Regulatory Focus and Investment Advisers' Recommending Behavior

Abstract

Purpose

This study examines the effect of a regulatory-focused prime (i.e., a brochure with a picture and message) on the recommending behavior of investment advisers in the context of an investment decision.

Design/Methodology/Approach

Three experiments were conducted with 468 participants, mostly from the financial services industry. Study 1 examined the direct effect of a regulatory-focused prime on an investment adviser's recommending behavior, whereas Study 2 examined the moderating role of regulatory fit on such behavior. Study 3 validated the findings.

Findings

The results provide evidence that a message using visual and textual cues based on a promotion and prevention regulatory focus may trigger a preference in an investment adviser's product recommendation. A promotion (prevention)-focused framed message will trigger the recommendation of an investment plan with a higher but riskier (safe and stable) potential return. However, when the same prime is presented with details of a performance incentive scheme, the effect of the prime is reduced when there is a regulatory non-fit between the prime and the message relating to the performance incentive scheme.

Practical Implications

The findings highlight the importance of understanding how regulatory-focused stimuli may subconsciously influence the recommendation of investment advisers as heuristics used in decision-making, thereby influencing their clients' investment decisions.

Originality

Past studies have focused on how regulatory-focused visual and message cues influence consumer decision-making. This study provides empirical evidence regarding the influence of regulatory-focused prime on an investment adviser's behavior when providing investment advice.

Keywords: *regulatory focus, recommending behavior, visual cue, performance incentive.*

Introduction

Investment advisers play a crucial role in assisting their clients to manage their wealth. Prior to managing their clients' investment portfolios, investment advisers assess their clients' current risk profiles and specific investment needs, and tailor their investment recommendations accordingly (Wirig and Poorbaugh, 2017). This implies that the advice given is rational and objective and not influenced by message priming, which is a form of heuristic. However, past studies (e.g., Gilovich *et al.*, 2002; Kahneman, 2011) show that individuals simplify their financial decision-making process by applying heuristics rather than going through a rational decision-making process. This study seeks to address the question of whether investment advisers are also subject to the effects of priming after exposure to regulatory-focused primes delivered through a brochure using both visual and textual cues. This is an important question, since investment advisers are expected to provide advice that best meets the needs of their clients and is free from the influence of their own psychological predispositions (Frumento and Korenman, 2013).

Background

This research was conducted in Malaysia, an upper middle-income country with increasing demand for investment products such as unit trusts (i.e., mutual funds) (SC, 2019). The investment advisers or consultants referred to in this study are involved in selling investment plans or unit trusts. Their main role is to promote their company's investment products to potential clients. Although investment advisers are governed by the regulations of the Securities Commission Malaysia (SC) and the Federation of Investment Managers Malaysia (FIMM), they still have a certain degree of flexibility in providing recommendations on investment products.

Malaysians generally prefer to purchase investment products from channels such as commercial and investment banks, asset or investment management companies, investment advisory companies, and fund management companies. As there are currently about 685 mutual funds available in the market (SC, 2019), it is difficult for consumers to determine which funds are most suitable for their investment needs. While financial knowledge is deemed essential for making this complex financial decision (Guiso and Viviano, 2015), financial literacy among Malaysians is quite low. For instance, one in three Malaysians is not comfortable with their financial knowledge (AKPK, 2019). According to a national survey conducted by FIMM (2020), although investors may have their own investment preferences, both existing investors and non-investors prefer getting investment advice from investment advisers or consultants before making their investment decisions. Hence, investment advisers play an important role in providing advice to potential investors.

Clients' risk preferences and investment needs are assessed prior to recommending investment products, and investment advisers recommend options based on the results of the assessment. As such, investment advisers would normally recommend risky options to clients willing to take higher risks and less risky options to those who are more risk averse. Clients, however, may still choose a higher (or lower) risk investment option than the risk category suitable for them based on their assessment. All that is required is their signature on the assessment form to confirm their decision to choose an option that is contrary to their risk profile. Therefore, it is still possible to recommend higher risk options to investors with a low risk preference or lower risk options to investors with a high risk preference. In view of this possibility, it is crucial to determine if exposure to information just prior to recommending an investment influences investment advisers' recommending behavior. This research proposes that exposure to regulatory focused stimuli may influence investment advisers' recommending behavior.

Regulatory-Focused Stimulus

Priming using a regulatory-focused stimulus, such as a message that uses visual and textual cues, is based on regulatory focus theory (RFT) (Higgins, 1997) that describes how a stimulus may trigger a situational state of self-motivational orientation that causes the automatic use of heuristics when making a decision. RFT posits that individuals are guided by two distinct motivational systems (promotion and prevention) in attaining their desired outcome. These two motivational systems may influence risk-seeking behavior (Scholer and Higgins, 2013) and the perception of value (Song and Qu, 2019). When individuals are in the state of promotion focus, they tend to value higher growth and are more willing to take risks, whereas they are more concerned about safety and are less willing to take risks when they are in the state of prevention focus (Zou *et al.*, 2014). Individuals may be more promotion-focused or prevention-focused as part of their traits, or a particular orientation may be temporarily activated through exposure to stimuli that are associated with different regulatory foci, which is known as situational regulatory focus (Zhao and Pechmann, 2007).

Past studies (e.g., Gardner *et al.*, 1999; Higgins, 1998; Hong *et al.*, 2000) revealed that although some individuals are chronically more promotion- (prevention-) oriented, they can be activated to be more prevention- (promotion-) focused through experimental regulatory focus manipulation. This temporary activation, that is, situational regulatory focus, may subsequently influence decision-making (Gardner *et al.*, 1999). Therefore, the aim of this study is to investigate the influence of situational regulatory focus through primed messages on investment advisers' recommending behavior. Specifically, the study aims to address the following research questions: 1. How does a regulatory-focused prime using visual and textual cues affect an investment adviser's recommending behavior?; and 2. Does regulatory fit moderate the effect of a regulatory-focused prime on an investment adviser's recommending behavior when the primed message is presented together with a performance incentive scheme?

This study demonstrates, across three experiments, that investment advisers' behavior may be influenced by situational regulatory focus activated by visual and message priming. Nevertheless, the regulatory fit between a regulatory-focused prime and a performance incentive may influence the strength of the prime. The following section presents the literature review undertaken and the hypotheses developed for this study.

Literature Review

Regulatory Focus and Its Priming Effect

RFT states that self-regulatory focus can be situationally or temporarily manipulated through priming to be more promotion- or prevention-focused, regardless of the individual's chronic predisposition. Situational self-regulatory focus can be activated via situational contexts (Briley *et al.*, 2000), referencing tasks (Aaker and Williams, 1998), framing (Avnet and Higgins, 2006; Wang and Lee, 2006; Zhou and Pham, 2004), and primes (Cropanzano *et al.*, 2008; Gardner *et al.*, 1999; Van Dijk and Kluger, 2011). While some empirical evidence has shown that regulatory focus can be activated via message framing and tasks (e.g., Higgins, 2002; Semin *et al.*, 2005; Yi and Baumgartner, 2009), there is less research on using visual cues as a prime. Adams *et al.* (2011) showed that exposure to advertisements may evoke a situational self-regulatory focus. Ewe *et al.* (2018) revealed that a visual cue framed with different orientations of regulatory focus may activate either a situational promotion or prevention focus in individual financial decision-making. Their study showed that exposure to a promotion-focused advertisement with a picture and message leads to a tendency to invest in higher risk investment products, such as stocks. In contrast, exposure to a prevention-focused advertisement leads to a preference for safer investment products, such as fixed deposits. Nevertheless, the effect of the regulatory focus prime may be reduced when the visual cue is presented with detailed information about the product. This is due to the increase in cognitive effort required to process the information. Ewe *et al.* (2018) focused on how regulatory-focused stimuli influence consumer financial decision-making, which is concerned with personal decisions. This study, however, examines the influence of regulatory-focused stimuli on service providers' behavior that subsequently affects consumer financial decisions. This is an important extension of previous research because it highlights how priming and heuristics can affect investment advisers even though they are supposed to offer advice based on rational evaluation criteria.

