

THE EFFECT OF PERCEPTUAL FLUENCY AND SELF-CONFIDENCE ON THE FRAMES OF TOURISM DECISIONS

Vivian Yi-Ju Chen¹, Chia-Jung Chang^{2*} and Yi-Heng Chiu³

¹ Department of Marketing and Logistics, Florida International University

² Department of Business Administration, National Taiwan Normal University

³ Graduate Institute of Management, National Taiwan Normal University

* Corresponding Author: Chia-Jung Chang, No. 31, Shida Rd, Da-an District, Taipei City, Taiwan, E-mail: cjchang1979@gmail.com

Abstract: This study demonstrated that general and specific self-confidence moderated the framing effect of tourism decisions, and perceptual fluency mediated the relationships between self-confidence and framing effect. Under the tourism decision conditions, the results showed that low general or specific self-confident consumers were more likely to be influenced by the gain and loss decision frames due to their low level of perceptual fluency.

Keywords: framing effect, general self-confidence, specific self-confidence, perceptual fluency

I. INTRODUCTION

The streams of research on decision making area have focused on the discussions of framing effect for several decades. Since Tversky and Kahneman (1981) first mentioned the existence of risky framing effect, lots of following researchers demonstrated the important roles of framing effect on different academic fields. Recently, some researchers in the field of tourism examined how decision frames influence consumers' judgment and decision. For example, Jin, He and Song (2012) investigated how decision frames affects travelers' decision making in a package-tour customization task. Sparks and Browning (2011) framed the reviews (negative vs. positive frames) and demonstrated that consumers might be more influenced by negative information, especially when the overall set of reviews is negative.

In these studies, an important perspective — information processing has been emphasized on the links with framing effect. Sparks and Browning (2011) found that consumers tend to rely on easy-to-process information, when evaluating a hotel based upon reviews frames. Kim *et al.* (2018) also showed that the decision frames of variety-seeking behavior could be related to

the information process. Based on the streams of research on information processing, this study tried to examine the moderating role of self-confidence on framing effect and the mediating role of perceived fluency as the theoretical link on the relationship between self-confidence and framing effect. According to Chuang *et al.* (2013) presented that self-confidence played a key factor in the information process of making decisions and reversed consumers' decision when facing compromising options regarded as a heuristic option. In additions, Tsai and McGill (2011) mentioned that fluency of confidence may moderate the decision-making process with uncertainty and risk. Combined with the heuristic-systematic model of information processing provided by Chaiken (1980) and the abovementioned studies, it was reasonable to infer that perceived fluency induced by the related information about decision frames may provide an explanation for the relationship between self-confidence and framing effect.

Thus, this research designed an experiment to examine the moderating role of self-confidence on the framing effect of tourism plans and the mediating role of perceived fluency on the relationship between self-

confidence and framing effect. In addition, his study also distinguished between general and specific self-confidence in order to generalize these findings in both the literature on the framing effect and tourism.

II. LITERATURE REVIEW

2.1. Decision Frames

The framing effect means that people tend to choose a certain (riskless) option in gain frames, and choose uncertain (risky) options in loss frames (Tversky and Kahneman, 1981). Although the framing effect has been widely studied in different domains, such as Economics, Sociology, and research on consumer behavior (Huang *et al.*, 2013), only a few studies have examined how decision frames influence the perception of tourism plan. For example, Jin, He and Song (2012) investigated how decision frames affects travelers' decision making in a package-tour customization task and demonstrated that option framing influences peripheral services more than core services. Kim, Kim and Kim (2018) also demonstrated that travelers tended to have higher variety-seeking in travel package frames selected from a combined decision rather than from two single decisions. Sparks and Browning (2011) framed the reviews (negative vs. positive frames) and demonstrated that consumers might be more influenced by negative information, especially when the overall set of reviews is negative.

