by graduate students. These products included home appliances and electronics (24 purchases), personal computers and peripherals (21), clothing (17), furniture (12), sports equipment (9), automobiles (5), and miscellaneous products (5). The mean price paid for the purchases was \$1,585 (SD = \$3,731).⁵ The median price paid was about \$400, with quartiles of about \$275 and \$1,400. Of the purchases, 56 percent represented a first purchase in the product category while 44 percent were repeat purchases.

³This study, in common with most previous consumer research, treats these decision phases as sequential, while acknowledging that consumers may sometimes simultaneously engage in phases—for example, considering need or gathering more information on alternatives, even while in a store that they visited with the intention of purchasing a specific brand.

⁴Responses to these scales may be affected by differences in how individuals interpret the wording of each scale interval, and the fact that the highest interval uses the word "extremely," which is not the absolute highest possible importance. These differences can either attenuate or exaggerate relationships between variables measured with these rating scales and other variables in this study, such as delay times and the importance of delay closure reasons (see Saris 1988, esp. chaps. 1, 8, and 9).

⁵Without the five car purchases, which cost from \$7,000 to \$24,000, this mean was \$794 (SD = \$777).

TABLE 1

DELAY AND DELAY CLOSURE ITEMS IN STUDY 2 SURVEY

	Importance	
	Mean	SD
Delay items:		
1. Other things had higher priority.	4.27	1.57
2. I wanted to get a better idea of prices charged at different stores.	4.05	1.70
3. I was too busy to devote time to this decision.	3.56	1.40
4. Shopping for the product was time consuming.	3.48	1.57
5. I wanted to avoid any regrets over having made the wrong decision.	3.45	1.82
6. There were many alternative brands or models to consider.	3.44	1.67
7. I like to take time to think over big purchases.	3.44	1.66
8. There were many different product characteristics/features to consider.	3.43	1.60
9. I wanted to know more about different brands or models.	3.41	1.60
10. I couldn't afford to make the purchase at that time.	3.19	1.78
11. I expected the price to decrease soon.	3.02	1.84
12. The purchase of this product represented a substantial portion of my income/budget.	2.97	1.64
13. I was reluctant to actually spend the money, even though I had the money to buy the item.	2.97	1.66
14. The alternatives were so similar that it was hard to select the best one.	2.80	1.55
15. I already had something which served as a substitute for this product at home.	2.70	1.72
16. I needed to check with someone else before making a choice.	2.48	1.71
17. I don't like shopping in general.	2.47	1.74
18. I needed to get other people to agree on the choice.	2.38	1.69
19. I wanted to get someone else's help in making the decision.	2.35	1.56
20. I was unsure I would use the product enough to justify buying it.	2.30	1.64
21. I wanted to get a better idea of the service offered at different stores.	2.30	1.59
22. I had access to a product like this, either at work or somewhere else not at home.	2.28	1.77
23. If I was very dissatisfied with the product I purchased I could not afford to buy another.	2.25	1.75
24. Shopping for the product was unpleasant.	2.20	1.26
25. I wanted to select a product which would make other people think highly of me.	2.05	1.43
26. I thought a better product might be introduced soon.	2.01	1.58
27. I had made poor purchase decisions in the past.	1.99	1.35
28. I was considering spending the money on something which was very different from the product, and therefore hard to compare with it.	1.96	1.61
29. I was concerned that the product would not work satisfactorily.	1.94	1.41
30. I thought my preferences might change.	1.92 ^a	1.30
31. Once the purchase was made, additional effort would still be required to install and/or learn to use the product.	1.86	1.49
32. It was difficult to find a place where I could examine or buy the product.	1.84	1.40
33. I didn't feel the salespeople were providing accurate information.	1.83 ^a	1.26
34. The decision depended on another decision which was not yet made.	1.78	1.33
35. I was unsure what could go wrong with the product.	1.76	1.35
36. A number of people gave conflicting advice.	1.70 ^a	1.15
37. I was concerned that the product was not reliable.	1.67 ^a	1.26
38. I was not sure which stores carried the product.	1.52 ^a	.93
39. I was planning to move and wanted to wait until after I moved to make the purchase.	1.52 ^a	1.29
40. I felt none of the available brands and models met my needs.	1.47 ^a	1.10
41. I had a particular brand in mind that I wanted to buy, but I couldn't find it.	1.46 ^a	1.10
42. I didn't know where to go for information.	1.39 ^a	.89
43. I hoped the situation for which the product was needed would go away.	1.38 ^a	.93
44. I expected to be given the item as a gift.	1.37 ^a	1.16
45. I needed to know more about what I could use the product for.	1.37 ^a	.92
46. I couldn't make the decision on my own, but didn't want to impose on others to get help.	1.35 ^a	.87
47. The product was not consistent with the way I view myself.	1.34 ^a	.84
48. The problem/situation for which the product was intended was unpleasant to think about.	1.31 ^a	.69
49. I was concerned that my purchase of the product would negatively affect other peoples' opinion of me.	1.20 ^a	.60
50. I had trouble picturing myself using the product.	1.12 ^a	.55
Delay closure items:		
1. There was a particular event or situation in the near future where I would need this product.	3.63	1.93
2. The price for the product was lowered in a sale or discount.	3.56	1.86
3. I found the brand or model I wanted.	3.41	1.87
4. I thought my usage rate for this product was about to increase.	3.38	1.95
5. I knew I would be busy in the future and wanted to buy the product now while I had the time.	3.19	1.76
6. I was able to justify spending the money.	3.10	1.88
7. I encountered a product I really liked.	3.09	1.88
8. I decided which of the available alternatives I wanted.	3.08	1.71

