

Factors Influencing Consumers' Warranty Purchase: The Interaction Effect of Mood and Personal Involvement

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ABSTRACT

An experimental design was employed to examine the effect of mood and involvement in consumers' decision to purchase a car warranty. It was proposed that after accounting for mood change, sad mood individuals who are less involved in the purchase situation will show higher likelihood to purchase the warranty compared to individuals in a happy mood who are highly involved. This prediction was tested on a sample of students (N = 229). Results supported the hypothesized prediction and showed a significant two-way interaction between mood and involvement. That is, subjects were more likely to purchase the car warranty in one of two situations: (1) when they were highly involved in the purchase situation, and (2) when subjects were in a sad mood regardless of the involvement level.

Keywords: Mood, Warranty Purchase, Involvement, Decision Making.

INTRODUCTION

A warranty purchase is a protective decision consumers can take to reduce the financial risk from a purchase. Empirical research has identified various factors that influence people's protective decisions. Among these factors are the affect toward the object, social influence, peace of mind, and return on investment (Kunreuther et al .1978). Overall, the results indicate that people's affect toward the object (i.e. love vs. disappointment) and their feelings toward a threatening event play a dominant factor in influencing their decision about buying the warranty (Piao, 2003). This finding is important in drawing attention to the role one's feelings toward an object play in deciding whether to buy a warranty for that object. These feelings are primarily derived from one's experience with that object. In real life, however, one may not have had the

opportunity to try the object over a long period of time. Moreover, one's feelings may not be directly related to the issue at hand. Therefore, it is important to examine the influence of indirect affect on our decisions about buying warranties.

This research examines the influence of additional factors on consumers' decisions about buying a warranty: mood and involvement. Mood states affect the shopping experiences we encounter. For example, imagine that two persons were shopping for a car. The first person just received good news that he was promoted. The second person, however, received bad news that he was not promoted. How would their mood state influence their decision to buy a warranty for their cars? This research focuses attention on situation where mood as uncontrolled factor by marketers influence consumers purchase decision in situations that are personally relevant to the consumers.

This research has theoretical and managerial implications. From the theoretical perspective, this research extends the work on warranty decisions by

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including mood and involvement as factors that influence the likelihood to purchase a warranty. From the managerial perspective, this research advances knowledge by identifying factors that influence decisions to purchase warranties and insurance policies. Previous research on warranty purchases has focused on an individual's affect toward the object under investigation as a driver for purchasing a warranty (Piao, 2003). This research focuses the attention on an individual's affect that is not related to the object under investigation. This is important from a practical point of view because an individual's affect toward the object is not the only factor driving the decisions. Unrelated affects may also contribute to the decision.

The paper is organized as follows. The literature on effect and involvement are presented, and how they are proposed to combine to impact warranty decisions. Included is the development of the hypotheses. The methodology and results of the experiment is then presented. Finally, a theoretical, managerial, and political implications of the findings are discussed.

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Role of Mood in Decision Making

When influencing individuals' judgment, mood may serve as a desired state, thus, play a regulatory role, or it may serve as information, and thus, play a facilitating role. When mood serves as individuals' final desired state, individuals tend to ignore negative information and seek positive information for the purpose of repairing their negative state or maintaining their positive state (Wegener and Petty, 1994). This finding is manifested in the mood management theory developed by Isen and colleagues (Isen and Patrick, 1983; Isen, Nygren, and Ashby, 1988).

The Mood Management Hypothesis states that people in a positive mood prefer to maintain their

positive state. Hence, they consider negative information carefully and make prudent risk-related decisions because they have more to lose if they make the wrong choice. As a result, they are risk-averse in their decisions. In contrast, people in a negative affective state are concerned about lifting their mood in order to move themselves out of the negative mood. As a result, they are less risk-averse in their decisions compared to those in a positive mood.