2.2. Decision Frames, Self-Confidence and Perceived Fluency

In these abovementioned studies, information processing has been emphasized on the links with framing effect. Sparks and Browning (2011) found that consumers tend to rely on easy-to-process information, when evaluating a hotel based upon reviews frames. Kim *et al.* (2018) also showed that the decision frames of variety-seeking behavior could be related to the information process. Combined with the streams of research in information processing, self-confidence and perceived fluency had important impact on it (e.g., Chang, 2013; Chuang *et al.*, 2013). According to prior studies, self-confidence can be divided into two kinds: general and specific self-confidence. Rosenberg (1965) presented that general self-

confidence was one kind of positive or negative attitude toward an object. Specific self-confidence was regarded as one owning the specific knowledge to solve the specific things. Koehler (1991) found that less uncertainty (riskless) made people more confident about choosing what they really liked. Luce (1994) finds that self-confidence may be a defense in pressured or difficult situations. Bearden, Hardesty, and Rose (2001) argued that self-confidence can motivate decision-makers to search for assistance when faced with a decision. This research has also demonstrated that self-confidence determined whether people overcome difficult (disfluent) conditions. Combined with Prospect Theory, which shows that risk preference differs in gain and loss contexts with risk-averse behavior being displayed in gain situations and risk-seeking behavior being displayed in loss situations (Kahneman & Tversky, 1979), and the heuristic-systematic model of information processing, one can infer that self-confidence may moderate the framing effect: individuals with high self-confidence tend to choose risky options, whereas individuals with low self-confidence tend to choose riskless options. Like Ghosh and Ray (1997), they claim that "decision makers who are less risk averse, and have more tolerance for ambiguity, show greater confidence in their choice".

In addition, in order to generalize this inference, this article provided another explanation for how self-confidence influences the framing effect. Prior studies on fluency have explored the difficulty or ease with which information is processed (e.g., Schwarz, 2004). Tsai and McGill (2011) examine how fluency of confidence moderates the decision-making process. Given this, it was reasonable to infer that fluency induced by consumer metacognitive experiences might provide an explanation for the relationship between self-confidence and tourism decision frames.

Thus, this study examined the moderating effect of self-confidence on tourism decision frames. In order to extend the generalizability of our findings, this study simultaneously measured both general and specific self-confidence. This means that consumers used both specific and background knowledge to solve problems, and so we need to measure both in order to see if the moderating effect is consistent. Finally, the underlying theory of

perceived fluency induced by metacognitive experiences as the mediating role between self-confidence and the framing effect was also examined.

III. METHOD

3.1. Participants and design

Initially, 200 undergraduates, including 108 males and 92 females with an average age of 20.8 (SD = 1.2), were randomly and equally assigned to a one factor two levels (frame: gain vs. loss) between-subjects experimental design.

3.2. Decision scenarios

The decision problems used in this study were two versions of the Tourism Plan Problem and Hotel Order revised from Kahneman & Tversky's (1981) study. A positively framed problem described the alternative options in terms of the number of paintings saved and the amount of money saved. A negatively framed problem described the options in terms of the number of paintings destroyed and the amount of money lost. All problems consisted of a sure thing and a risky option of equal expected value.

3.3. General self-confidence scale

The general self-confidence scale was established by Day and Hamblin (1964). The reliability and validity of the scale have been demonstrated in previous research (e.g., Bell, 1967). The scale contained ten items rated on a seven-point Likert scale ranging from strongly agreed to strongly disagree. All of the items were listed in Appendix 1.

3.4. Specific self-confidence scale

The measurement of the specific self-confidence was developed from Bell (1967). Instead of Bell's car purchase, paintings were used as the product categories in this study. The specific self-confidence contains six items, which were rated on a seven-point Likert scale ranging from strongly agree to strongly disagree, listed in Appendix 2.

3.5. Perceived fluency

The perceived fluency instrument developed by Lee and Shavitt (2009) was used in this study. Both its reliability

and validity were examined in their research. The scale contained three items (difficult/ disfluent/ easy), which were rated on a seven-point Likert scale ranging from strongly agree to strongly disagree.