TABLE 1 (Continued)

	Importance	
	Mean	SD
9. I was becoming tired of shopping for the product, and buying the product meant I wouldn't have to shop for it anymore.	2.87	1.66
10. I finally had time to make the purchase.	2.85	1.69
11. I felt like treating myself.	2.56	1.78
12. I felt I was procrastinating excessively.	2.53	1.59
13. I was at a location or particular store that was a good place to buy the product, and I wouldn't be back for some time.	2.40	1.81
14. I felt the price of this product had been permanently lowered.	2.37	1.73
15. I didn't expect the product would be further improved or upgraded in the near future.	2.34	1.56
16. A friend or salesperson gave me advice that helped me decide what I should buy.	2.23	1.56
17. I was using another product for the same purpose and became dissatisfied with it.	2.18	1.62
18. Someone (e.g., a friend or family member) agreed to help me make the purchase.	2.17	1.79
19. I found a reliable store.	2.13	1.47
20. I obtained the consent of another person who had to approve the purchase.	2.11	1.71
21. My budget or available funds suddenly increased.	2.09	1.59
22. A salesperson was particularly nice, helpful, or informative.	2.01	1.41
23. Someone who owned this product recommended a brand or model to me.	2.00	1.64
24. I had planned all along to defer the purchase until this time.	1.97	1.44
25. Someone else I know bought this brand or model, and I liked it.	1.82	1.48
26. I no longer had access to the product which had been serving this function.	1.56 ^a	1.33
27. A special event where I would be able to specify my own present, such as a birthday or Christmas, was imminent.	1.51	1.30
28. The product I was using for this purpose broke.	1.41 ^a	1.18
29. The product was becoming difficult to find, and I wanted to buy the product before it became unavailable.	1.40 ^a	1.12
30. I moved, and was waiting until after this move to buy the product.	1.37 ^a	1.11
31. A new product was introduced that I wanted to buy.	1.26 ^a	.91

^aDropped from analysis because 10 or fewer respondents rated this item 4, 5, or 6 in importance.

The total reported decision delay time averaged 36.5 weeks (SD = 36 weeks), or about nine months.⁶ As the minimum delay for screening was only one month, this suggests that these subjects often delayed major decisions for considerable amounts of time, most of which was probably not spent on active decision time. Subjects reported spending an average of 53 percent of delay time (\bar{X} = 19.2 weeks, SD = 26.6) between the onset of need recognition and the start of information search, 29 percent (\bar{X} = 10.6 weeks, SD = 14.2) searching for information and evaluating alternatives, and 18 percent (\bar{X} = 6.7 weeks, SD = 12.2) after choosing an acceptable brand or model but before purchasing. Delay times were not significantly related to the price paid or whether the product was a first-time or repeat purchase.

Time spent in the first stage was only moderately related to time spent in the second stage (r = .30), and not at all related to time in the third stage (r = .001). Times in the latter two stages were not related (r = .022). These low correlations indicate that the subjects' delay time in one stage tells relatively little about their delay

in other stages. This confirms the value of studying delay in separate stages of the consumer decision-making process rather than examining only total delay time, at least for this student sample.

Structure of the Delay Items

Table 1 reports the mean importance rating for each of the delay and delay closure items in study 2, in descending order of mean importance. Because a distinct reason was included in study 2 even if mentioned by only one subject in study 1, it is not surprising that many items have very low average importance ratings. Given that we seek to identify reasons that are important across a broad range of students and purchases, we dropped from further analysis 17 delay items and five delay closure items that were given a rating of 4 (important), 5 (very important), or 6 (extremely important) by 10 or fewer subjects.