When serving as information, it is assumed that mood works as information through a "how I feel about it" heuristic where people tend to reflect on what their feelings mean for the judgment to be made. Hence, they end up mistaking their mood for their feelings about the target (Schwarz and Clore, 1983; Pham 1998). Schwarz and Clore(1983) found that respondents who were in a happy mood as a result of being interviewed in a sunny day reported higher level of life satisfaction than those who were in a bad mood as a result of being interviewed on a rainy day. These results reflect the misattribution error that people tend to commit due to the mood bias on judgment. These theories of effect explains the direct influence of incidental affect on judgment; as people rely on their present feelings to make complex judgment as long as the experienced feelings are perceived as relevant to the judgmental task.

Although they differ in explaining the affect role, these explanations base their prediction on the valance of the affect rather than the role of specific affects of the same or different valance. In the present paper, I adopt the traditional valance approach of individuals' mood state to examine how mood influences individuals' subsequent judgment. This is cardinal at this point of time due to the conflicting and mixed evidence found in the literature regarding the role of individuals' mood.

Fedorikhin and Cole (2004) examined the effect of mood on individuals' attitude, risk perception, and

choice toward a new product in the context of high Vs low constructive processing capabilities. The authors manipulated participants' mood by selecting four minutes episodes from two movies, each aimed at inducing either positive or negative mood. Generally, respondents had to viewed mood inducing video and complete the mood scale before they evaluate the target product (cookies). Fedorikhin and Cole (2004) found an interaction between the amount of constructive processing and mood on consumer attitude towards a new product such that attitude becomes more positive as mood becomes more favorable with the effect being stronger under high than low constructive processes.

Furthermore, the results showed that consumers in positive mood perceive lower probabilities in incurring losses from purchasing a new product than consumer in negative mood. The authors attributed this finding to the "availability" heuristic as individuals tend to recall mood-congruent information from their memory. However, other possible explanation which the authors didn't account for in their study is the individual differences in responding to framed messages. This articulated in the mood-repair and hedonic contingency framework explanations (Schaller and Cialdini, 1990; Wegener and Petty, 1994).

Zhang and Fishbach (2005) explored the role of people's anticipated negative feelings about the possible loss of what they own. Participants were given the opportunity to use a popular pen. Half of the participants (sellers) were told that the pen was theirs to keep (i.e., endowed to them), the other half (buyers) were given cash money and were offered the opportunity to buy the pens. The authors examined the influence of mood on the magnitude of the endowment effect (the difference between prices buyers were willing to pay for the pen and the amount the sellers were willing to accept for the pen). A negative mood was induced by asking the

participants to complete a negative life events survey. A positive mood was induced by asking participants to respond to a series of funny thought questions. The authors concluded that when people did not anticipate negative feelings (they were in a positive mood), their willingness to trade the object increased, and both buyers and sellers offered a similar price, but when people anticipated negative feelings (they were in a negative mood), the disparity between the two prices increased, and the endowment effect was established.

To sum up, the results from the above studies suggest that positive mood tend to influence individuals' attitude positively and, therefore, reduce the level of risk perception from a purchase. This influence, however, is qualified by the processing resources available, such that the influence is high when the resources are available. Therefore, it is important to examine how the level of personal involvement and level of resources available may qualify the effect mood on purchase intention.

Role of Involvement in Decision Making

Research has shown that a person's affective state influences attitude and has a complex influence on risk perception and risk preference. For example, people in a positive affective state have been found to be risk-averse in choice situations where there is a chance for a meaningful loss (Arkes et al., 1988). However, when the situation is seen as low in risk, they tend to show risk-taking behavior (Nygren, 1998).

Shiv and Fedorikhin (1999) found supporting evidence for the influence of cognitive load and processing resource on consumers' choice. Across two experiments respondents choose between two alternatives: one (chocolate cake) associated with more intense positive affect but less favorable cognitions, compared to a second (fruit salad) associated with less favorable affect but more favorable cognitions. Findings from the two experiments suggest that if processing

resources are limited, the consumer is more likely to choose the alternative that is superior on the affective dimension but inferior on the cognitive dimension (e.g., chocolate cake). In contrast, when the availability of processing resources is high, the consumer is more likely to choose the alternative that is inferior on the affective dimension but superior on the cognitive dimension (fruit salad).

