Original Article

Consumer trying: Scale development and validation

Received (in revised form): 14th March 2011

Anil Mathur

is Brodlieb Distinguished Professor of Business at the Frank G. Zarb School of Business, Hofstra University, New York. Dr Mathur is co-author of *Baby Boomers and Their Parents: Surprising Findings About Their Lifestyles and Well-Being* (Paramount Publishing) and *The Maturing Marketplace: Buying Habits of Baby Boomers and Their Parents* (Quorum Books). He has also authored or co-authored over 75 articles and papers that have been published in scholarly journals and conference proceedings.

This research was supported in part by a Summer Research Grant from the Frank G. Zarb School of Business, Hofstra University.

ABSTRACT Not all attempts of consumers to acquire and consume goods are successful. Sometimes some consumers are able to achieve their consumption goals in their first attempt; some other times individuals are able to achieve their goals after repeated attempts, and yet other times their goals are never achieved and might be abandoned. This research focuses on exploring the nature of consumer trying to achieve consumption goals and develop and validate a scale for measuring consumer trying.

Journal of Targeting, Measurement and Analysis for Marketing (2011) **19**, 45–54. doi:10.1057/jt.2011.6;
published online 18 April 2011

Keywords: consumer trying; scale development; attitudes

INTRODUCTION

Although sometimes consumers purchase goods and services on impulse, a large number of consumer purchase decisions are made in advance and are executed in the marketplace. However, not all attempts of consumers to purchase or consume goods and services are successful. Some times consumers are successful in achieving their specific consumption goals easily in their first attempt, some other times they may have to try a little harder. However, some other times the goals are never achieved and might be abandoned. For example, someone might be able to buy a car in his first attempt when he visits the dealership; some other consumer might make more than one visit to the dealer to buy the car and work harder to overcome obstacles

(for example, financing difficulties). This research focuses on developing a conceptual framework to understand the nature of consumer trying to achieve consumption goals and to develop and validate a scale for measuring consumer trying.

The notion of consumer trying has been researched for more than a decade. Within the framework of the theory of reasoned action, it has been recognized that intentions are not good predictors of behavior, particularly those behaviors that are not within full control of the individual.^{1,2} In order to overcome this limitation, several researchers have attempted to incorporate additional variables in the attitude-behavior models to improve the predictability of behaviors not under full control of the individuals.^{3–7}

Bagozzi⁸ presented a theoretical justification for and conceptualization of trying as a mediator between intentions and goal attainment. To test this concept empirically, Bagozzi and Edwards⁹ and Mathur⁷ introduced a key variable –

Correspondence: Anil Mathur
Department of Marketing and International Business, Frank G. Zarb School
of Business, 134 Hofstra University, Hempstead, New York 11549
E-mail: anil.mathur@hofstra.edu

trying – as an intervening variable mediating the relationship between intentions and behavior/goal attainment. They also found empirical evidence supporting this mediating role of trying. However, these researchers did not utilize any reliable and valid measure of consumer trying. Other researchers testing models incorporating trying have either used a single dimension of trying (mental planning) or have used a limited number of items.^{10,11} The objective of this research is to explore the concept of trying and to develop a measure for the same. Finally, this research also attempts to establish reliability and validity of the measure of consumer trying.

TRYING TO CONSUME (CONSUMER TRYING)

Theoretical origins

The concept of consumer trying is rooted within the theoretical developments focusing on attitude-behavior relationships. Developed more than 30 years ago, the theory of reasoned action is a widely used framework to help predict volitional behaviors based on attitudes, subjective norms and intentions.¹² However, empirical research has found that the model does not perform well when applied to behavioral goals.⁶ Consequently, many attempts have been made to expand or otherwise modify the model to increase its explanatory power.^{1,3–7}