The underlying structure of the importance ratings for the 33 remaining delay items was examined through factor analysis. Ten principal components, explaining 69.4 percent of total variance, had eigenvalues greater than one and were retained for varimax rotation. To interpret the rotated factors we focused on items that loaded at least $\pm.5$ on the factor of interest and did not load higher than $\pm.4$ on any other factor. We interpret these factors and compare them with the delay reasons

⁶This is the mean of the sum of the delay times for each of the three stages. This figure is very close to the mean overall delay time that consumers reported earlier in the survey (33.4 weeks). The high correlation between the two time measures (r = .78) suggests that respondents were able to report times in each stage that summed close to their reports of overall delay time.

proposed in the typology, as follows (factor loadings $\geq \pm .5$ are reported in square brackets):

Too busy to devote time to decision (items 1 [.69] and 3 [.80]). Subjects delay because they have no time to devote to this decision and other obligations have higher time priority. This factor corresponds to delay due to time pressure (Proposition 1).

Shopping unpleasant (items 24 [.85] and 17 [.51]). Subjects delay because they feel that shopping for the product, and shopping in general, are unpleasant tasks. This corresponds to delay due to dislike for and avoidance of shopping (Proposition 2).

Performance and financial risk (items 29 [.56], 12 [.63], 7 [.59], and 23 [.59]). Subjects delay because they perceive that the product may not work properly and that they cannot afford to replace an unsatisfactory product, and because they have made poor purchase decisions in the past. This describes performance and financial components of perceived risk, a part of Proposition 3.

Social and psychological risk (items 27 [.67], 25 [.70], and 2 [.56]). Subjects delay because they are worried that the purchase will make other people think less well of them, and that they will think less well of themselves, because they did not choose the right product or paid an unfavorable price for it. This describes the social and psychological components of perceived risk, also part of Proposition 3.

Need someone else's advice or consent (items 18 [.82], 16 [.84], and 19 [.74]). Subjects delay because they need to obtain someone else's advice or approval before making the purchase. This corresponds to delay to obtain someone else's advice (Proposition 4).

Gather information (items 9 [.76], 6 [.88], 8 [.86], and 14 [.65]). Subjects delay to obtain more information about the different models and brands available and identify the differences between them. This corresponds to delay to gather information (Proposition 6).

Change in market (items 26 [.69] and 11 [.82]). Subjects delay because they believe that soon the product's price may decrease or that a better product will be introduced. This combines Propositions 7 and 8, possibly because subjects expect that whenever an improved product is introduced the price of the older product will fall, or because they have observed simultaneous price reductions and quality improvements in the past (e.g., VCRs and computers).

Three delay reasons not anticipated in the typology also emerged:

Uncertain need (items 20 [.69], 5 [.52], 13 [.65], and 22 [.52]). Subjects delay because they are uncertain whether they really need the product.

Cannot afford to buy (item 10 [.85]). Subjects delay because they cannot afford to make the purchase at that time.

Substitute available at home (item 15 [.83]). Subjects delay because they already have access to a product like this at home.

The emergence of these three additional delay reasons shows that the motivations for delay are more varied than anticipated and demonstrates the value of using subjects' self-descriptions of delay reasons to obtain an unrestricted and comprehensive set of reasons. Procedural uncertainty (Proposition 5) did not emerge as an important reason for delay, because items 41 and 42 were dropped because of low average importance ratings. Apparently graduate business students feel they know how and where to obtain information, and how to assess the importance of product attributes, for the types of products they tend to buy. This comparison with the delay reasons derived from study 2 supports seven of the eight delay reasons proposed in the typology. We add the three unanticipated reasons to the typology and subject them to further tests of their impact on consumer delay.

Table 2 reports the mean importance of the items used to interpret each delay reason. Although these importance values can be expected to vary for different groups of subjects, and therefore may not generalize to the population as a whole, it is interesting to note that the delay reasons vary considerably in mean importance.

Structure of Delay Closure Reasons

The underlying structure of the 26 delay closure reasons that were judged important by at least 10 subjects was also examined through factor analysis. Nine principal components, explaining 68.1 percent of total variance, had eigenvalues greater than one and were retained for varimax rotation. These factors were interpreted with the same guidelines applied to the delay factors, yielding the following delay closure reasons:

Found time to make decision (items 5 [.68], 10 [.84], and 17 [-.54]). Subjects find more time to devote to the decision, or give it higher current priority because they expect to be even busier in the future. This can occur even if subjects are reasonably satisfied with their present product (see item 17).

Tired of shopping (items 9 [.72] and 12 [.71]). Subjects become tired of shopping or feel that they are procrastinating excessively over the decision.

Obtained advice or consent (items 20 [.79] and 18 [.83]). Another person provides the advice or consent for which the subject was waiting.