The Heuristics and Systematic Model (HSM) (Chaiken, 1989) was developed to explain individuals' responses to a marketing stimulus. The HSM suggests two ways by which mood may influence consumers' judgment: (1) mood may serve as a cue, or (2) mood may influence the extent of information processing activities. Swinyard (1993) examined how individuals' mood and involvement influence consumers' shopping intention. The results indicated a significant two way interaction between mood and involvement, such that, the mood effect was greater during a more involved shopping experience. Hence, shopping intention increased only when people were in a good mood and in more involving situations. These results are consistent with the involvement theories, as involved consumers are more active processors of information cues.

I believe that the conclusion that positive mood effect is greater when individuals are more involved in the shopping experience is incomplete. In the previously mentioned study, subjects' shopping intention was measured after they were exposed to the mood induction and the involvement treatment. It is possible that individuals' mood has changed due to the involvement task subjects had to perform, thus, the significant finding may have been confounded due to the carry over effect the change in subjects mood caused. The change in mood reduces the amount of cognitive resources consumers have to process the information, which in turn, may influence their subsequent decisions. In this research, I

account for such possibility by measuring mood after the mood treatment as well as at the end of the study. If mood changed at the end of the study compared to the subjects' mood before the treatment, the amount of cognitive resources for information processing will be less, which may have an effect on individuals' decision to buy the warranty. Previous research found that happy mood influences purchase likelihood when subjects are highly involved in the purchase situation (Swinyard 1993). My argument is that individuals' purchase likelihood will go beyond simply the interaction of mood and involvement and that the change in individuals' mood will have a reverse effect such that individuals in a sad mood who are less involved in the purchase situation will have greater effect on the likelihood to purchase the warranty.

RESEARCH DESIGN

Design: 2 (Mood: positive vs. negative) x 2 (involvement: high vs. low) between-subjects design. Using Qualtrics software for data collection, 229 students from a Midwestern region school in USA participated in this study. Computer lab setting was used for data collection, where every participant used his/ her own terminal and received the treatment condition. All participants had the same amount of time for data completion and received the same instructions. No questions were allowed in the lab and all electronic devices were taken from the participants.

Mood Manipulation

Because the experiment focuses on the influence of affect valence, it is important to manipulate participants' affect valence (either positive or negative) controlling for variation in arousal. Although previous research suggested several techniques to manipulate valence (music, gift giving, feedback, life story, videos); they either manipulated affect valence with while ignoring the arousal level (Keller 2003; Pham 1998) or

manipulated valence and arousal orthogonally in the same study (Shapiro et al 2002). Gorn et al (2001) used music to manipulate participants' affect valence (pleasant- unpleasant) controlling for arousal; the authors choose two stimuli that differ in valence but perceived to be highly aroused. Since highly aroused individuals perceive high risk compared to quite individuals (Mano,1994) and the arousal influence on ad evaluation appears when there is a clear affective positive or negative ad tone (Gorn et al 2001), therefore, controlling for arousal by using high aroused stimuli appears to confound the results of ad evaluation and risk perception.

To manipulate mood, in this experiment, participants were asked to write a life inventory passage that elicits a happy mood in one condition and a sad mood in another. As a manipulation check, questions on the survey verify the magnitude of the manipulations for individuals' mood. For individuals' mood, participants were asked to rate on a 7- point scale their agreement with how they were feeling (unpleasant, happy, and in a good mood) (Keller et al 2003).

Next, participants received a car warranty scenario. The scenario stated that the probability of mechanical failure is 25%, the cost associated with repairs is \$2,000, and the cost of the warranty offered by the dealer is \$500. In this research, participants' involvement was measured not manipulated. Participants were asked to indicate how relevant the car warranty scenario was for them. Participants then indicated their purchase intention, and their mood was measured again at the end of the experiments.