Researchers have long recognized that intentions reflect a state of mind.¹³ However, how these intentions lead to behavior and goal attainment was not very clear. Bagozzi⁸ presented a conceptual model of trying that incorporates five distinct components: plans or mental effort, script, instrumental acts, physical effort and commitment. According to this model, plans or mental effort represent ‘operational intentions one forms with respect to the means chosen in pursuit of a goal’ (p. 226); scripts represent a mechanism of monitoring, guidance and control activities one might need in pursuit of a goal; instrumental acts incorporate a series of purposive activities directed toward goal attainment; physical effort is the most visible part of trying and could also be referred to as ‘manifest trying’; finally,

commitment ‘refers to the binding of the individual to (a) the decision to try to achieve the goal or perform behavior and (b) the decision to use a particular means’ (p. 228).

Previous definitions and measurements of consumer trying

Bagozzi and Warshaw⁴ equated trying to behavior and treated it as the final outcome behavior that could be predicted by explanatory variables included in their theory of trying. However, their measure of trying was a single item asking the respondents to indicate if they tried to engage in the behavior on a yes/no scale. Bagozzi and Warshaw⁴ also acknowledge that the measure of trying needs improvement. Although Bay and Daniel¹⁴ attempted to expand the scope of the theory of trying by introducing goals at different levels in the hierarchy of goals, they also did not present any improvement in the operationalization or measurement of trying.

A major improvement in the conceptualization of trying was done by Bagozzi⁸ who modified the definition of trying to include ‘plans and efforts aimed at the initiation, monitoring, and guidance of goal pursuit’ (p. 229) and defined it to include initiation of ‘intermediate goal-directed behaviors’, monitoring of such behaviors and guidance of such behaviors.

Bagozzi and Edwards⁹ define trying as ‘mental and physical activities leading up to and regulating the instrumental acts directly producing goal attainment’ (p. 598). Three processes that form parts of trying are: ‘decisions with respect to means, planning and control of goal-directed behaviors, and maintenance of commitment’. Although this conceptualization improved the understanding of consumer trying, the measurement of trying continued to be a weak link. For example, Bagozzi and Edwards⁹ also measured mental trying using two items and physical trying using one item.

Mathur⁷ defined trying as ‘doing all necessary pre-behaviors and otherwise satisfying all necessary conditions that are within the voluntary control for the performance of the subject behavior’ (p. 245). This conceptualization equates trying with physical activities carried out in pursuit of

the goal. Although support for the role of trying as a mediator between intentions and behaviors was found, this research also utilized a single-item measure of trying.

Another aspect of consumer trying that needs clarification is the nature of trying – whether it involves physical activities or mental activities, or a combination of the two. As noted earlier, although Mathur⁷ considers trying purely in terms of physical activities, Bagozzi and his associates^{8,9} consider trying as incorporating both physical activities and mental planning. Considering the differences in the conceptualization of trying, whether it is purely a physical activity or it is a multiple dimensional activity comprising of both mental and physical activities, the present research attempts to resolve the conceptual issue and develop a measure of trying. The present research also attempts to establish reliability and validity of the measure of trying. An exploratory study designed to gain insight into consumer trying from the consumers' perspective is described in the following section.

METHODOLOGY

Exploratory study

In the first stage, an exploratory study was conducted to gather evidence about the structure of consumer trying that could be used for developing an operational definition and measurement of trying.

One hundred eight students (divided into two groups) enrolled in the introductory marketing classes of a suburban university in the northeastern part of the United States were given several open-ended questions and asked to respond to the questions in as much detail as possible. The first group of 64 students was asked to focus on some personal goal by thinking about a time they wanted to do something, get something or achieve something. Then they were asked to describe their goal and to indicate if they were able to achieve that goal in detail. If any participant was not able to achieve his/her goal he/she was asked to describe what happened. In any case, all participants were asked two specific questions about trying: 'Irrespective of

the final outcome, please describe how much you actually tried to achieve the above (provide details)' and 'Please list/explain specific things you did as a part of trying to do, get, or achieve the above listed target'.