There is evidence that regulatory focus affects a firm's risk attitude and corporate investment decisions (Lee, 2020). In addition, past studies (e.g., Scult *et al.*, 2017; Shah *et al.*, 1998) have suggested the existence of an association between regulatory focus and an incentive, that is, the match between the state of regulatory focus and a task-reward structure may improve an individual's performance of that particular task (Maddox *et al.*, 2010). The same incentive scheme, framed differently, may motivate employees differently depending on their motivational orientation. Therefore, the regulatory fit (non-fit) between a regulatory-focused prime and a performance incentive scheme may affect an investment adviser's recommending behavior.

Regulatory (non-)Fit

According to the concept of regulatory fit, an individual's motivational strength will be increased when the way they work toward a goal is congruent with their current state of regulatory focus (Higgins, 2000). Completing a goal that is congruent with one's regulatory orientation leads to a greater sense of commitment to the goal. In the consumer decision-making context, individuals usually respond more favorably when they view a message that is congruent with their regulatory focus (Avnet and Higgins, 2006). For instance, an individual in a state of promotion focus may find a promotion-focused message more persuasive than a prevention-focused message, while the reverse may hold true for an individual in a state of prevention focus. Recent literature also shows that regulatory non-fit may increase the cognitive effort required to process information and, thus, reduce the effect of the message on attitude (Fridman *et al.*, 2018). Regulatory fit has also been found to be associated with employee perceptions of procedural justice (Roczniewska *et al.*, 2018) and decision-making in an organizational context (Higgins and Pinelli, 2020).

There is a growing body of literature on the role of regulatory fit in individual decision-making using messages (e.g., Danielle *et al.*, 2014; Fridman *et al.*, 2018; Hong and Lee, 2008; Pham and Chang, 2010; Zhao and Pechmann, 2007) and nonverbal cues (Cesario and Higgins, 2008). Some studies (e.g., Chang and Lee, 2009; Wang and Dowding, 2010) have highlighted that a congruent message and image may ease information processing and enhance the effect of regulatory fit in the decision-making process. Individuals may evaluate alternatives more favorably when viewing an advertisement that is congruent with their regulatory orientation. However, Danielle *et al.* (2014) found that visual cues work better in a promotion-fit condition but not in a prevention-fit condition. This is because individuals in a prevention-fit state with a visual cue (e.g., an advertisement) might experience a negative effect. Therefore, more empirical evidence is needed regarding the influence of regulatory fit on the decision-making process.

Regulatory (non-)Fit and Message Framing

Message framing refers to the concept that a message can be framed either positively or negatively to influence behavior (Levin *et al.*, 1998). A positive-framed message highlights desired outcomes that can be achieved whereas a negative-framed message highlights undesired outcomes that can be avoided. Some researchers use the labels "gain frame" and "loss frame" to refer to the same idea of positive and negative frame (O'Keefe and Jensen, 2016). Message framing is generally manipulated to differentiate between the pleasures of commitment and the pains of non-commitment. Past studies (e.g., Cesario *et al.*, 2013; Yi and Baumgartner, 2009) have revealed that a positive-framed message is more effective for recipients in a promotion focus while a negative-framed message is more effective for recipients in a prevention focus. This is because an individual in a promotion focus situation is more concerned about growth-related outcomes and the positive-framed message induces a growth-related concern (a promotion concern) that fits the regulatory orientation (Spiegel *et al.*, 2004). In contrast, an individual in a prevention focus situation is more concerned about safety-related outcomes and the negative-framed message induces a safety concern (a prevention concern) that fits their regulatory orientation (Spiegel *et al.*, 2004). The regulatory fit between the state of regulatory focus and the message may enhance the persuasiveness of the message, whereas the regulatory non-fit may reduce it (Cesario and Higgins, 2008). There is still a need, however, to determine if regulatory fit has an influence on those who recommend investment options to others.

Hypotheses Development

The main objective of this study is to investigate the influence of regulatory-focused primes using visual and textual cues on investment advisers' recommending behavior. It also examines the role of regulatory fit in moderating the effect of regulatory-focused primes on investment advisers' recommending behavior.

Individuals may be primed with a temporary state of promotion or prevention focus when exposed to a stimulus containing a manipulated regulatory focus orientation (Van Dijk and Kluger, 2011; Zhou and Pham, 2004). Thereafter, they may have a more favorable attitude toward a product that is associated with their temporary regulatory focus orientation. This preference may induce individuals to subconsciously make biased decisions. Similar to consumers, investment advisers are also subject to priming and, thus, can also be manipulated. It is reasonable to believe that investment advisers, primed with either a promotion or prevention regulatory focus after viewing a regulatory-focused stimulus, may offer advice that is biased toward the manipulated prime and recommend investment options that fit their temporary state of regulatory focus. It is hypothesized that investment advisers who are exposed to a brochure containing a promotion-focused message (using visual and textual cues) are temporarily primed with a promotion focus and will become more sensitive to a higher gain and growth-related outcome, which then leads to a tendency to recommend an investment option with a higher potential gain that is also more risky. In contrast, when viewing a prevention-focused brochure, investment advisers may be temporarily primed with a prevention focus and will become more sensitive to losses and safety, leading to a tendency to recommend a safer option with a lower gain. This leads to the following hypotheses:

H1a: Investment advisers are likely to recommend a higher return prospect and higher risk investment plan after viewing a promotion-focused brochure

H1b: Investment advisers are likely to recommend a lower return prospect and lower risk investment plan after viewing a prevention-focused brochure.

In addition, when performing their duties, investment advisers may also be influenced by incentives related to their job performance. Shah *et al.* (1998) suggested that employees can be motivated to work toward an incentive if the incentive structure suits their motivational orientation. Additionally, the higher the regulatory fit between their regulatory focus and a performance incentive, the greater the effort they will invest in working toward the achievement of the performance incentive (Freitas and Higgins, 2002). Hence, there is a need to determine if regulatory fit moderates the effect of a regulatory focus prime on an investment adviser's recommending behavior when the message about a performance incentive scheme is framed differently. Since the match between the state of regulatory focus and the stimuli viewed may enhance the persuasiveness of the message (Cesario *et al.*, 2008), it is likely that investment advisers who are exposed to a match between the two and those who are not may behave differently, subsequently affecting their recommending behavior. Past studies (e.g., Cesario *et al.*, 2013; Yi and Baumgartner, 2009) suggested that a gain-framed message is congruent with a promotion focus, while a loss-framed message is congruent with a prevention focus. In the context of this study, the gain-framed message regarding the performance incentive scheme offers a possibility of gaining an extra 1% commission if the total investment amount of a certain investment plan exceeds the target for the month. In contrast, the loss-framed message regarding the performance incentive scheme offers a possibility of losing 1% commission if the total investment amount of a certain investment plan does not exceed the target for the month. It is hypothesized that the effect of a regulatory focus stimulus on investment advisers' recommending behavior remains strong when there is a match between the message framing of the performance incentive scheme and the regulatory-focused brochure. In contrast, the effect of a regulatory focus stimulus on investment advisers' recommending behavior may weaken due to regulatory non-fit when there is a mismatch between the message framing of the performance incentive scheme and the regulatory-focused brochure. This leads to the following hypotheses:

H2a: The effect of a regulatory-focused brochure on recommending behavior remains strong (weakens) when a promotion-focused stimulus is matched with a gain-framed (loss-framed) performance incentive scheme.