Manipulation Check

The success of the mood manipulation was first checked. Results from ANOVA with measured mood as a dependent variable and mood condition (sad vs. happy) as an independent variable revealed a significant

difference in subjects' mood between happy and sad conditions [$F(1,228) = 658.36, p < 0.00$]. The mood mean for subjects who were asked to report happy events was 6.03, compared with 2.86 for those who were asked to report sad events. Moreover, an independent sample t-test was run to examine the mood change at the end of the study. The results indicated a significant change in subjects' mood at the end of the study [$t(228) = 25.6, p < 0.00$]. Finally, to check if the scenario was relevant, a t-test was run with relevance as a test variable. The results revealed that subjects rated the decision scenario as relevant [$t(229) = 55.3, M = 4.6, p < 0.00$].

Measurement Model

The measurement model of the scaled variables was examined using EFA, and reliability. For mood, participants were asked to rate on a seven- point scale their agreement with statements about how they were feeling (i.e., enjoyable, unpleasant, and happy) (Keller et al, 2003). The EFA results revealed a single-factor solution where all three items of the mood scale loaded on one factor with factors loading greater than 0.80. The explained variance of the single-factor solution was 72%. The coefficient alpha for the three-item mood scale was 80.

For purchase likelihood, participants rated three statements on a 7-point scale that reflect their agreement with purchase the car warranty (i.e. I would buy the described car warranty).

The EFA results revealed a single-factor solution where all three items loaded on one factor with factor loadings greater than 0.80. The explained variance of the single-factor solution was 62%. The coefficient alpha for the three-item mood scale was 70.

Hypotheses Testing

It was hypothesized that when controlling for individuals' mood change, individuals in a sad mood

who are not involved in the purchase situation will show higher likelihood to purchase the warranty compared to individuals in a happy mood who are highly involved.

Before running the analysis, involvement was classified as either high or low based on a median split on "relevant item" that measure individuals'

involvement (M =5.00). To test the hypothesized predictions, an ANOVA was run to examine the two way interaction between mood and involvement with warranty purchase as a dependent variable. As can be seen in figure 1 below, the results revealed a significant mood by involvement interaction [t =3.5, p < 0.06].

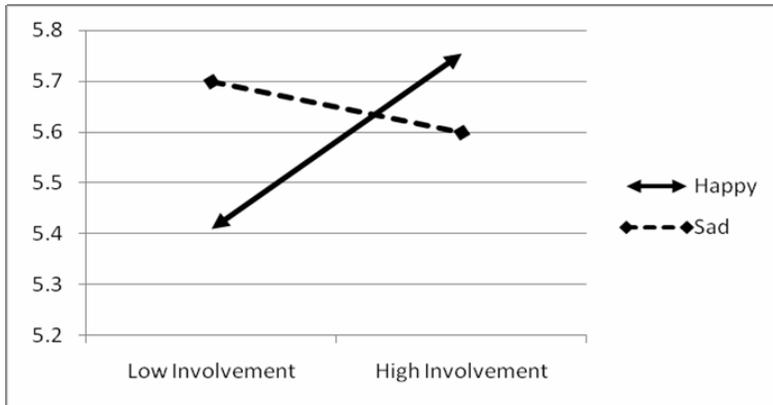


Figure 1: Mood by Involvement Interaction

These results are consistent with previous research on mood and involvement, such that happy mood influences purchase likelihood when subjects are highly involved in the purchase situation. However, sad mood influences purchase likelihood when individuals are less involved in the purchase situation (Swinyard, 1993).

The next stage of analyses is to test whether or not the previous pattern of results remains the same when accounting for mood change. In here, an ANCOVA was run with subjects mood measured at the end of the study

was included as a covariate. As can be seen in figure 2 below, the results revealed a significant mood by involvement interaction [t =4.0, p < 0.04], and significant main effect for mood change [t =10.9, p < 0.00]. Furthermore, the results indicated that the participants reported higher likelihood to purchase the warranty when :(1) subjects' were in a sad mood state regardless or of how involved they were in the purchase situation, and (2) when subjects were in a happy mood and were involved in the purchase situation.

