Explaining consumer attitudes and purchase intentions toward organic food: Contributions from regulatory fit and consumer characteristics

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ABSTRACT

This study examines the influence of regulatory fit on consumer attitudes and purchase intentions toward organic food and describes the moderating role of consumer characteristics. To this end, hypotheses have been developed and subjected to empirical verification using a survey. The survey results, obtained in Taiwan, provide reasonable support for the hypotheses. Specifically, the findings from the analysis of variance confirm that the occurrence of a regulatory fit leads to a more positive attitude and a greater intention to purchase organic food than when no regulatory fit occurs. Furthermore, the findings from both moderated regression analysis and simple slope analysis show that the relationships between regulatory fit and both attitude and purchase intention are moderated by consumer characteristics (i.e., trust propensity and self-confidence). Based on the findings, academic and practical implications are discussed.

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1. Introduction

Over the last decade, consumers have worried about the quality of the food they eat because of food crises, such as mad cow disease, the foot-and-mouth epidemic and the Belgian dioxin scandal (Miles & Frewer, 2001). Recurring food safety incidents have raised consumers' concerns about food quality and safety (Liu, Pieniak, & Verbeke, 2013). Furthermore, several researchers (e.g., Chryssohoidis & Krystallis, 2005; Mondelaers, Verbeke, & Huylenbroeck, 2009) proposed that increasing environmental awareness together with concerns regarding safer foods have caused people to question modern agricultural practices. This phenomenon is reflected in a growing demand for organic produce, which is considered less damaging to the environment and healthier than traditionally grown foods (Mondelaers, Aertsens, & Huylenbroeck, 2009; Schifferstein & Oude Ophuis, 1998; Williams & Hammit, 2001). By definition, organic foods are not genetically modified and are produced specifically without the application of synthetic chemicals such as pesticides and fertilisers (Chen, 2007). Specifically, organic foods include less harmful additives and more primary nutrients (vitamin C, dry matter, minerals) and secondary nutrients (phyto-nutrients) than traditional foods. Numerous researchers (Grankvist & Biel, 2001; Lee, Shimizu, Kniffin, & Wansink, 2013; Magnusson, Arvola, Koivisto Hursti, Aberg, & Sjoden, 2001) indicated that consumers perceive foods labelled as organic to be healthier than traditional foods.

Between the sensory aspects of food (e.g., taste, odour, texture characteristics) and the impact of non-food effects (e.g., cognitive information, the physical environment, social factors) (Eertmans, Baeyens, & Van den Bergh, 2001), human food choice is difficult. Although various models represent the complexity of food choice behaviour (Aertsens, Verbeke, Mondelaers, & Huylenbroeck, 2009; Conner, 1993; Furst, Connors, Bisogni, Sobal, & Falk, 1996; Gifford & Bernard, 2006; Zander & Hamm, 2010, 2012), little research has investigated the impact of the regulatory fit effect, especially associated with organic food choice. Social psychologists and marketing researchers have found great success in using Avnet and Higgins' (2006) regulatory fit theory to explain consumer food choice behaviour (Bredahl, 2001; Dreezens, Martijn, Tenbult, Kok, & de Vries, 2005; Verdurme & Viaene, 2003). Specifically, Fransen, Reinders, Bartels, and Maassen (2010) found that the communication message matching a consumer's regulatory orientation (i.e., the occurrence of a regulatory fit) causes more positive attitudes and greater intention to buy foods compared with a communication message that does not match consumer's regulatory orientation. In this context, Regulatory Focus Theory (RFT) (Higgins, 1997) seems relevant. According to RFT, consumers differ in their sensitivity to different types of information. Consumers with a

promotion-focus are particularly sensitive to the presence or absence of positive outcomes, whereas consumers with a prevention focus are particularly sensitive to the presence or absence of negative outcomes. People will experience fit when they adopt goal pursuit strategies or engage in activities that sustain their regulatory orientation (Avnet & Higgins, 2006). Accordingly, the current study investigates whether the influence of an information message regarding organic food is stronger when the message is framed to match consumers' regulatory focus.