TABLE 2
IMPORTANCE OF AND CORRELATIONS BETWEEN DELAY AND DELAY CLOSURE REASONS

Delay closure reason	Delay reason									
	Time pressure (3.91)	Need information (3.43)	Can't afford (3.19)	Uncertain need (2.75)	Social and psychological risk (2.70)	Substitute at home (2.70)	Product and financial risk (2.65)	Market change (2.52)	Need others' advice (2.41)	Shopping unpleasant (2.34)
Decided on alternative (3.84)	...	.32**	...	...	...	...	...	...	...	...
Found time (3.62)	.42**	...	...	...	...	...	...	...	...	...
Higher need (3.51)	...	...	.16 ⁺	.39**	...	-.17 ⁺	.18 ⁺
Lower price (3.10)	...	...	...	...	.25**	...	...	.35**	...	-.19*
Tired of shopping (2.70)	.28**	...	...	...	.21*	...	...	-.19*	...	.39**
Good store (2.41)	...	.22*	...	...	.35**	...	-.18*	...	...	...
Justify expenditure (2.32)	...	...	.39**	.154 ⁺	.21*	.20*	...	...	...	-.23**
Obtained advice (2.14)	...	...	...	...	...	...	...	...	.66**	...
Word of mouth (2.01)	-.19*	.38**	...	...	...	...	-.20*	...	...	...

NOTE.—For delay and delay closure reason, mean importance, which is the mean rating of all items loading at $\geq \pm .5$ on that factor, is reported in parentheses. All tests are two-tailed vs. $H_0: \rho = 0$.

⁺ $p < .10$.

* $p < .05$.

** $p < .01$.

Decided which alternative to choose (items 8 [.62] and 13 [-.53]). Subjects decide which brand or model they want. This may close delay even if the subject is not at the best store for buying the product (see item 13).

Price lowered (items 2 [.77], 14 [.80], 3 [.52], and 7 [.50]). The product's price falls temporarily or permanently. The lower price can increase the subjects' evaluation of a product and motivate them to feel that they "want" or "like" that product (items 3 and 7). Closing delay because a new product was introduced was mentioned in study 1 (item 31) but was dropped because of low average importance.

Need increase (items 1 [.63] and 4 [.81]). Subjects anticipate a higher need for the product in the near future, owing to either a generally higher usage rate or an upcoming situation that requires the product.

Justify expenditure (items 21 [.71], 15 [.57], 6 [.52], 11 [.77], and 27 [.55]). Subjects justify purchasing the product because their financial situation has improved, they feel like treating themselves, they believe the product is unlikely to be improved

in the near future, or because they will receive as a gift the funds to buy it.

Word of mouth (items 23 [.91], 16 [.58], and 25 [.79]). Subjects form a favorable opinion of a brand after receiving information from friends or salespeople.

Good store (items 7 [.57], 19 [.69], and 22 [.74]). Subjects find a store that is reliable, has an informative and helpful salesperson, or stocks a product that they like.

As with the delay reasons, the delay closure reasons vary considerably in mean importance, as reported in Table 2. Here again, results from a student sample are not necessarily representative of the population as a whole.

Links between Delay and Delay Closure Reasons

If consumers delay for a particular reason, then they should also stop delaying when that reason is addressed. Consequently, particular delay closure reasons logically should address or supersede particular delay reasons,

and reasons that are thus linked should be correlated positively in importance.

The meanings of seven of the 10 delay reasons appear to be linked closely to particular delay closure reasons for this sample. The linked pairs of delay and delay closure reasons are as follows: (1) time pressure and finding time for the decision, (2) need to acquire more information and deciding which brand or model to select, (3) need for more information and receiving word-of-mouth advice, (4) need for another person's advice or consent and obtaining advice or consent, (5) waiting for prices to drop and prices dropping, (6) belief that shopping is unpleasant and becoming tired of shopping, (7) perception that the purchase is not affordable and justifying the purchase, and (8) uncertainty of product need and expecting increased product need.

While the other links involve delay closure reasons that address or supersede delay reasons, link 6 occurs because a negative attitude toward shopping *persists* throughout the decision-making process. Initially this creates delay, but eventually the subject realizes that the benefits of closing the decision making should take precedence over his or her negative attitude. Links 7 and 8 involve unanticipated delay reasons and provide additional evidence for their impact. However, delay because a substitute is available at home has no obvious link with a closure reason.

Perceived risk, which motivates two delay reasons, does not have an obvious link to any particular delay closure reason. One explanation for this is that the delay closure reasons that remove or supersede perceived risk are more diverse than the delay closure reasons related to the other delay reasons, so the linkages are broader. Many delay closure reasons, such as receiving word-of-mouth advice, finding a lower price, finding a good store or salesperson, and receiving someone else's advice, are likely to lower perceived risk.