3.6. Procedure

At the beginning of the task, participants were assured of anonymity and advised of their right to withdraw at any time; then they were also asked to imagine that they faced a Tourism Plan Problem and Hotel Order, and read the scenario carefully before making their preferred decisions. After they have read carefully and have made their decisions, they were asked to complete the three scales to measure their general self-confidence, specific self-confidence, and metacognitive experience of difficulty. All of the data in each group were collected and analyzed.

3.7. Results

3.7.1. Reliability for each scale

All of the scales used in Study 1 demonstrated their reliability as follows: The reliability of the General self-confidence scale was Cronbach's $\alpha = .85$; the reliability of Specific Self-Confidence scale was Cronbach's $\alpha = .90$; the reliability of perceived fluency scale was $\alpha = .91$.

3.7.2. Hypothesis testing results

Based on Aiken and West's (1991) and Fitzsimons' (2008) studies, the regression analysis of Tourism Plan Problem indicated significant interactions between general self-confidence and the framing effect (riskless option was coded as 1 and risky option is coded as -1), and between specific self-confidence and framing effect ($\beta_{\text{general}} = -.34$, $p < .01$; $\beta_{\text{specific}} = -.36$, $p < .01$). Besides, the regression analysis of Hotel Order also showed significant interactions between general self-confidence and the framing effect, and between specific self-confidence and framing effect ($\beta_{\text{general}} = -.35$, $p < .01$; $\beta_{\text{specific}} = -.32$, $p < .01$). More clearly, participants under high self-confidence chose more risky options in all decision frames. Even those with high self-confidence in the gain frames, which were supposed to be chosen more riskless

options by Prospect Theory, showed an obvious tendency to choose more risky options. On the contrary, low self-confidence participants chose less risky options even in the loss decision frames. That is, our inference is supported.

3.7.3. Mediation analysis

To analyze whether the effects of difficulty mediate the relationship between framing effect and self-confidence, a mediation analysis was conducted based on the procedure set out by Baron and Kenny (1986). Under the scenario of Tourism Plan Problem, the results showed that the general or specific self-confidence has a significant impact on framing effect ($\beta_{\text{general}} = -.34, p < .01$; $\beta_{\text{specific}} = -.36, p < .01$). Regression analysis revealed that general/specific self-confidence had a significant effect on perceived fluency ($\beta_{\text{general}} = .62, p < .01$; $\beta_{\text{specific}} = .64, p < .01$). Furthermore, when the framing effect was regressed on general or specific self-confidence and perceived fluency, the regression coefficient of the self-confidence decreased from .21 ($p < .05$) to .12 ($p > .10$) or from .22 ($p < .05$) to .12 ($p > .10$). The coefficient of perceived fluency remains significant ($\beta_{\text{general}} = -.22, p < .05$; $\beta_{\text{specific}} = -.21, p < .05$). In addition, under the Hotel Order, the similar results showed that the general or specific self-confidence had a significant impact on framing effect ($\beta_{\text{general}} = -.35, p < .01$; $\beta_{\text{specific}} = -.32, p < .01$), and general/specific self-confidence had a significant effect on perceived fluency ($\beta_{\text{general}} = .63, p < .01$; $\beta_{\text{specific}} = .60, p < .01$). Furthermore, when the framing effect was regressed on general or specific self-confidence and perceived fluency, the regression coefficient of the self-confidence decreased from .23 ($p < 0.05$) to .13 ($p > .10$) or from .22 ($p < 0.05$) to .12 ($p > .10$). The coefficient of perceived fluency remained significant ($\beta_{\text{general}} = -.23, p < .05$; $\beta_{\text{specific}} = -.21, p < .05$). All of these results indicated that perceived fluency mediated the relationship between the framing effect and general/specific self-confidence.