The second group of 44 students was asked to focus on some goal that they were not able to achieve. The main purpose of asking the respondents to focus on a goal that they were unable to attain was to get as much detailed information as possible about the things they did in order to attain the goal. This group was also asked to describe this specific goal and to describe what happened. This group was also asked to answer the same two questions about their trying to attain the stated goal. Finally, the participants in the second group were asked to indicate if they were still trying to achieve this goal. To assure them of complete anonymity, no other information was collected (not even demographic information). A review of the goals indicated by the participants reveals that of the 108 goals identified by them, the most popular (listed by 40.74 per cent respondents) goal was related to academic endeavors (college admission/education/classes). This is not surprising because the respondents were students. The second most important goal (listed by 20.37 per cent respondents) was related to buying or getting something. The most frequently mentioned goal in this category was getting/buying a car. Overall, a vast majority of individuals had identified some form of consumption-related goal.

Responses to the question asking them to describe specific things they did to achieve their goals were primarily used to examine the concept of trying. Responses to the question asking them to describe the degree of their trying were primarily used to get the various dimensions of trying. Responses to all other questions were used to support information gathered from these two questions. Of particular interest was to see what consumers thought and did as a part of trying to achieve their goals.

Of primary importance for this phase of research was to identify actual activities that are carried out as a part of trying and the dimensions in which individuals characterize their trying

activities. On the basis of a review of these, it became clear that both physical activities (for example, going some place) and mental activities (for example, thinking) were integral parts of trying to consume.

The degree (or qualification) of the level of trying was represented by several terms (for example, hard, time, much). Trying was quantified by the length of time one spends trying to attain some goal, how hard one tries and how much effort one applies to the endeavor (or suffers costs/pain associated with it). Interestingly, the data also revealed that trying could be considered to be a repetitive activity that could be characterized by the number of times one attempts to achieve the goal. Finally, all characteristics of trying could be further enhanced by adding 'very' to the base concept. The data also suggested that trying may not be limited to physical activities as proposed by Mathur⁷ but may involve both physical and mental activities. Bagozzi and Edwards⁹ posit these as physical and mental trying. Moreover, physical activities (action) and mental activities (plan) were very diverse and specific to the goal of the individual.

Item generation

Findings of the exploratory study were used as a basis for developing items for the measurement scale for trying. An initial list of 16 items was developed to represent various aspects of consumer trying. Six items were formatted for a 5-point Likert scale (5 = strongly agree, 1 = strongly disagree), and eight were formatted for a different 5-point scale (5 = a lot, 1 = not at all). One item was measured on a 'many times' (5) to 'few times' (1) scale to capture the number of attempts one might make. Finally, another item was included to capture overall trying on a 5-point scale (5 = very much, 1 = not at all). Although the initial pool of items in this study was smaller than that used by some other researchers, several studies have reported using item pools similar to the one used in this study.^{15,16} The questionnaire also had a list of 26 specific tasks (derived from the exploratory study) that one might engage in while trying to achieve the goal. The respondents

were asked to indicate the extent to which the main character in the scenario engaged in specific activities to get the car (5 = a lot, 1 = not at all). This data were collected to assess if a specific activity-based measure of trying would be better or a more generalized measure would be better.

Data collection

Data were collected from a sample of students enrolled in undergraduate marketing classes at a suburban university located in the northeast region of the United States. Students were presented a questionnaire containing a scenario. The scenario focused on a young individual attempting to get a car. The actual scenario used in the questionnaire is given in the Appendix section. Alternative versions of the scenarios were created to change the degree of trying on the part of the main person in the scenario (high – that is 'did everything in her power' or low – that is 'did what most people would have done'). Also, success or failure ('ultimately she was able to get the car' – 'ultimately she was unable to get the car') was manipulated in the alternative versions of the scenario to obtain greater variability in the measured variables. As the sample for this phase of data collection was drawn from a population of students, the scenario was deemed to be appropriate. Moreover, as the first study had revealed, a vast majority of potential respondents in the student sample considered this goal to be realistic. Following the scenario, the respondents were asked to put themselves in the position of the person in the scenario and answer questions following the scenario. Respondents were assured complete anonymity and no personal information was collected (not even demographic information). A total of 179 respondents completed the survey.