H2b: The effect of a regulatory-focused brochure on recommending behavior remains strong (weakens) when a prevention-focused stimulus is matched with a loss-framed (gain-framed) performance incentive scheme.

The conceptual framework is presented in Figure 1.

Insert Figure 1 about here

Overview of the Studies

The present research uses three experimental studies to address the research questions. Study 1 focuses on the main effect of a regulatory-focused prime (manipulated using a brochure) on investment advisers' recommending behavior. Study 2 examines the moderating role of regulatory fit that alters the effect of a regulatory-focused prime on an investment adviser's recommending behavior when a regulatory-focused prime is presented together with a performance incentive scheme. Study 3 aims to provide validation regarding the effect of a regulatory-focused prime on investment advisers' recommending behavior.

Pre-test and Pilot Study

A pre-test was conducted for each experiment to confirm the validity of the materials used in the main experiments. As the pictures used in this study were adopted from previous research that had confirmed the validity of the images, the pre-test focused on the design of the investment plans to ensure a significant difference in product features between Plan A and B. Five academics were consulted in the pre-test regarding their opinion on the manipulation of the investment plans. The majority agreed that Plan A and Plan B were significantly different. Thereafter, 60 and 40 participants were invited to participate in the pilot study for Study 1 and Study 2, respectively. As the preliminary findings of the pilot studies showed that the instruments were appropriate for testing the proposed hypotheses, the actual experiments followed the same settings used in the pilot studies. No pilot study was conducted for Study 3, as this study applied the same manipulation of investment plans as in Study 1.

Study 1

A three-condition (regulatory focus prime stimulus: promotion, prevention, control) experimental design was developed to investigate the hypotheses. The prime stimulus was designed as a brochure using a picture and text to manipulate the situational promotion or prevention regulatory focus of participants. Both the promotion- and prevention-focused pictures were adopted from Ewe *et al.* (2018). The promotion-focused picture showed a motivated executive with the message "I seize every opportunity to succeed," whereas the prevention-focused picture depicted a happy baby with his parents and a message of "My family's future is in my hands" (refer to Figure 2 and Figure 3). No picture or text was shown in the control condition. Two investment plans, Plan A and Plan B, were presented. Plan A described a newly launched plan with no past performance record but with a higher return potential. In contrast, Plan B described an established plan with a lower return potential but stable capital growth. It was predicted that, after viewing the promotion-focused brochure, the participants would prefer to recommend Plan A to their clients, as it is more congruent with a promotion focus, whereas after viewing the prevention-focused brochure, the participants would prefer to recommend Plan B to their clients, as it is more congruent with a prevention focus. In the control condition, the responses were expected to be close to neutral.

Insert Figure 2 about here

Insert Figure 3 about here

Participants

A total of 185 participants in Malaysia took part in this experiment. Of this number, 81 were working adults who were directly or indirectly involved in promoting financial products for their companies, while 104 were final year undergraduate students majoring in finance that could be viewed as potential investment advisers or financial planners. Overall, more females (54%) than males (46%) participated in this study. The participants were fairly allocated into promotion (60), prevention (65), and control (60) groups. The ages of the participants ranged from 21 to 55 years old, with an average age of 27. More than half of the participants reported that they were well-versed in investing money. Most of the student participants did not have investment experience, whereas almost all of the working adults had investment experience, with 21 of them reporting that they had more than five years of experience.

Experimental Procedure

In the main experiment, the participants were randomly assigned one of the manipulated conditions or the control condition. The experiment was performed on one participant at a time. A vignette was presented to those assigned to the manipulated conditions. The participants first viewed a brochure framed with either a promotion or prevention focus. They were then told to imagine themselves working as a financial service consultant for the NFP Bank, which uses the shown picture as the cover page of its business brochure to promote its investment plans. Thereafter, they were shown the following message: "Suppose you are asked to provide your recommendation to your potential client based on these two investment plans. To your knowledge, your potential client can accept the risk incurred in both investment plans. Take a look at both plans and indicate which investment plan you are more likely to recommend to your potential client." The participants were then shown the information about the two plans (refer to Table I).

Insert Table I about here

This information was followed by the display of the promotion-focused (prevention-focused) picture with the message in the promotion (prevention) condition. Participants assigned in the control condition only viewed the information about the two products without any picture or message. The participants were asked to indicate how likely they were to recommend Investment Plan A or B to their potential client by circling the appropriate number on a scale containing values from 1 (Plan A) to 7 (Plan B). Subsequently, the subjects were asked to provide their demographic details and information about their perceived financial knowledge and past investment experience.

Results

A manipulation check was performed on the regulatory-focused brochure and the manipulated investment plans. After viewing the brochure, the participants were asked to indicate their agreement with how much the brochure related to the following phrases on a scale from 1 (strongly disagree) to 7 (strongly agree). The first phrase was: “duty and responsibility to family,” and the second phrase was “wish to achieve success.” The results showed a significant difference between the mean scores of the participants assigned the promotion condition and those assigned the prevention condition for both stimuli. The promotion-focused brochure was viewed as being more concerned with “wish to achieve success” than “duty and responsibility to family” in the promotion condition (M_{prom} = 6.32 vs M_{prev} = 3.47, $p < 0.001$). In contrast, the prevention-focused brochure was viewed as being more concerned with “duty and responsibility to family” than “wish to achieve success” in the prevention group (M_{prom} = 4.32 vs M_{prev} = 6.17, $p < 0.001$). This implies that both pictures and messages used in the brochures successfully primed their respective concerns.

A manipulation check was also conducted on the riskiness of the investment plans. The subjects were asked to rate the perceived riskiness of the investment options on an 11-point scale with values ranging from 0 (not at all risky) to 10 (very risky). The subjects reported the riskiness of Plan A as being much higher than Plan B ($M_{\text{Plan A}}$ = 7.17, *SD* = 1.537; $M_{\text{Plan B}}$ = 3.24, *SD* = 1.580, $p < .001$). This indicates that the riskiness of the investment options was well interpreted by the participants.

An ANOVA was conducted to test the hypothesis of the present study (refer to Figure 4). Before running the ANOVA, a regression analysis was conducted to test whether any demographic factor had a significant effect on investment advisers’ recommending behavior.

The result shows that demographics had no significant effect on the dependent variable. The ANOVA results show a significant main effect of a regulatory-focused brochure on investment advisers' recommending behavior (F = 19.402, p < 0.001, partial η^2 = 0.177). A post hoc test was also conducted to find out more about the difference between the manipulated conditions. The post hoc results show that there is a significant difference between the promotion and prevention group (M_{Prom} = 3.12 vs. M_{Prev} = 5.03, p < 0.001), and also the promotion and control group (M_{Prom} = 3.12 vs. $M_{control}$ = 4.33, p < 0.001). However, the difference between the prevention and control groups is only marginally significant (M_{Prev} = 5.03 vs. $M_{control}$ = 4.33, p = 0.066). The results further support the notion that the promotion-focused (prevention-focused) picture may induce investment advisers to recommend an investment plan with a higher return potential (stable capital growth) to their clients. For those assigned the control condition, the participants were free to indicate their preference of investment plan. The result indicates that individuals are more risk averse in nature. Hence, Hypotheses 1a and 1b are supported.