We next examine whether significant and positive correlations exist between the importance ratings of the logically linked delay and delay closure reasons, as posited earlier. Table 2 reports statistically significant correlations between the factor scores that express each subject's importance value for the delay and closure reasons. Because the factor scores are orthogonal within each set, these are also the regression coefficients estimated when factor scores for the 10 delay reasons are used to predict factor scores for each delay closure reason.

These results provide statistical support for the eight links we have identified. Each delay closure reason has a higher correlation with the logically linked delay reason than with any other delay reason. The relevant correlations range from $r = .32$ to $r = .66$, and they are all significantly different from zero at $p < .01$ (one-tailed test; given that we hypothesize a positive correlation).

These correlations also indicate that subjects who delay for reasons related to perceived risk tend to close delay for several reasons. Three delay closure reasons

are significantly correlated with delay due to product and financial risk at $p < .10$ (two-tailed test). Four delay closure reasons are significantly (and more strongly) correlated with delay due to social and psychological risk.

Note that closing delay due to finding a good store is positively related to delay due to social and psychological risk but is negatively related to delay due to performance and financial risk. Apparently subjects trust store personnel and displays to suggest whether a product is right for them and will meet with their friends' approval, but not to suggest whether a product will perform properly or is a good value. By contrast, anticipating a higher need and receiving word-of-mouth advice are more effective for closing delay caused by performance and financial risk.

Unanticipated links also appear. Overall, a total of 25 of the 90 correlations between delay and delay closure reasons were significantly different from zero at $p < .10$ (two-tailed test), a much higher number than expected by chance. For example, subjects who delay due to time pressure not only place more importance on closing delay because they find time, but also because they become tired of shopping. They also tend to place less importance on closing delay because they received word-of-mouth advice (perhaps they are too busy to seek or use this advice). While these unanticipated correlations are not as strong as the proposed links, they do suggest that the connections between why these subjects delay and why they close delay extend beyond the most obvious links, and even include negative relationships.

Relation between Delay Reasons and Elapsed Delay Time

Table 3 reports correlations between subjects' factor scores for each delay reason and the natural logarithms of their reported delay times. This logarithmic transform is used because we feel that the most intuitively appropriate relationship is between a given unit change in the factor score for a delay reason and the ratio change in the delay time, rather than the unit change. Furthermore, the time measures are highly skewed while the delay factor scores are close to symmetric, and in these cases a logarithmic transform of the former is often appropriate. Finally, the logarithms of the delay times are more strongly related to the delay reasons. Because the delay reasons are orthogonal, these correlations are also the regression coefficients estimated when factor scores for the 10 delay reasons are used to predict the log of each delay time.

Eight of the 10 delay reasons are significantly correlated with elapsed time in one of the decision stages or with total elapsed time. Only two reasons, availability of a substitute and finding shopping unpleasant, are not significantly correlated with elapsed time.

TABLE 3
CORRELATIONS BETWEEN IMPORTANCE OF DELAY REASONS AND LOGARITHMS OF ELAPSED DELAY TIMES

Importance of delay reason (measured by factor score)	Delay time in decision stage			Total time
	Stage I (need identification)	Stage II (obtain information, evaluate alternatives)	Stage III (purchase)	
Time pressure	-.18 ⁺	-.20 ⁺
Need information48**	...	...
Can't afford17 ⁺25*
Uncertain need21*
Social and psychological risk	...	-.15 ⁺	...	-.17 ⁺
Have substitute at home
Performance and financial risk21*	...
Await market change24*	...
Need other's advice16 ⁺
Shopping unpleasant
Total % of variance in log of time explained by all 10 delay reasons	.010	.33	.188	.201

NOTE.—All tests are two-tailed vs. $H_0: \rho = 0$.

⁺ $p < .10$.

* $p < .05$.

** $p < .01$.

Four delay reasons are significantly correlated with elapsed time in a decision stage but not with total delay time. For example, delay to gather information is highly correlated with elapsed time in the information gathering and evaluation stage ($r = .48$), but not with total delay time. Delay to wait for the price to drop or quality to improve is correlated with time in Stage III, where the consumer has selected an alternative but has not yet purchased ($r = .24$), but not with total delay time. Furthermore, delay reasons correlated with Stage II time are not correlated with Stage III time, and vice versa. These results suggest that many delay reasons are related to delay time in a particular stage of decision making rather than across the entire process.