IV. GENERAL DISCUSSION

The study made a contribution to the literature on the determinants of and influences on the tourism framing effect. Previous research had focused to a great extent on the positive or negative decision frames and how

different frames influenced the individuals' decision making. To overcome this gap, this study examined the influence of the individual characteristic of self-confidence on the tourism framing effect, which was regarded as an important factor in consumer decision-making (Bearden *et al.*, 2001; Park, Mothersbaugh, & Feick, 1994). Although McElroy, Seta, and Warring (2007) have examined how self-esteem determined the decision frames, self-confidence was different from the perspective of self-esteem. For example, Bearden *et al.* (2001) argued the use of self-esteem measured to equal the consumer self-confidence has caused an equivocal pattern of effects. They presented two reasons to account for these mixed results. First, self-esteem was a global personal trait that would have only limited correspondence with self-confidence as related to consumer and marketplace phenomena. Second, the dimensionality and validity of the most frequently employed measure of self-esteem, which was highly correlated with social desirability bias and lacked stable factor structure, have been questioned. Thus, this study not only examined how self-confidence influenced the risky framing effect, but also further demonstrated the moderating role of general and specific self-confidence on decision frames.

A mediating role of perceived fluency on the relationship between general or specific self-condition and framing effect was also examined. More clearly, by focusing on metacognitive experience of perceived fluency, this study provided a different perspective from Tversky and Kahneman's study (1981), which proposed that the framing effect may be a result of imperfections in terms of human perception. Our research provided a new look that general and specific self-confidence may determine if people to overcome the metacognitive experience of difficulty induced by gain or loss decision frames, and also may determine the appearance or disappearance of the framing effect. In other words, people with high general or specific self-confidence had fewer tendencies to become subject to the framing effect due to their low level of difficult in decision making, whereas individuals with low general or specific self-confidence were more likely to be influenced by the gain and loss decision frames due to their high level of perceived fluency.

In addition, self-confidence was associated with many types of consumer behavior, including individualism (Chelminski and Coulter, 2007), the perceptions of product knowledge (Park *et al.*, 1994), attention to the labeling of the products (Barber, Almanza, & Donovan, 2006; Barber, Ismail, & Taylor, 2007), consumers' hedonic orientation and utilitarian value (Paridon, 2006), and skepticism toward market assertions (Brown and Krishna, 2004). However, most research on consumer self-confidence has focused on individuals' judgment rather than their decision making. This study examined consumer choice to further explain the impact of self-confidence on the framing effect, thus building on the previous literature.

Finally, this study only focused on the one kind of framing effect, even though, Levin *et al.* (1998) distinguished frames into three types: risky, attribute and goal decision frames. Therefore, further research may try to examine the influence of self-confidence on other frames and real decision contexts. For example, self-confidence may connect with advertising and persuasion effects as a moderator to provide a better understanding of the different framing effects.

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Appendix 1

1. I feel capable of handling myself in most social situations.
2. I seldom fear my actions will cause others to have a low opinion of me.

3. It doesn't bother me to have to enter a room where other people have already gathered and are talking.
4. In group discussions, I usually feel that my opinions are inferior. (R)
5. I don't make a very favorable first impression on people. (R)
6. When confronted by a group of strangers, my first reaction is always one of shyness and inferiority. (R)
7. It is extremely uncomfortable to accidentally go to a formal party in street clothes. (R)
8. I don't spend much time worrying about what people think of me.
9. When in a group, I very rarely express an opinion for fear of being thought ridiculous. (R)
10. I am never at a loss for words when I am introduced to someone.

Note: (R) denotes reverse-coded items.

Appendix 2

1. In general, I have had a lot of experiences in purchasing tourism/hotel products.
2. I have good ability to purchase tourism/hotel products
3. I am confident in my efforts at purchasing tourism/hotel products.
4. I have not had the chance to learn about purchasing tourism/hotel products.(R)
5. I usually notice the information of new tourism/hotel products.
6. I usually teach people purchase tourism/hotel products.

Note: (R) denotes reverse-coded items.