Insert Figure 4 about here

Discussion

Study 1 provides initial support for the proposition that an investment adviser's recommending behavior may be influenced by a situational regulatory focus induced through priming. The findings provide further evidence of the influence of picture-message framing on choice evaluation. While past studies revealed that consumers may be influenced by a regulatory-focused advertisement when making investment decisions, investment advisers or financial planners may also be influenced by regulatory-focused stimuli when performing their job and recommending investment options. This highlights the importance of visual and textual cues when designing business or investment brochures because of the possibility that both investors and investment advisers will choose investment options that are congruent with the picture-message prime.

Nevertheless, investment advisers providing advice to potential investors may also be influenced by performance incentives provided by their organizations. It would be interesting to determine if performance incentive schemes influence advisers' investment advice when they are exposed to a prime and the same brochure. Study 2 investigates whether a regulatory fit between the stimuli and the performance incentive scheme moderates the impact of a regulatory-focused stimulus on investment advisers' recommending behavior.

Study 2

A 2 (regulatory focus brochure: promotion vs. prevention) x 2 (performance incentive scheme: gain vs. loss frame) between-subjects design was developed to investigate the hypotheses. The regulatory-focused brochures used in this study were the same as those used in the first study. The two investment plans presented, Plan A and Plan B, were also the same as in the first study. The only new piece of information in this study was information about the performance incentive scheme. Two performance incentive schemes were described: one had a gain-framed message while the other had a loss-framed message.

Participants

A total of 183 participants took part in this study. Of these, 81.4% were bankers who directly or indirectly promoted their bank's financial products, while the rest were university academics, or undergraduates who were either currently enrolled in or had previously enrolled in at least one finance subject. The sample was 53.6% female and 46.4% male in composition. The participants were randomly allocated to one of the four manipulated groups: promotion-promotion (44), promotion-prevention (48), prevention-promotion (44), and prevention-prevention (47) group. Participants ranged from 20 to 55 years old, with an average age of 40.6. About 63.4% of participants reported that they were well-versed in investing money, and 73.8% reported having at least one year of investment experience, with about half of these reporting they had more than five years of experience.

Experimental Procedure

In the actual experiment, participants were randomly assigned one of the four manipulated conditions. Two groups of participants were exposed to the promotion-focused brochure and two were exposed to the prevention-focused brochure. The first manipulated group received a questionnaire that contained the promotion-focused brochure, and the following gain-framed message: "Assume that you will receive 2.5% of the total investment amount for your recommendation, and you have a chance to gain an extra 1% commission if the total investment amount of Plan A exceeds RM 1 million for the month." The second manipulated group received a questionnaire that contained the promotion-focused brochure, and the following loss-framed message: "Assume that you will receive 3.5% of the total investment amount for your recommendation, and it is possible for you to lose 1% commission if the total investment amount of Plan A does not exceed RM 1 million for the month." The third manipulated group received a questionnaire that contained the prevention-focused brochure, and the following gain-framed message: "Assume that you will receive 2.5% of the total investment amount for your recommendation, and you have a chance to gain an extra 1% commission if the total investment amount of Plan B exceeds RM 1 million for the month." Lastly, the fourth manipulated group received a questionnaire that contained the prevention-focused brochure, and the following loss-framed message: "Assume that you will receive

3.5% of the total investment amount for your recommendation, and it is possible for you to lose 1% commission if the total investment amount of Plan B does not exceed RM 1 million for the month." The first two manipulated conditions mentioned Plan A and the second manipulated conditions mentioned Plan B because Plan A is more congruent with a promotion-focused prime and Plan B is more congruent with a prevention-focused prime. The difference between the first (third) and second (fourth) manipulated conditions is the gain-framed message and loss-framed message.

The participants were asked to read the vignette used in this study. The first part of the questionnaire was similar to the one used in Study 1. For instance, participants were instructed to assume that they were a financial services consultant for NFP Bank and they were asked to provide a recommendation to their potential client based on two investment plans. The investment plans were the same as in Study 1: Plan A represented a riskier option, and Plan B represented a more conservative option. The regulatory-focused picture with message was presented below the two plans, followed by a gain- or loss-framed message describing the performance incentive scheme. Thereafter, the participants were asked to indicate how likely they were to recommend Plan A or B to their potential client by circling the appropriate number on a scale containing values from 1 (Plan A) to 7 (Plan B). Upon completing this, the subjects were asked in the subsequent part of the questionnaire to provide their demographic information and details about their perceived financial knowledge and past investment experience.

Results

In this study, a manipulation check was conducted to check the riskiness of the investment plans. The participants were asked to rate the perceived riskiness of the investment options on an 11-point scale with values ranging from 0 (not at all risky) to 10 (very risky). Similar to Study 1, the participants in Study 2 also viewed Plan A as riskier than Plan B ($M_{\text{PlanA}} = 7.44$, $SD = 1.353$; $M_{\text{PlanB}} = 3.44$, SD = 1.612, $p < .001$). This indicates that the riskiness of the investment options was well interpreted by the participants.

An ANOVA was performed to assess the moderating effect of regulatory fit on recommending behavior. Similar to Study 1, a regression was conducted before performing the ANOVA to determine if demographic factors had a significant effect on investment advisers' recommending behavior. As gender was found to have a significant influence on the recommending behavior, the variable was controlled when running the ANOVA. The results show a significant main effect of the combined stimuli on recommending behavior regarding investment plans ($F = 5.087$, $p < 0.01$; $M_{prom\_prom} = 4.20$, $M_{prom\_prev} = 4.58$, $M_{prev\_prom} = 4.95$, $M_{prev\_prev} = 5.28$). Overall, the results show that all mean scores support a recommendation for more stable capital growth but with a lower potential investment return, as the mean scores for all conditions were above the mid-point (4). However, differences in mean scores are still found among the four conditions. A multiple group comparison conducted to further analyze the differences among the conditions shows a significant difference in mean score between the promotion-gain framed condition and the prevention-loss framed condition ($p < 0.01$) that is not found for the rest of the comparisons (Table II). The findings suggest that if a prevention-focused prime is matched with a loss-framed performance incentive scheme, the tendency will be skewed towards recommending the investment plan with more stable capital growth but lower return potential. In contrast, if a promotion-focused prime is matched with a gain-framed performance incentive scheme, the preference would be closer to an investment plan with a higher return potential but with a higher risk. In between these two extremes, if a regulatory-focused prime is matched with a performance incentive scheme that is not aligned (regulatory non-fit), such as a promotion-focused (prevention-focused) prime with a loss-framed (gain-framed) incentive scheme, then the effect of the regulatory focus stimuli on recommending behavior is reduced. Therefore, Hypotheses H2a and H2b are supported.

Insert Table II about here

Discussion

Study 1 provides initial support for the notion that a regulatory-focused brochure may influence investment advisers' recommending behavior regarding investment choice. Study 2 provides additional evidence that when a regulatory-focused brochure is used together with a performance incentive scheme, crossed matching of the regulatory focused stimuli (promotion_loss-framed and prevention_gain-framed) will most likely reduce the impact of the regulatory-focused brochure on the recommending behavior. In other words, the regulatory non-fit may reduce the cognitive bias caused by a regulatory-focused prime.

Study 3

The purpose of Study 3 was to validate the findings of Study 1 relating to the role of regulatory focus on investment advisers' recommending behavior. Study 1 provided initial support for the impact of regulatory focus visual and textual cues. However, the sample used in Study 1 was comprised of real investment advisers and potential investment advisers (students enrolled in Finance courses). It was crucial to validate Study 1's findings by conducting the experiment with real investment advisers, whose main role is to recommend investment plans to consumer investors. Therefore, Study 3 was designed to provide further validation of the direct effect of the role of a regulatory focused prime (i.e., a promotion vs. prevention focus) on investment advisers' recommending behavior.