Realism check

Respondents were asked to indicate on a 5-point scale the extent to which they felt the situation depicted in the scenario was realistic (5 = very realistic, 1 = very unrealistic) and the extent to which they found it easy to relate to the situation depicted in the scenario (1 = very easy, 5 = very difficult). A review of the data indicated that

the respondents found the scenario to be realistic. On a scale of 5 (very realistic) to 1 (very unrealistic), the mean value was 4.35 (SD = 0.81) suggesting that the respondents found the situation to be a realistic one. Similarly, on a scale of 5 (very difficult) and 1 (very easy), the mean value for the scenario was 2.38 (SD = 1.21) suggesting that the respondents could relate to the situation faced by the individual in the scenario.

Scale refinement

Although the exploratory study suggested a few dimensions of trying, it did not suggest any specific structure of the construct. Therefore, in the initial phase, all 16 items were subjected to exploratory factor analysis to see if the items represented a one-dimensional construct or a multi-dimensional construct. Initial factor analysis with principal component extraction and varimax rotation produced four orthogonal factors. However, some items had low loadings or double loadings. Items with low/double loadings were deleted and the remaining items factor analyzed again. The process was repeated until a clearly interpretable factor structure was obtained. Although empirical findings (low loadings and double loadings) played an important role in the decision to drop certain items from further consideration at each stage, semantic and conceptual considerations were the key determining factors in each decision. Only those items that indicated semantic overlap across dimensions of the scale or otherwise appeared to duplicate concepts contained in some other items were deleted from the list of selected items at each stage. The final result was based on 10 selected items that formed three clearly defined factors representing the effort applied by one in trying to attain consumption goal, pain/sufferings one had to endure as a part of trying to consume, and mental planning one had to do as a part of trying to consume. The item relating to the number of attempts was dropped early in this analysis. Similarly, an item representing overall level of trying was not included in the list. Alpha reliability of the overall 10-item scale was 0.86 and that of the three subscales were 0.82, 0.84 and 0.84, respectively.

The next stage of analysis focused on establishing the structure of the trying to consume scale and its reliability.

Evaluation of latent structure and scale refinement

Whether the three factors of the scale represent three orthogonal measures (uncorrelated) or represent dimensions of a higher order factor was examined through confirmatory factor analysis. LISREL 8.7 and its associate program PRELIS were used to examine a one-factor model (incorporating all 10 items) as the baseline model, and it was compared with a three-factor model. The overall fit of the models was examined using multiple indicators.¹⁷

Indicators of the overall fit of the model suggest that the single-factor model did not fit the data well ($\chi^2 = 357.93$, $DF = 35$, $P < 0.000$, standardized RMR = 0.14, CFI = 0.75, GFI = 0.70, AGFI = 0.52, NFI = 0.74, NNFI = 0.68). A two-factor model was tested next. Indicators of the overall fit of the model suggest that this was an improvement over the one-factor model ($\chi^2 = 168.58$, $DF = 34$, $P < 0.000$, standardized RMR = 0.088, CFI = 0.88, GFI = 0.81, AGFI = 0.70, NFI = 0.86, NNFI = 0.85). However, other indicators suggested that the overall fit of the model could be improved. Finally, the three-factor model was tested next. Indicators of the overall fit of the model suggest that the three-factor model is a definite improvement over the previous two models ($\chi^2 = 91.91$, $DF = 32$, $P < 0.000$, standardized RMR = 0.067, CFI = 0.95, GFI = 0.90, AGFI = 0.83, NFI = 0.93, NNFI = 0.94). However, a review of modification indices suggested that error term for one item ('How much did she try to get the car') in the first factor had high correlations with several other error terms, as indicated by their corresponding modification indices. This item also had the lowest factor loading on the corresponding factor, suggesting that the item could be removed from the scale. Moreover, a review of the wording indicates that this item might have captured the overall concept of trying rather than a specific aspect of the same, causing some confusion in the