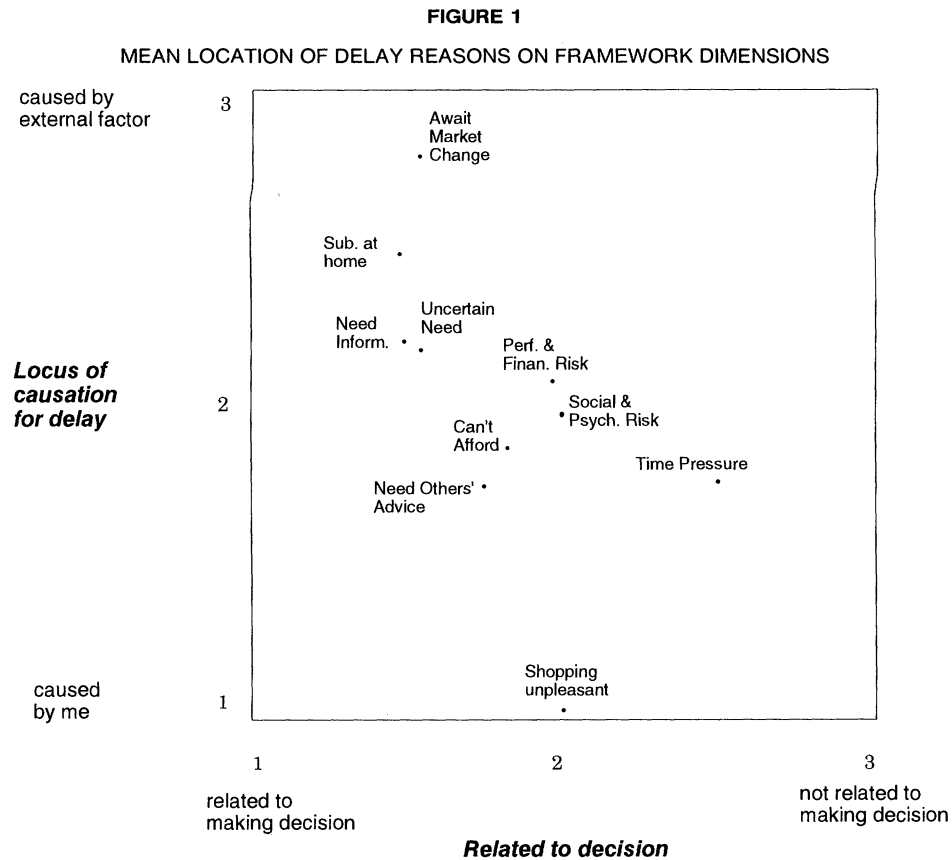
None of the delay reasons are significantly correlated with time in Stage I (i.e., between need recognition and the beginning of information search). Delay due to need uncertainty was related to total delay time but was not significantly correlated with time in the need-recognition stage, as might be expected. However, it had the second highest correlation of any delay reason with Stage I time. This suggests that these subjects continued to question their need for a product throughout the consumer decision, rather than always resolving their need before beginning their information search. Thus strategies to reduce delay caused by need uncertainty may have to address consumers in all stages of decision making.

Some of the delay reasons are positively correlated with elapsed time, and thus related to longer delays, while other reasons are negatively correlated. For example, subjects' delay times tended to increase with the importance of delaying to gather information, to wait for prices to drop or quality to improve, or owing to

need uncertainty, but tended to decrease with the importance of delay due to time pressure. Higher delay times in the information search and evaluation stage were also related to higher importance values for delay from performance and perceived financial risk, but lower importance values for delay from perceived social and psychological risk. Together with the result that these last two delay reasons are correlated with different closure reasons, this suggests that subjects use delay differently to reduce different types of risk.

STUDY 3: PURPOSE AND LOCUS OF CAUSATION IN CONSUMER DELAY

In order to understand delay better, we describe a framework for representing and classifying the delay reasons. An examination of the 10 delay reasons suggests that they vary on two dimensions. The first dimension is whether consumers perceive that the delay involves activities related to the consumer decision, or rather, postpone the decision through unrelated activities. The second dimension is whether consumers perceive that they cause the delay themselves, or that the delay is instead caused by some external factor. This is the dimension of locus of causation, which has been identified in attribution theory and has been found to influence consumer behavior (Folkes 1984). While other dimensions might also be chosen, these two in particular should be useful because the impact of attributions on consumer behavior has received considerable attention, and because the emphasis on delay due to the decision versus unrelated activities helps indicate how people give relative priority to consumer activities within



the larger context of the many demands of life in general.