Participants

This experiment was conducted in Malaysia with 100 unit trust consultants whose role is to advise clients on alternative investment plans. Overall, more females (67%) than males (33%) participated in this study. There were 48 and 52 participants in the promotion and prevention groups, respectively. The participants ranged from 22 to 60 years old, with an average age of 37. In terms of work experience, 44% of participants had more than five years' experience in their current role as an investment adviser, 45% had experience of one to five years, and 11% had less than one year of experience. Overall, 85% of participants reported that they were well-versed in investing money while the remainder reported "undecided," indicating they might not have been clear as to what constitutes being "well-versed" in investing money. All participants had personal investment experience, with 54% reporting that they had more than five years of personal investment experience.

Experimental Procedure

Since data collection for Study 3 occurred during the Covid-19 pandemic, the experiment was performed online, and participants were asked to complete an online questionnaire instead of the hard copy used in Study 1. In the online experiment, the participants were randomly assigned to one of the manipulated conditions. The experiment was performed on one participant at a time. At the beginning of the experiment, the same scenario used in Study 1 was shown to the participants (i.e., they viewed the brochure framed with either a promotion- or prevention-focused prime). They were told to imagine themselves working as a financial service consultant for the NFP Bank, and were asked to indicate the likelihood that they would recommend Investment Plan A or B to their potential clients by circling the appropriate number on a scale containing values from 1 (Plan A) to 7 (Plan B).

Thereafter, the realism of the scenario used in the experiment was examined using the following questions: 1) “In general, do the brochures for the investment products of your company contain picture(s)?”; 2) “How often do you look at the brochure for investment products before/when providing your recommendation to your clients?”; 3) “How important is it for you to see a brochure of investment products, as an investment adviser, when providing advice to your clients?”; and 4) “To what extent do you think the scenario stated in this section could happen in your role as an investment adviser?”

Following this, the participants were asked to provide their demographic details and information about their perceived knowledge of investing money, and about their past investment experience. As the data collection was conducted during the Covid-19 pandemic, the extent of the impact of Covid-19 on the participant’s job was also measured as a control variable in the experiment.

Results

Similar to Study 1, a manipulation check was performed on the regulatory-focused brochure and the manipulated investment plans. A paired sample t-test showed that in the promotion (prevention) condition, participants felt that the promotion (prevention) picture conveyed the message “wish to achieve success” more (less) than “duty and responsibility to family” (promotion condition: $M_{prom} = 4.92$ vs $M_{prev} = 3.96$, $p < 0.01$; prevention condition: $M_{prom} = 5.54$ vs $M_{prev} = 5.92$, $p < 0.01$). This implies that both pictures and messages used in the brochures successfully primed their respective concerns. A manipulation check was also conducted on the riskiness of the investment plans. The result is consistent with that of Study

1, which showed that Plan A is riskier than Plan B ($M_{\text{Plan A}} = 8.05$, $SD = 1.445$; $M_{\text{Plan B}} = 4.68$, $SD = 1.663$, $p < .001$).

In terms of their companies' brochures, 79% of participants reported that their own company's brochures for investment products contain picture(s). In addition, 32% of participants revealed that they referred to the brochures every time they advised their clients, while 35% of participants often looked at investment product brochures before or when they provided their recommendation to clients. Investment plan brochures are perceived as important materials to the investment advisers ($M = 5.35$, on a scale from 1(Not important at all) to 7(Very important)), and the investment advisers perceived the scenario in the experiment as realistic ($M = 5.29$, on a scale from 1 (Not at all) to 7 (very realistic)). This indicates that the manipulations used in the experiment were suitable to and realistic in the real business environment.

An ANOVA was conducted to test the hypotheses of the present study. Before running the ANOVA, the demographic factors were tested for any possible effect on recommending behavior. None of the demographic variables by themselves were found to have a significant impact on recommending behavior. However, when the ANOVA was run on gender and work experience, an interaction was found between gender and work experience ($F = 3.626$, $p < 0.05$). Therefore, these two variables were controlled as covariates in the hypothesis testing. In addition, the impact of Covid-19 was found to have a significant impact on recommending behavior ($t = 2.206$, $p < 0.05$). Hence, this variable was also added as a covariate in the analysis. The ANOVA results show that a regulatory-focused brochure has a significant main effect on investment advisers' recommending behavior ($M_{\text{Prom}} = 3.79$, $SD = 1.913$; $M_{\text{Prev}} = 4.73$, $SD = 1.962$; $F = 7.332$, $p < 0.01$, partial $\eta^2 = 0.072$). The findings support the proposition that a prime using visual and textual cues may influence investment advisers' recommendation, such that, those exposed to promotion-focused (prevention-focused) primes are more likely to recommend investment plans with higher return potential (stable capital growth). Therefore, Hypotheses 1a and 1b are further supported.

Discussion

Study 1 provided initial support to the notion that an investment adviser's recommending behavior may be influenced by situational regulatory focus through priming, Study 3 validates the influence of regulatory focus stimuli on an investment adviser's recommending behavior. The results highlight the need to consider the importance of visual and textual cues when designing investment brochures due to the possible impact of such cues on the decision-making of both investors (Ewe *et al.*, 2018) and investment advisers.

General Discussion

This research demonstrates how an investment adviser may be influenced by regulatory focused stimuli when advising potential investors. The tendency to use heuristics when making decisions is common, especially when decisions involve the use of judgment with uncertainty (Mishra, 2014; Tversky and Kahneman, 1974). In consumer behavior research, the similar congruence effects of promotion-gain frame and prevention-loss frame manipulations on consumer reactions have been documented (Cesario *et al.*, 2013; Spiegel *et al.*, 2004). This study's findings are consistent with past studies that showed visual and message cues that are congruent with each other may affect decision-making (e.g., Ewe *et al.*, 2018). While Ewe *et al.* (2018) revealed that regulatory focused stimuli may influence consumers who invest using their own money, this study is novel and important because it highlights that investment advisers can be influenced by regulatory focus primes and may recommend an investment option that is contrary to their clients' risk profile.

Study 1 and Study 3 highlight the importance of picture and message selection for use in business or investment brochures because of its potential to influence investment advisers' behavior when performing their job. Study 2 suggests that if the reward structure involves a performance incentive scheme, the framing of the incentive scheme may also affect the strength of the influence of regulatory-focused stimuli on an investment adviser's recommending behavior. A matched regulatory-focused stimulus and incentive scheme induces regulatory fit and maintains the influence of the stimulus, whereas a non-matched regulatory-focused stimulus and incentive scheme causes regulatory non-fit and reduces the influence of the stimulus.

This research suggests that regulatory-focused stimuli may trigger the automatic use of heuristics when investment advisers provide their recommendations. Ideally, investment advisers would recommend suitable financial products based on the needs and risk appetite of their clients. However, in view of the wide range of investment options available in the market and the possibility of information overload, investment advisers may use heuristics when providing recommendations (Kida, Moreno and Smith, 2010), especially when their clients are willing to accept the risk associated with both risky and conservative investment plans. Under this condition, the pictures and messages contained in investment product brochures may influence them when providing recommendations to clients.

While investment advisers are expected to be professional and not be biased by their own predispositions, their investment advice may sometimes be unintentionally compromised through priming. This is because investment advisers are also subject to the influence of heuristics and priming. This current research also found no difference between experts and students in their reactions when exposed to the same stimuli. This finding is consistent with Northcraft and Neale (1987) on price estimation in the real estate industry.