Table 1: Parameter estimates of the three-factor measurement model

Parameter	Maximum-likelihood estimate	t-value
λ_{11}	0.68	11.94
λ_{21}	0.82	14.18
λ_{31}	0.48	8.11
λ_{42}	0.77	13.43
λ_{52}	0.73	12.17
λ_{62}	0.65	9.47
λ_{73}	0.63	9.39
λ_{83}	0.90	13.08
λ_{93}	0.82	12.42
ϕ_{21}	0.42	5.99
ϕ_{31}	0.66	11.07
ϕ_{32}	0.28	3.42

Note: All parameters are significant at $P < 0.05$.

minds of survey respondents. Therefore, this item was eliminated (leaving three indicators each for the three dimensions of consumer trying) and the model tested again. Indicators of the overall fit of the model suggest that this model fits the data well ($\chi^2 = 43.48$, $DF = 24$, $P = 0.0088$, standardized RMR = 0.055, CFI = 0.98, GFI = 0.95, AGFI = 0.90, NFI = 0.96, NNFI = 0.97). Finally, based on the modification index, one of the error term was allowed to correlate with another error term and the final model had improved fit over the previous model ($\chi^2 = 31.97$, $DF = 23$, $P = 0.10$, standardized RMR = 0.053, CFI = 0.99, GFI = 0.96, AGFI = 0.92, NFI = 0.97, NNFI = 0.99). Maximum-likelihood estimates of the parameters in the final model are given in Table 1. Reliabilities (ρ_{η}) of the three subscales were 0.83, 0.71 and 0.65.

Construct validation

As shown in Table 1, the correlation between the three dimensions of the consumer trying ranged between 0.28 and 0.66. Moreover, earlier analysis had shown that all items in the scale correlated well with each other. Therefore, the three subscales representing the three dimensions of consumer trying were summed in subsequent validation analysis. The internal reliability of the nine-item final scale was 0.85.

The first test of the construct validity was carried out by examining if the scale distinguished between groups with known differences in

their degree of trying to consume. As mentioned earlier, the degree of trying was manipulated (high and low) in the alternative versions of the scenario. It would be expected that the measurement scale for trying would show differences across these two groups. A comparison of mean scores for trying across the two defined groups shows significant differences in the expected direction across the two groups (mean difference = 2.41, t -value = 2.93, $P < 0.01$).

Discriminant validity of the consumer trying scale was evaluated by two measures that are related to consumer trying. Discriminant validity of a measure is said to be demonstrated if the measure is not highly correlated with other related constructs.¹⁸ Several researchers have suggested that intentions are closely related and immediately precede consumer trying.⁹ Based on previous research, it was expected that the measure of consumer trying would be related to those of intentions, but the correlation would not be so high that it would imply that the two measures represent the same underlying construct.

Behavioral intentions were measured by three items on a 5-point Likert scale (5 = strongly agree, 1 = strongly disagree) (mean = 13.71, $SD = 1.52$, $\alpha = 0.80$). Items used in the scale are given in Appendix B. The correlation between intentions and consumer trying was significant ($r = 0.471$, $P < 0.000$). This correlation suggests that the nine-item measure of consumer trying has discriminant validity.

Nomological validity of a construct can be established when there are distinct antecedents and consequences of the construct under investigation.^{18,19} Previous research had suggested that intentions are the immediate antecedents of consumer trying. Also, attainment of consumption goal is the eventual outcome of trying.^{7,9} In line with this, it was expected that the relationship between intentions, trying and goal attainment would demonstrate nomological validity of the scale. Attainment of consumption goal was measured by manipulation in the scenario ('she was able to get the car' versus 'she was not able to get the car').