Method

The purpose of study 3 was to examine whether and how students perceive that their delay reasons vary on these dimensions. This study used a new sample of 51 graduate business students who had made purchases meeting the same criteria used in study 2. After describing the purchase, its cost, and their total delay time, the students enumerated and described in their own words each reason why they delayed this purchase decision. They then rated each reason on two five-point semantic differential scales. The scale to measure purpose of delay was anchored at "related to making this purchase decision" and "not related to making this purchase decision," and that to measure locus of causation was anchored at "caused by me" and "caused by some person or thing other than me." The extremely low correlation between the ratings for purpose of delay and locus of causation ($r = -.0009$) suggests that the subjects perceived these as independent dimensions. The subjects described 206 delay reasons. Two new judges, otherwise unaware of the study's purpose, were given the descriptions, relevant items, and large item loadings for the

delay reasons listed earlier, and then independently classified each reason as either belonging to a particular one of the 10 delay reasons found in study 2 or as not classifiable. The judges placed 66 percent of the 206 reasons in the same category. This yields an estimated interjudge reliability of .79, through the measure proposed by Perreault and Leigh (1989), which is a fairly good level for categories in the development stage. The judges then resolved reasons that they classified differently to create a joint classification. They jointly determined that 84 percent of the 206 reasons could be classified with one of the reasons in the typology, indicating that the 10 reasons were quite useful for categorizing the delay descriptions.

Results

To estimate how subjects perceived the delay reasons on the two dimensions, we computed the average "related" and "causation" ratings for all of the subjects' reasons that the judges jointly placed in the same category. The map of these means in Figure 1 presents the estimated location of these delay reasons in the conceptual framework of delay.

Subjects felt that the delay's purpose was most strongly related to the consumer decision when they

delayed because a substitute was available, to acquire information, to wait for prices to fall or products to improve, or because of uncertain need. By contrast, they perceived that delay was least related to the decision when they delayed because of time pressure, or because they found shopping unpleasant. The subjects felt they were primarily the locus of causation when they delayed because of finding shopping unpleasant, not being able to afford the purchase, time pressure, or waiting to seek another person's advice or consent. (The last reason suggests that subjects felt that they could influence when the other person would help them, by pressing or failing to press for prompt advice, or else they could decide to make the decision without waiting for advice.) The delay reasons that were most strongly perceived as caused by external factors were waiting for prices to drop or products to improve, having a substitute available at home, gathering information, and uncertainty about product need.

These results suggest that the subjects perceived that their delay reasons vary on these two dimensions. Future research may wish to examine how a delay reason's location on these two dimensions affects such factors as how long the delay lasts, in what stage it occurs, or the marketing strategies that most effectively motivate delay closure when consumers delay for that reason.

Comparison of Incidence and Rating Scale Measures of the Delay Reasons' Importance

While study 2 estimated the importance of delay and delay closure reasons using the average importance ratings for items that load highly on a factor, an alternative importance measure is how often subjects mention each type of delay reason in their descriptions. Although the latter measure does not detect gradations in importance for a subject, it also is not sensitive to a possible response effect where subjects may rate a delay reason as important to them even if it was not, simply because it appeared in the survey. However, the subjects appeared to be quite willing to rate items as unimportant, which suggests that this response effect did not appear—52.5 percent of all the ratings for the delay closure reasons in study 2 were "1" (no influence) and 12.9 percent were "2" (a minor influence), while only 6.2 percent were "6" (an extremely important influence).

The judges' classifications from study 3 do present an opportunity to compare these two self-reported measures of the reasons' importance. The rank-order correlation between the average importance of the delay reasons in study 2 and the frequency with which they were mentioned in study 3 was fairly high, $r = .53$, which suggests that, even across different samples, the importance results are fairly robust to the method used to measure importance.

To make the same comparison for the delay closure reasons, we repeated study 3 with a new sample of 37 graduate students (study 3b), but here asked them to

describe all of the reasons why they *closed* delay for a consumer decision. The two judges, after reading descriptions of the nine delay closure reasons, initially placed 66 percent of the 120 reasons provided in the same category (estimated reliability: $I_r = .79$, the same as for the delay reasons). They then jointly agreed that 86 percent of these reasons could be classified with one of the nine closure reasons.⁷ The rank-order correlation between the mean rated importance of the closure reasons and the frequency with which they were mentioned in study 3b was fairly high, $r = .48$, which is very close to results for the delay reasons in study 3 and again indicates robustness to the method used to measure importance. We note that both the importance ratings and frequency of mention are based on self-reports rather than objective observation, and they may be sensitive to the limitations of how people interpret linguistically based cognitive measures that use words to describe importance levels.

DISCUSSION

The results of studies 1 and 2 give considerable support to the proposed typology of delay reasons. First, seven of the eight proposed reasons emerged from reasons described by students who delayed, along with three unanticipated reasons. Second, nine of these reasons are logically linked to delay closure reasons also derived from students' descriptions, and the importances of the linked reasons are significantly correlated. Delay reasons related to perceived risk are linked to a broader set of delay closure reasons. Third, eight of the 10 delay reasons are related to the amount of time the subjects reported delaying, either to total delay or to a particular stage of the decision-making process. This supports the value of studying delay in separate decision stages rather than just total delay, especially given that the subjects tended to delay longer in the earlier stages. Also, subjects perceived that the delay reasons differ on the dimensions of purpose and locus of causation.