The results of this research indicate that the impact of visual and textual cues may be reduced when more elements are added to the scenario. For instance, when a performance incentive scheme in the form of a sales commission was included for consideration, the framing of the scheme reduced the strength of the influence of the regulatory-focused stimuli on the investment adviser’s recommending behavior. Regulatory-focused stimuli and performance incentives that are matched may be useful to motivate investment advisers to promote certain investment plans. On the other hand, regulatory non-fit may help to reduce the intensity of cognitive bias caused by the regulatory-focused brochure. The results suggest that it may be worthwhile to avoid including promotion- or prevention-focused framed messages when designing investment brochures to lower the possibility of unintentionally biasing investment advice.

This finding enhances the literature on information processing and the priming effect of images and information that professionals view when they search for information to be used in decision-making. The findings suggest that investment advisers should be cognizant of the influence of visual cues and advertising messages they view prior to giving advice to clients, and to take care when recommending investment options. They should make a concerted effort to be more neutral and consider other relevant factors, such as the level of risk that their clients are willing to tolerate and the preferences of their clients, when recommending investment options. Bank managers involved in staff performance reward systems need to be aware of the influence of a regulatory (non)-fit between the information provided and the performance incentive on investment advisers' recommending behavior.

Limitations and Future Research

Although the present research contributes to the growing body of regulatory focus and decision-making literature, it has several limitations that are worth addressing in future research. First, this research focuses on only two categories of financial products: a high potential growth investment plan, and a more stable investment plan. While it was important to limit the conditions used in this experimental research, financial product offerings in the real world are more abundant and may be more complicated. Therefore, there is still a need to examine the impact of regulatory-focused stimuli on product categories with different levels of risk, or on other investment opportunities.

In addition, the results of this research demonstrate how investment advisers can be influenced by regulatory-focused stimuli even if they are only exposed to one brochure at a time. In real business practice, however, investment advisers may use a number of brochures at the same time when giving advice to their clients. Thus, the findings may not be generalizable to investment advisers who use multiple brochures describing various investment plans. Therefore, there is still a need to investigate how regulatory-focused stimuli affect investment advisers' recommending behavior when used together with other advertising materials in the process of giving advice. In addition, investment advisers' recommending behavior may also be influenced by the sequence of the materials (such as first page, middle page or last page) of the brochure(s) they consult. Therefore, future research may explore questions regarding when and where the regulatory-focused primes are placed in a message to have the strongest effect on recommending behavior.

Furthermore, this research used a hypothetical vignette in the experiment, as it is not feasible to manipulate the information in a real-world context. Despite this limitation, the results still show the influence of a regulatory-focused prime and regulatory fit, and how their effects may be mitigated when there is a mismatch between regulatory-focused stimuli and message framing.

This research did not investigate the role of chronic regulatory focus on recommending behavior and the interpersonal regulatory fit between investment advisers and their clients. The findings only highlight the investment advisers' recommending behavior after exposure to the stimuli. Future research may examine the role of personalities, such as chronic regulatory focus, in the behavior of service providers. Following the study of Shin *et al.*, (2017), which found significant effects of interpersonal regulatory fit on followers' behavior in an organizational context, it may also be worthwhile examining if interpersonal regulatory fit plays an important role in the context of this research.

Future research may also look at the interaction between regulatory-focused stimuli and the duration of the exposure to the stimuli. In carrying out their duties, investment advisers may be exposed to a product brochure many times over a period of time. The effect of the duration of this exposure may moderate the influence of the stimuli is still unknown. Furthermore, this research may be extended to investigate the influence of regulatory-focused stimuli and regulatory fit on individuals in other occupations, such as estate planners, financial planners, and even physicians.

References:

Aaker, J. L. and Williams, P. (1998) ‘Empathy Versus Pride: The Influence of Emotional Appeals Across Cultures’, *The Journal of Consumer Research*, 25(3), pp. 241–261.

Adams, L., Faseur, T. and Geuens, M. (2011) ‘The Influence of the Self-Regulatory Focus on the Effectiveness of Stop-Smoking Campaigns for Young Smokers’, *Journal of Consumer Affairs*, 45(2), pp. 275–305. doi: 10.1111/j.1745-6606.2011.01203.x.

AKPK (2019) *Vital to Strengthen Financial Literacy, say Experts, AKPK*. Available at: https://www.akpk.org.my/news/1315-vital-strengthen-financial-literacy-say-experts (Accessed: 28 July 2020).

Avnet, T. and Higgins, E. T. (2006) ‘How Regulatory Fit Affects Value in Consumer Choices and Opinions’, *Journal of Marketing Research*, XLIII(February), pp. 1–10.

Briley, D. A., Morris, M. W. and Simonson, I. (2000) ‘Reasons as Carriers of Culture: Dynamic versus Dispositional Models of Cultural Influence on Decision Making’, *Journal of Consumer Research*, 27(September), pp. 157–178. doi: 10.1086/314318.

Cesario, J., Corker, K. S. and Jelinek, S. (2013) ‘A self-regulatory framework for message framing’, *Journal of Experimental Social Psychology*. Elsevier Inc., 49(2), pp. 238–249. doi: 10.1016/j.jesp.2012.10.014.

Cesario, J. and Higgins, E. T. (2008) ‘Making Message Recipients ‘‘ Feel Right ’ ’ How Nonverbal Cues Can Increase Persuasion’, *Psychological Science*, 19(5), pp. 415–420.

Cesario, J., Higgins, E. T. and Scholer, A. A. (2008) ‘Regulatory Fit and Persuasion: Basic Principles and Remaining Questions’, *Social and Personality Psychology Compass*, 2(1), pp. 444–463.

Chang, C. T. and Lee, Y. K. (2009) ‘Framing Charity Advertising : Influences of Message Framing , Image Valence , and Temporal Framing on a Charitable Appeal’, *Journal of Applied Social Psychology*, 39(12), pp. 2910–2935.

Cropanzano, R. *et al.* (2008) ‘How regulatory focus impacts the process-by-outcome interaction for perceived fairness and emotions’, *Organizational Behavior and Human Decision Processes*, 105, pp. 36–51. doi: 10.1016/j.obhdp.2006.06.003.

Danielle, M., Deborah, T. and Paulo, P. (2014) ‘The Influence of Visual Art and Regulatory (Non) Fit on Product and Advertisement Evaluation’, *Advances in Consumer Research*, 42, p. 799.

Van Dijk, D. and Kluger, A. N. (2011) ‘Task Type as a Moderator of Positive / Negative Feedback Effects on Motivation and Performance : A Regulatory Focus Perspective’, *Journal of Organizational Behavior*, 32, pp. 1084–1105. doi: 10.1002/job.

Ewe, S. Y., Gul, A. F., Lee, C. K. C., Yang, C. Y. (2018) ‘The Role of Regulatory Focus and Information in Investment Choice: Some Evidence Using Visual Cues to Frame Regulatory Focus’, *Journal of Behavioral Finance*, 19(1), pp. 89–100. doi: 10.1080/15427560.2017.1373283.

FIMM (2020) *Nationwide Survey Report*.

Freitas, A. L. and Higgins, E. T. (2002) ‘Enjoying Goal-Directed Action: The Role of Regulatory Fit’, *Psychological Science*, 13(1), pp. 1–6.

Fridman, I., Ubel, P. A. and Higgins, E. T. (2018) ‘Eye-tracking Evidence Shows that Non-fit Messaging Impacts Attention, Attitudes and Choice’, *Plos One*, 13(10), pp. 1–18. doi: 10.1371/journal.pone.0205993.