The model of intentions, consumer trying and consumption goal attainment was tested using

structural equation modeling. For this test, three items representing the effort applied dimension of trying were added to reflect one indicator of the latent construct of trying to consume, following the procedure recommended by Bagozzi and Hetherton.²⁰ Similarly, three items each representing the suffering endured and mental planning dimensions of consumer trying were also combined to reflect indicators of trying. Thus, the latent construct of consumer trying had three indicators. Relationships between intentions, trying and goal attainment were tested using LISREL 8.7. Although χ^2 statistic indicated that the model did not fit well ($\chi^2=33.51$, $DF=12$, $P<0.000$), other indicators of the overall fit of the model suggest that the model fits the data well (standardized RMR = 0.054, GFI = 0.94, AGFI = 0.87, CFI = 0.97, NFI = 0.95, NNFI = 0.95). LISREL results also confirmed that intentions are positively related to consumer trying (maximum likelihood estimate = 0.32, t -value = 3.96), and consumer trying is positively related to goal attainment (maximum likelihood estimate = 0.64, t -value = 7.27), as expected. Parameter estimates of the final model are given in Table 2. These results demonstrate the nomological validity of the consumer trying measure.

Is trying a mental activity or a physical activity?

Respondents were asked to indicate on a 5-point scale (1 = not at all, 5 = a lot), the extent to which they engaged in 26 specific activities. Of these 16 activities were physical activities (for example, working, meeting people), and 10 were mental activities (for example, planning, monitoring). The complete list of activities included is given in Appendix C. Responses to the 10 activities in the mental scale were summed to obtain a 10–50-point scale of the extent of mental activities performed (mean = 38.54, $SD=6.20$, $\alpha=0.84$), and responses to 16 activities in the physical activities scale were summed to obtain a 16–80-point scale of the extent to which physical activities were performed (mean = 50.21, $SD=10.89$, $\alpha=0.87$). Correlation analysis between specific activity scales (physical and mental) and the nine-item trying scale was done to get an insight

Table 2: Parameter estimates of the model to test nomological validity

Parameter	Maximum-likelihood estimate	t -value
<i>Intention</i>		
λ_{x11}	0.63	8.13
λ_{x21}	1.12	13.82
λ_{x31}	1.09	13.26
<i>Trying</i>		
λ_{y11}	0.88 ^a	—
λ_{y21}	0.46	5.79
λ_{y31}	0.71	9.45
<i>Goal attainment</i>		
λ_{y42}	1.00 ^a	—
<i>Structural parameters</i>		
λ_{11} Intention $\rightarrow$ trying	0.64	7.27
β_{21} Trying $\rightarrow$ goal attainment	0.32	3.96

^aParameter fixed for scaling

Note: All parameters are significant at $P<0.05$.

into the nature of consumer trying. The correlation between physical activities and consumer trying was 0.441 ($P<0.000$) and that between mental activities and consumer trying was 0.628 ($P<0.000$). Fisher's Z -test (Z -value = 2.40, $P<0.05$) suggested that the correlation for mental activities is stronger than that for physical activities. These results suggest that consumer trying involves both physical activities and mental activities and mental activities are strongly related when compared with physical activities.

DISCUSSION

The main objective of this research was to develop a measure of consumer trying. The nine-item new measure of consumer trying represents three interrelated dimensions of consumer trying: efforts applied to accomplish the consumption goal, pain or other suffering endured in order to attain consumption goal, and mental planning. The summated scale represents internal consistency as reflected in its reliability α , construct, discriminant, nomological and known sample validity.

The notion that behavioral intentions do not automatically translate into attainment of goals was recognized by many researchers.⁸ However, there were many operational definitions of trying. Also, there was no reliable and valid measure of

consumer trying. Present research was able to confirm ideas presented earlier. It is acknowledged that the degree of trying and specific mental and physical activities involved in trying to consume different items is likely to differ across product or service categories. Before developing actionable marketing strategies focusing on consumers who are trying to consume specific items, it might be necessary to identify activities that are relevant for specific products and services. Future researchers focusing on the relationship between intentions and purchase or consumption goal attainment might find the present measure of trying a valuable tool in investigating the relationship across different consumption situations.