Additionally, as no two consumers are alike (Smith & Sivakumar, 2004), Hsu, Chang, and Chen (2012) suggested that consumer characteristics (e.g., trust propensity and self-confidence) play a moderating role in the effectiveness of an information message on consumers' attitudes and behavioural intentions. In summary, this study examines the effects of (1) marketing messages and their fit with consumers' regulatory focus (one of the purposes is to provide insight to marketers on the effective use of marketing messages to affect consumer attitude and purchase intention toward organic food) and (2) the moderating role of consumer characteristics in explaining the relationship between regulatory fit and the consumers' attitudes and purchase intentions regarding organic food.

2. Literature review and hypothesis development

2.1. Message frame

We recognise that marketing messages may be more persuasive if they fit an individual's regulatory orientation and we therefore employ common research on message framing. As indicated by Rothman and Salovey (1997), health messages are typically either gain-framed, that is, framed to convey the benefits of conducting health-promoting behaviour (e.g., performing a breast self-exam), or loss-framed, that is, framed to convey the costs associated with failing to conduct health-promoting behaviour (e.g., not performing a breast self-examination). Gain-framed messages enhance persuasion when utilised to encourage preventive health behaviour such as utilising mouth rinse to prevent gum disease (Rothman, Martino, Bedell, Detweiler, & Salovey, 1999) or the application of sunscreen to prevent skin cancer (Detweiler, Bedell, Salovey, Pronin, & Rothman, 1999), whereas loss-framed messages enhance persuasion when used to promote health detection behaviour such as HIV testing (Kalichman & Coley, 1995) or mammography and breast self-examination (Banks et al., 1995; Finney & Iannoti, 2002). Predictions regarding the health domain-dependent effects of gain- and loss-framed messages originated in prospect theory (Tversky & Kahneman, 1981), which suggests that people are risk seeking in the area of losses and risk averse in the area of gains.

2.2. Regulatory fit effects

Higgins (1997) suggested that consumers could be segmented into two different motivational orientations – promotion-focus and prevention-focus. Consumers with a promotion-focus are motivated by achieving ideal goals such as their hopes, aspirations and accomplishments. However, those with a prevention-focus are motivated by goals related to their responsibilities, duties and obligations. Kirmani and Zhu (2007) proposed that promotion-focused people are likely to pursue their goals with eagerness, whereas prevention-focused people are likely to pursue their goals with vigilance. The regulatory focus can be activated by stimulants/priming such as experimental promotion versus prevention framing (Avnet & Higgins, 2006; Wang & Lee, 2006). Findings from RFT show that contextual cues such as the framing of a rewards system or the

priming of hopes or duties can affect an individual's situational regulatory focus (Higgins, 2000).

Aaker and Lee (2006) indicated that people with promotion goals are sensitive to gains and non-gains, whereas people with prevention goals are sensitive to losses and non-losses. Thus, different goals trigger the selective identification and the placing of trust in information that assists people in achieving their goal. When people engage in activities or adopt goal pursuit strategies that support their regulatory orientation, they will experience regulatory fit (Avnet & Higgins, 2006). When actions serve to maintain the goal orientation of an individual, they tend to elicit stronger reactions to that which they are evaluating at that time. Avnet and Higgins (2006) found that people with a regulatory focus (either a promotion- or prevention-focus) are willing to pay more for a product that matches their regulatory orientation. When people experience regulatory fit, their attitude toward a product becomes more positive. Kruglanski (2006) proposed that regulatory fit, which occurs when an individual's goal is matched, should give an individual a positive sense of satisfaction. Wang and Lee (2006) proposed that individuals develop more positive attitudes toward their target when the strategy they adopt or the information they review fits their regulatory goal. An experience that feels right gives an individual a sense of self-assurance and self-worth (Kruglanski, 2006). Further Lee and Aaker (2004) proved that regulatory fit leads to favourable attitudes, which enhance approach behaviours.