Frumento, A. J. and Korenman, S. (2013) ‘Professionalism and Investment Advisers’, *Journal of Investment Compliance*, 14(1), pp. 32–41. doi: 10.1108/15285811311321242.

Gardner, W. L., Gabriel, S. and Lee, A. Y. (1999) ‘“I” Value Freedom, but “We” Value Relationships: Self-Construal Priming Mirrors Cultural Differences in Judgment’, *Psychological Science*, 10(4), pp. 321–326.

Gilovich, T., Griffin, D. W. and Kahneman, D. (2002) *Heuristics and Biases : the Psychology* *of Intuitive Judgement*. Cambridge, U.K: Cambridge University Press.

Guiso, L. and Viviano, E. (2015) 'How Much can Financial Literacy Help?', *Review of Finance*, 19(4), pp. 1347–1382. doi: 10.1093/rof/rfu033.

Higgins, E. T. (1997) 'Beyond pleasure and pain', *The American psychologist*, 52(12), pp. 1280–1300. Available at: http://www.ncbi.nlm.nih.gov/pubmed/9414606.

Higgins, E. T. (1998) 'Promotion and Prevention: Regulatory Focus as a Motivational Principle', *Advances in Experimental Social Psychology*, 30, pp. 1–45.

Higgins, E. T. (2000) 'Making a Good Decision: Value from Fit', *American Psychologist*, 30(November), pp. 1217–1230.

Higgins, E. T. (2002) 'How Self-Regulation Creates Distinct Values: The Case of Promotion and Prevention Decision Making', *Journal of Consumer Psychology*, 12(3), pp. 177–191. doi: 10.1207/S15327663JCP1203_01.

Higgins, E. T. and Pinelli, F. (2020) 'Regulatory Focus and Fit Effects in Organizations', *Annual Review of Organizational Psychology and Organizational Behavior*, 7, pp. 25–48. doi: 10.1146/annurev-orgpsych-012119-045404.

Hong, J. and Lee, A. Y. (2008) 'Be Fit and Be Strong : Mastering Self-Regulation through Regulatory Fit', *Journal of Consumer Research*, 34(5), pp. 682–695. doi: 10.1086/521902.

Hong, Y. *et al.* (2000) 'Multicultural Minds: A Dynamic Constructivist Approach to Culture and Cognition', *American Psychologist*, 55, pp. 709–720.

Kahneman, D. (2011) *Thinking, Fast and Slow*. New York: Farrar, Straus and Giroux.

Kida, T., Moreno, K. K. and Smith, J. F. (2010) 'Investment Decision Making: Do Experienced Decision Makers Fall Prey to the Paradox of Choice?', *Journal of Behavioral Finance*, 11(1), pp. 21–30. doi: 10.1080/15427561003590001.

Lee, S. (2020) 'Regulatory Focus and Corporate Investment', *Journal of Neuroscience, Psychology, and Economics*, 13(2), pp. 84–99. doi: 10.1037/npe0000128.

Levin, I. P., Schneider, S. L. and Gaeth, G. J. (1998) ‘All Frames Are Not Created Equal : A Typology and Critical Analysis of Framing Effects’, *Organizational Behavior and Human Decision Processes*. Academic Press, 76(2), pp. 149–188. doi: 10.1006/obhd.1998.2804.

Maddox, W. T. *et al.* (2010) ‘Regulatory Match Effects on a Modified Wisconsin Card Sort Task’, *Journal of the International Neuropsychological Society*, 16, pp. 352–359. doi: 10.1017/S1355617709991408.

Mishra, S. (2014) ‘Decision-Making Under Risk: Integrating Perspectives From Biology, Economics, and Psychology’, *Personality and Social Psychology Review*, 18(3), pp. 280–307. doi: 10.1177/1088868314530517.

Northcraft, G. B. and Neale, M. A. (1987) ‘Experts, Amateurs, and Real Estate: An Anchoring-and-Adjustment Perspective on Property Pricing Decisions’, *Organizational Behavior and Human Decision Processes*, 39(1), pp. 84–97. doi: 10.1016/0749-5978(87)90046-X.

O’Keefe, D. J. and Jensen, J. D. (2016) ‘The Advantages of Compliance or the Disadvantages of Noncompliance ? A Meta-Analytic Review of the Relative Persuasive Effectiveness of Gain-Framed and Loss-Framed Messages The Advantages of Compliance or the Disadvantages of Noncompliance ? A Meta-Analyt’, *Annals of the International Communication Association*, 30, pp. 1–43. doi: 10.1080/23808985.2006.11679054.

Pham, M. T. and Chang, H. H. (2010) ‘Regulatory Focus, Regulatory Fit, and the Search and Consideration of Choice Alternatives’, *Journal of Consumer Research*, 37(4), pp. 626–640. doi: 10.1086/655668.

Roczniewska, M., Retowski, S. and Higgins, E. (2018) ‘How Person-organization Fit Impacts Employees’ Perceptions of Justice and Well-being’, *Frontiers in Psychology*, 8, pp. 1–17. doi: 10.3389/fpsyg.2017.02318.

SC (2019) *Annual Report*. Available at:

https://www.rtda.gov.rw/fileadmin/templates/documents/Annual_Report_2017_2018_FINAL.pdf;

Scholer, A. A. and Higgins, E. T. (2013) 'Dodging Monsters and Dancing with Dreams: Success and Failure at Different Levels of Approach and Avoidance', *Emotion Review*, 5(3), pp. 254–258.

Scult, M. A., Knodt, A. R., Hanson, J. L., Ryoo, M., Adcock, R. Alison, H., Ahmad R., Strauman, T. J. (2017) 'Individual Differences in Regulatory Focus Predict Neural Response to Reward', *Social Neuroscience*. Routledge, 12(4), pp. 419–429. doi: 10.1080/17470919.2016.1178170.

Semin, G. R. , Higgins, T., de Montes, L. G., Estourget, Y. V., Jose F. (2005) 'Linguistic signatures of regulatory focus: how abstraction fits promotion more than prevention.', *Journal of personality and social psychology*, 89(1), pp. 36–45. doi: 10.1037/0022-3514.89.1.36.

Shah, J., Higgins, E. T. and Friedman, R. S. (1998) 'Performance incentives and means: how regulatory focus influences goal attainment.', *Journal of personality and social psychology*, 74(2), pp. 285–293. Available at: http://www.ncbi.nlm.nih.gov/pubmed/9491583.

Song, J. and Qu, H. (2019) 'How Does Consumer Regulatory Focus Impact Perceived Value and Consumption Emotions?', *International Journal of Contemporary Hospitality Management*, 31(1), pp. 285–308. doi: 10.1108/IJCHM-03-2017-0136.

Spiegel, S., Grant-Pillow, H. and Higgins, E. T. (2004) 'How regulatory fit enhances motivational strength during goal pursuit', *European Journal of Social Psychology*, 34(1), pp. 39–54. doi: 10.1002/ejsp.180.

Tversky, A. and Kahneman, D. (1974) 'Judgment under Uncertainty: Heuristics and Biases.', *Science (New York, N.Y.)*, 185(4157), pp. 1124–1131. doi: 10.1126/science.185.4157.1124.

Wang, A. and Dowding, T. (2010) 'Effects of Visual Priming on Improving Web Disclosure to Investors’, *Journal of Behavioral Finance*, 11(1), pp. 11–20. doi: 10.1080/15427561003590159.

Wang, J. and Lee, A. Y. (2006) ‘The Role of Regulatory Focus in Preference Construction’, *Journal of Marketing Research*, XLIII(February), pp. 28–38.