Marketing practitioners might also find this measure to be a valuable tool. For a long time, marketers have used attitude-change-based strategies to influence consumer behavior. However, it has been well documented that attitudes and intentions are not very good predictors of attainment of consumption goals.⁶ As attainment of consumption goals has greater temporal proximity with trying to consume than it has with attitudes and intentions, trying might be better in terms of predicting attainment of consumption goals. As such, strategies aimed at measuring and influencing consumer trying in order to influence the attainment of consumption goals might turn out to be more effective. Any strategy to measure and/or influence trying to consume might produce better results than that obtained by using attitude measurement and modification. For example, marketing managers attempting to increase sales of some large ticket item involving several mental and physical steps while trying to purchase the same, may consider measuring the level of trying necessary to complete the process and developing strategies that encourage and facilitate the level of trying. If a customer finds that refinancing a mortgage is too complex and is ready to give up after some trying, the financial institution concerned could take appropriate actions to encourage the customer to complete the process. Similarly, online retailers have found that a large proportion of customers go through the process of shopping, select the items that they like, and then abandon

the shopping cart before completing the check out.²¹ Strategies designed to encourage customers to complete the process by influencing their trying could produce positive results. Given that online marketers sell low value items in addition to high value items, similar approaches could also be used for low value items. Although specific actions associated with trying to buy low value items may be different, the approach to encourage and influence trying could be equally beneficial. Future researchers might also attempt to establish reliability and validity of this measure across a variety of samples from different demographic and cultural backgrounds.

The development of this scale was based on student samples and the use of a scenario. The use of convenience sample limits external validity of the findings and it cannot be claimed that the measure of trying reported in this study could be universally applied. Although the consumption context used in the present research was appropriate for student sample, it was not representative of all consumption situations where trying to consume could play an important role. Future researchers might use other samples to validate the measure in samples drawn from demographically and culturally diverse populations and employ different consumption situations. Validation of the scale using different consumption situations and samples might help in establishing external validity of the same.

REFERENCES

- 1 Bagozzi, R.P., Yi, Y. and Baumgartner, H. (1990) The level of effort required for behavior as a moderator of the attitude-behavior relation. *European Journal of Social Psychology* 20: 45–59.
- 2 Young, M.R., DeSarbo, W.S. and Morwitz, V.G. (1998) The stochastic modeling of purchase intentions and behavior. *Management Science* 44(2): 188–202.
- 3 Ajzen, I. (1985) From intentions to actions: A theory of planned behavior. In: J. Kuhl and J. Beckmann (eds.) *Action Control from Cognition to Behavior*. Berlin: Springer Verlag, pp. 1–39.
- 4 Ajzen, I. (1991) Theory of planned behavior. *Organizational Behavior and Human Decision Process* 50: 179–211.
- 5 Ajzen, I. and Madden, T.J. (1986) Prediction of goal-directed behavior: Attitudes, intentions, and perceived behavioral control. *Journal of Experimental Social Psychology* 22: 453–474.
- 6 Bagozzi, R.P. and Warshaw, P.R. (1990) Trying to consume. *Journal of Consumer Research* 17(2): 127–140.