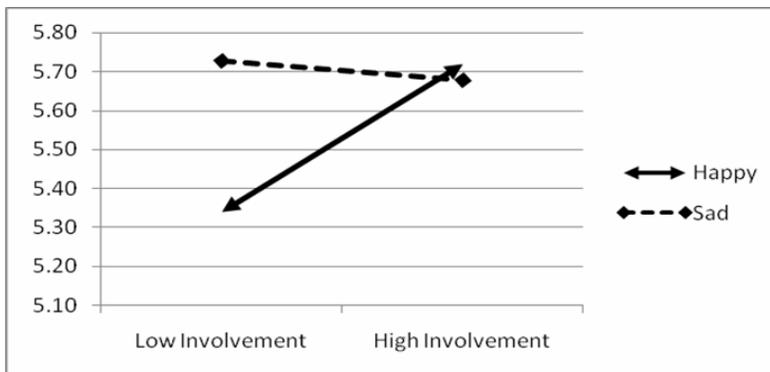


Figure 2: Mood by Involvement Interaction

These results have magnificent implications because it extends previous work on mood and involvement effect. As mentioned previously, happy mood was found to influence shopping intention only when individuals were highly involved with the shopping experience, and this effect was greater than when individuals were in a sad mood and less involved with the shopping experience. In this research, when accounting for individuals' mood change, the reverse results were found. More precisely, when individuals were highly involved in the purchase situation, the results showed no difference in purchase likelihood between happy and sad mood individuals. In contrast, purchase likelihood was highest when individuals were in a sad mood and less involved in the purchase situation.

THEORETICAL IMPLICATIONS

This research has a number of theoretical implications. The findings extend the involvement and affect literature by providing evidence indicating sad mood as a driving factor for consumers' purchase. This result is counter intuitive to the extant literature on mood and that asserts the importance of happy mood to increase consumers' purchase intention.

Another important addition of this research is that it draws the attention to the importance of measuring individuals' mood at multiple points. It is noticeable from the previous research that participants' mood was assessed only one time and at the beginning of the experiment. This assessment did not allow for systematic assessment of both tonic affect levels and changes in affective state. This is important because we can infer whether the mood effect was results from simply individuals' difference in the magnitude of reaction to affect relevant event (affective reactive view) or the effect is manifested at the tonic level, hence, it is observable at any time in nearly any circumstances

(affect-level view) (Gross et al (1998).

MANAGERIAL IMPLICATIONS

In addition to focusing the attention on the role of indirect affect and involvement in affecting consumers' decision, the finding from this research provides managers and sales people with framework to increase their sales of protective products (i.e. warranties). Because individuals' mood is likely to decline during the shopping experience and the interaction with the sale people, it is recommended to: (1) keep the consumers in a happy mood state and increase the importance and relevance of the purchase situation to them, or (2) enforce the sad mood state on the consumers. In both ways, their likelihood to purchase the warranty will increase.

RESEARCH LIMITATIONS AND FUTURE RESEARCH

There are limitations with this research. One limitation is the generalizability of the findings. The proposed model was tested in a car warranty context, which is a preventive context, which may have influenced the results especially with the higher than average response pattern observed for the warranty purchase items. Future research should replicate the findings in a neutral context that is not social desirable. For example, one could adopt a context related to financial plans or a musical concert. Moreover, it is established in the affect literature that emotions of the same valence (i.e., fear and anger) trigger different behavioral responses, and that they vary in the level of control (Lerner and Keltner, 2001). Therefore, a second area of research is to examine the joint effect of frame and specific emotions (i.e., anger, fear, hope, aspiration) on consumers' judgments. This would be examined within the cue diagnosticity context, in which the weight that individuals give to each of these emotions, frames, and goal orientations in forming the overall judgment is

investigated.

It is also important to note that data were without manipulating involvement which was derived by relying on measuring how relevant the purchase situation to the consumers. Although this was done to eliminate any

potential carry over effect, to generalize the finding, future research should attempt to manipulate both mood and involvement and adopt more robust scale to measure individuals' involvement.

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