None of the delay reasons were related to the elapsed time between need recognition and beginning information search, even though the delay reasons were derived from research on delay in other contexts and emerged from delay reasons provided by subjects who had delayed. This suggests that the causes of delay in this first stage may be very different from those in later stages and that consumers may not be as aware of these

⁷Note that the study 3 respondents provided these delay closure reasons *without* first describing or rating delay reasons, as they did in studies 1 and 2. Yet the delay closure reasons developed from the latter study proved quite useful for classifying the reasons from study 3. This suggests that the links between the delay and delay closure reasons found in study 2 did not occur only because respondents exhibited a possible consistency bias, which might have motivated them to rate delay closure reasons as important only because they were consistent with the delay reasons which they previously rated as important.

factors for early stages. One possible explanation is that until information search begins, the consumer has not actually engaged in any behavior that creates a commitment to purchase. Once information search begins, however, perceived commitment eventually to make the purchase may increase, so that a different set of factors govern delay after information search begins. Because delay in this first stage accounts, on average, for over half of total delay time, future research may want to identify factors that particularly influence delay in this stage. Another possible explanation for this result is that recall is higher for delay reasons that occur in later stages of decision making because these reasons are more recent and thus more salient. Special prompting may be necessary to generate recall of the earlier reasons. Another approach to investigate this first stage is to ask consumers to describe a product for which they recognize a need but have not yet begun information search, since such consumers are still in the first stage.

The results of study 3 support that subjects perceived delay reasons differently on the two dimensions of whether the delay reason is related to the consumer decision, and whether the delay is caused by the consumer or forces external to the consumer. While we do not propose that these are the only possible dimensions that can be used in a framework of delay reasons, these two dimensions suggest that consumers may classify together delay reasons that share underlying causes or other characteristics.

Limitations

While the typology of delay studied here provides researchers with a basis for examining this important aspect of consumer decision making, caution must be used in generalizing our results beyond graduate students. These students were primarily young, highly educated individuals from market economies and industrial societies. Different delay reasons may emerge for other age or education groups, or in other societies and cultures, and the study of these differences represents an interesting area for future research. Delay reasons may also change with economic variables, such as employment, income expectations, or inflation.

Some delay reasons omitted from our typology, because most subjects rated them as unimportant in study 2, may be important for particular products or consumers. For example, procedural uncertainty did not emerge as an important delay reason, but home owners who need to buy completely unfamiliar products, such as equipment to reduce radon basement gas, might delay because they are unsure where to get information and which attributes are important.

Our study used retrospective measures of the elapsed time subjects spent in each decision stage. An alternative approach is to ask consumers to keep a concurrent record while engaged in the decision-making process, not-

ing the reasons they delay and elapsed time spent in each stage. This method would have fewer errors of recall and telescoping, and it reduces the possibility that subjects might report delay closure reasons that are linked to delay reasons in order to appear consistent. However, this method might also create a reactive effect on consumers' decision making and their delay behavior.

Areas for Future Research on Consumer Delay

Our study of delay is confined to substantial delay for fairly expensive, high-involvement products, where the students did eventually make a purchase. An area for future research is the reasons that motivate delay that is never closed (see Dhar [1995] for related work). Furthermore, a different set of reasons may create delay for low-involvement goods or for services. Also, the identity and importance of delay reasons may be different for industrial purchase decisions. For example, delaying to wait for product improvements or lower prices may be more important for businesses than for students. Software makers have been accused of announcing new products long before they are perfected, and their goal may be to motivate business customers to delay buying until the new software reaches the market, which reduces the current sales of other software firms.

The unanticipated links found between delay and delay closure reasons suggest that the process of closure may extend beyond the more obvious links with particular delay reasons. An area of future research of interest to both consumer researchers and marketing managers is to undertake a more complete study of the relationships between delay and delay closure reasons and identify strategies to create delay closure reasons that effectively address particular delay reasons.

Another area for future research is to segment consumers according to the reasons they delay. Such research could determine whether the importance of particular reasons tends to vary with demographic or psychographic characteristics or with the benefits the consumer seeks. The results of such research could help marketers direct different delay reduction strategies at different target segments.

Consumer researchers may also want to examine how different reasons for delay affect the outcomes of consumer decisions. For example, consumers who delay for particular reasons may have higher satisfaction than consumers who delay for other reasons. This may affect not only product satisfaction, but also satisfaction with the decision itself (Fitzsimons 1995). Delay reasons and times may also be related to outcomes such as repeat purchasing or the extent of product usage. The impact of a delay reason may also depend on where it is classified in the two-dimensional framework we have proposed, or on some other type of framework. For example, satisfaction may differ if delay is related to the

decision rather than motivated by other activities. The area of decision delay thus offers many opportunities for future research.

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