- 7 Mathur, A. (1998) Examining trying as a mediator and control as a moderator of intention behavior relationship. *Psychology and Marketing* 15(3): 241–259.
- 8 Bagozzi, R.P. (1993) On the neglect of volition in the consumer research: A critique and proposal. *Psychology & Marketing* 10(3): 215–237.
- 9 Bagozzi, R.P. and Edwards, E.A. (1998) Goal-setting and goal pursuit in the regulation of body weight. *Psychology and Health* 13: 593–621.
- 10 Murgaff, V., Walsh, J. and McDermott, M.R. (2000) The application of Bagozzi and Edward's theory of self-regulation to the prediction of low-risk single-occasion drinking. *Psychology, Health & Medicine* 5(4): 451–466.
- 11 Taylor, S.D., Bagozzi, R.P. and Gaither, C.A. (2001) Gender differences in the self-regulation of hypertension. *Journal of Behavioral Medicine* 24(5): 469–487.
- 12 Ajzen, I. and Fishbein, M. (1980) *Understanding Attitudes and Predicting Social Behavior*. Englewood Cliffs, NJ: Prentice Hall.
- 13 Howard, J.A. (1989) *Consumer Behavior in Marketing Strategy*. Englewood Cliffs, NJ: Prentice Hall.
- 14 Bay, D. and Daniel, H. (2003) The theory of trying and goal-directed behavior: The effect of moving up the hierarchy of goals. *Psychology & Marketing* 20(8): 669–684.
- 15 Burton, S., Lichtenstein, D.R., Netemeyer, R.G. and Garretson, J.A. (1998) A scale for measuring attitude toward private label products and an examination of its psychological and behavioral correlates. *Journal of the Academy of Marketing Science* 26(4): 293–306.
- 16 Faranda, W.T. (2001) A scale to measure the cognitive control form of perceived control: Construction and preliminary assessment. *Psychology & Marketing* 18(12): 1259–1281.
- 17 Bagozzi, R.P. and Yi, Y. (1988) On the evaluation of structural equation models. *Journal of the Academy of Marketing Science* 16: 74–94.
- 18 Peter, P.J. (1981) Construct validity: A review of basic issues and marketing practices. *Journal of Marketing Research* 18(2): 133–145.
- 19 Iacobucci, D., Ostrom, A. and Grayson, K. (1995) Distinguishing service quality and consumer satisfaction: The voice of the consumer. *Journal of Consumer Psychology* 4(3): 277–303.
- 20 Bagozzi, R.P. and Hetherington, T.F. (1994) A general approach to representing multifaceted personality constructs: Application to state self-esteem. *Structural Equation Modelling* 1: 35–67.
- 21 Kukar-Kinney, M. and Close, A.G. (2009) The determinants of consumers' online shopping cart abandonment. *Journal of the Academy of Marketing Science* 38(2): 240–250.

APPENDIX A

Scenario used in the study

Situation

When Amy graduated from her high school she wanted to get a car to be independent. It would not only give her freedom but

was necessary for her to commute to college and work. Coming from a middle class family she could not expect to get one automatically. She had to work hard and save money to help pay for it. She also had to convince her parents to let her get one. However, she also had to look for a suitable car that appealed to her, had her parents' approval, and fit into her budget. After doing some research she located her dream car, one that met all criteria. She wanted that car. Amy did everything in her power to get the car (see a) and had to overcome several obstacles. However, she was unable to get her dream car (see b).

Note: Alternate versions are given below.

- a: Amy did what most people would have done.
- b: She was able to get her dream car.

APPENDIX B

Items used to measure the variables

Intention

- Amy intended to get the car.
- Amy made an effort to get the car.
- Amy planned to get the car.

Trying

She worked extremely hard in her attempt to get the car.

Amy applied enormous effort to get the car.
How much effort did Amy apply to get the car?

She had to suffer a lot during her attempts to get the car.

Amy had to tolerate a lot while she was trying to get the car.

Amy sacrificed many things in order to get the car.

How much time did she spend on planning in her attempt to get the car?

How much will power did she have to get the car?

How much self-discipline did she have to get the car?

APPENDIX C

Items used in the physical and mental activities scales

Mental activities

1. Planning
2. Monitoring
3. Guiding her actions
4. Choosing alternatives
5. Making up her mind
6. Deciding
7. Thinking
8. Choosing
9. Organizing working
10. Reviewing

Physical activities

1. Traveling
2. Calling
3. Doing paperwork
4. Working
5. Talking
6. Writing
7. Physical work
8. Driving
9. Typing
10. Reading
11. Mailing
12. Buying
13. Meeting people
14. Preparing proposal
15. Presenting
16. Negotiating