Wirig, M. T. and Poorbaugh, K. S. (2017) ‘The SEC Provides New Custody Rule Guidance to Investment Advisers’, *Journal of Investment Compliance*, 18(2), pp. 9–12. doi: 10.1108/joic-04-2017-0021.

Yi, S. and Baumgartner, H. (2009) ‘Regulatory focus and message framing: A test of three accounts’, *Motivation and Emotion*, 33(4), pp. 435–443.

Zhao, G. and Pechmann, C. (2007) ‘The Impact of Regulatory Focus on Adolescents’ Response to Antismoking Advertising Campaigns’, *Journal of Marketing Research*, 44(4), pp. 671–687. doi: 10.1509/jmkr.44.4.671.

Zhou, R. and Pham, M. T. (2004) ‘Promotion and Prevention across Mental Accounts: When Financial Products Dictate Consumers ’ Investment Goals’, *Journal of Consumer Research*, 31(1), pp. 125–135.

Zou, X., Scholer, A. A. and Higgins, E. T. (2014) ‘In Pursuit of Progress: Promotion Motivation and Risk Preference in the Domain of Gains’, *Journal of personality and social psychology*, 106(2), pp. 183–201. doi: 10.1037/a0035391.

Table I: Description of the Investment Plans

Investment Plan A	Investment Plan B
• **Newly** launched • Past performance – No record • Forecast of return – **12%** per annum • **To achieve a higher level of capital appreciation**	• Launched in **2001** • Past 3-year performance – Average annual return of **6%** • **To provide stable capital growth**

Table II: Multiple Comparison Among Four Conditions (Study 2)

Dependent Variable: Recommending Preference

Tukey HSD

(I) Prom/Prev picture	(J) Prom/Prev picture	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound	Upper Bound
A-Prom_Prom_A_1%	B-Prom_Prev_A_1%	-.38	.327	.654	-1.23	.47
	C-Prev_Prom_B_1%	-.75	.334	.116	-1.62	.12
	D-Prev_Prev_B_1%	-1.07*	.329	.007	-1.93	-.22
B-Prom_Prev_A_1%	A-Prom_Prom_A_1%	.38	.327	.654	-.47	1.23
	C-Prev_Prom_B_1%	-.37	.327	.669	-1.22	.48
	D-Prev_Prev_B_1%	-.69	.322	.140	-1.53	.14
C-Prev_Prom_B_1%	A-Prom_Prom_A_1%	.75	.334	.116	-.12	1.62
	B-Prom_Prev_A_1%	.37	.327	.669	-.48	1.22
	D-Prev_Prev_B_1%	-.32	.329	.762	-1.18	.53
D-Prev_Prev_B_1%	A-Prom_Prom_A_1%	1.07*	.329	.007	.22	1.93
	B-Prom_Prev_A_1%	.69	.322	.140	-.14	1.53
	C-Prev_Prom_B_1%	.32	.329	.762	-.53	1.18

Based on observed means.

The error term is Mean Square (Error) = 2.459.

*. The mean difference is significant at the .05 level.

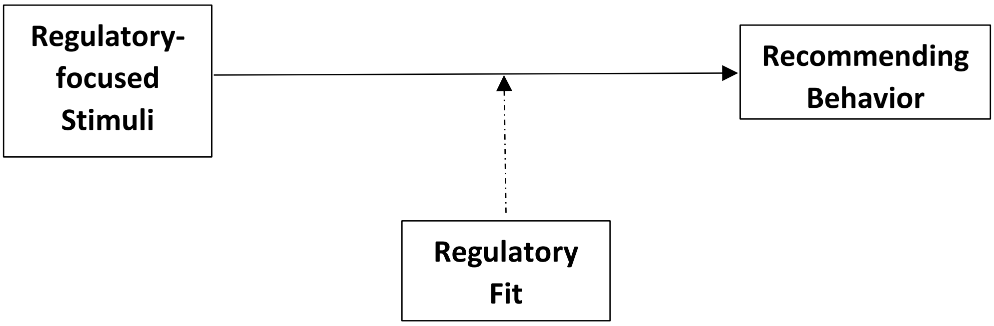

Figure 1: Conceptual Framework

Investment Plan A	Investment Plan B
• **Newly** launched • Past performance – No record • Forecast of return – **12%** per annum • **To achieve a higher level of capital appreciation**	• Launched in **2001** • Past 3-year performance – Average annual return of **6%** • **To provide stable capital growth**

NFP Bank *Financial Service and Banking*

Figure 2: Promotion-focused Stimulus Used in the Investment Plan Brochure

Investment Plan A	Investment Plan B
• **Newly** launched • Past performance – No record • Forecast of return – **12%** per annum • **To achieve a higher level of capital appreciation**	• Launched in **2001** • Past 3-year performance – Average annual return of **6%** • **To provide stable capital growth**

NFP Bank *Financial Service and Banking*

Figure 3: Prevention-focused Stimulus Used in the Investment Plan Brochure

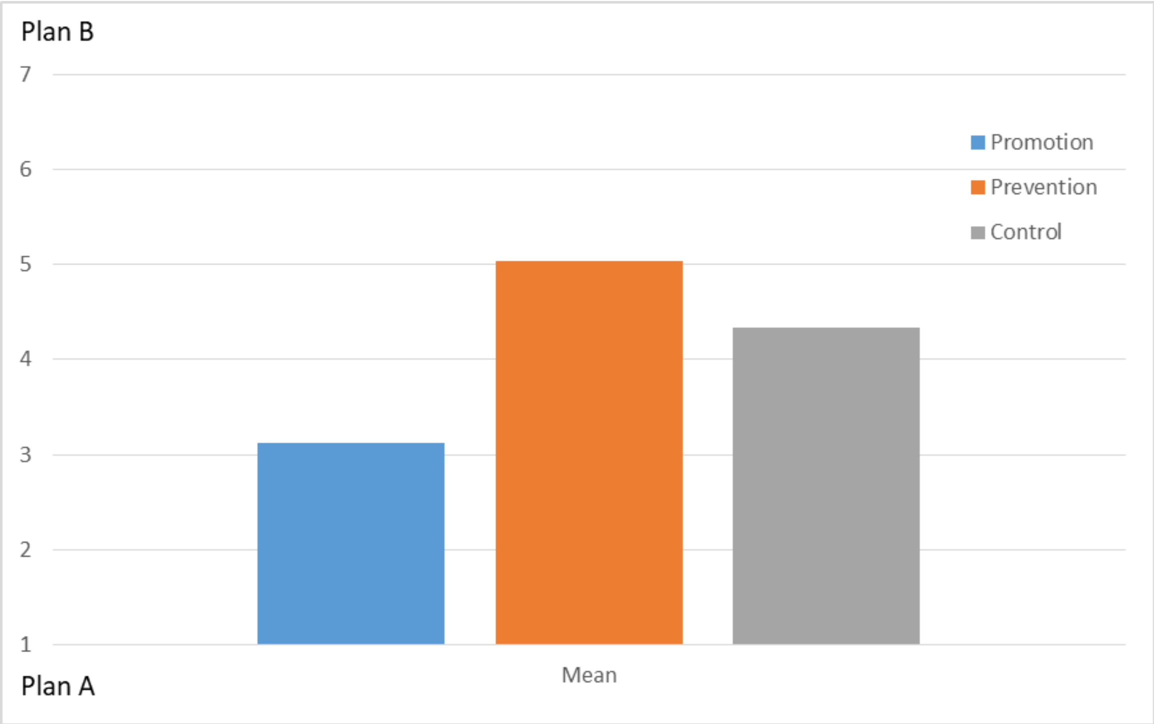

Figure 4: Comparison of Means Among Promotion, Prevention, and Control Conditions (Study 1)