In addition, the regulatory fit of an experience that feels right and an experience that feels good (Aaker & Lee, 2006) in turn increase the strength of engagement in the actual behaviour (Hong & Lee, 2008). Thus, when individuals are strongly engaged with something, they become highly attentive, involved and occupied with it (Avnet & Higgins, 2006). Lee and Aaker (2004) demonstrated that regulatory fit affects intended behaviour, given that an individual desires to pursue a goal. Lee and Higgins (2008, p. 328) stated that those experiencing regulatory fit 'become more engaged in the activity'. They argue that regulatory fit is mainly a magnifier of people's attitudes and behaviours, which signifies that regulatory fit is more likely to intensify reactions and behaviour. Thus, based on the above discussion, the following hypotheses are constructed:

H1: When promotion-focused consumers (prevention-focused consumers) are exposed to a gain-framed message (loss-framed message), the occurrence of regulatory fit will evoke a more positive attitude toward organic food than when no regulatory fit occurs.

H2: When promotion-focused consumers (prevention-focused consumers) are exposed to a gain-framed message (loss-framed message), the occurrence of regulatory fit will evoke greater intention to purchase organic food than when no regulatory fit occurs.

2.3. Trust propensity as a moderator

Hsu et al. (2012) confirmed that consumer characteristics such as individual trust propensity significantly affect consumer shopping behaviour. Trust propensity is a personality trait defined as a 'general willingness based on extended socialisation to depend on others' (McKnight & Chervany, 2001/2002; Ridings, Gefen, & Arinze, 2002). Trust propensity characterises a consumer's tendency to trust or distrust other consumers. Those who typically trust others under conditions of uncertainty believe they will be treated reasonably and that, over time, their positive actions will be reciprocated (Smith, Organ, & Near, 1983). McKnight, Cummings, and Chervany (1998) suggested that high trust propensity individuals believe 'that things turn out best when one is willing to depend on others, even though others may or may not be trustworthy'. Trust propensity intensifies or reduces the signals

provided by cues (e.g., trustworthiness attributes) (Lee & Turban, 2001). Consumers vary in their readiness to trust others (people or entities), and this individual characteristic has been shown to have an effect on customer trust (Lee & Turban, 2001). Cheung and Lee (2001) indicated that trust propensity affects trust in shopping behaviour. Limerick and Cunnington (1993) also believed that trust can reduce uncertainty about the future and is necessary for a continuing relationship with participants who display opportunistic behaviour. Prati, Pietrantoni, and Zani (2012) confirmed that the formation of trust diminishes consumers' perceived risk of food shopping. To summarise, consumers' overall disposition regarding trust plays a key role in determining their purchasing behaviour.

Furthermore, as shown in a study by McCole, Ramsey, and Williams (2010), trust in the vendor and the message provided has a positive impact on attitude toward purchasing behaviour. That is, individuals with a high level of trust propensity will selectively attend to information congruent with their level of trust in humanity and interpret new information based on their natural tendency (Limerick & Cunnington, 1993). Ferrin and Dirks (2003) offered a similar explanation by suggesting that people with a low propensity to trust may be more likely to have a 'suspicion' bias when processing information concerning trustworthiness. Chen and Huang (2013) confirmed that individuals with a higher degree of trust are more likely to have less perceived information asymmetry and less fear of seller opportunism toward food. Thus, trust in both the vendor and the message enables consumers to focus on the undertaking. Therefore, in situations of uncertainty between buyers and sellers, trust facilitates continuation of the transaction process (Chen & Huang, 2013). In addition, the regulatory fit experience of 'it just feels right' may occur when individuals concentrate on specific tasks in line with their goals. An individual may feel the experience is 'just right' upon receipt of information or feedback that enables them to learn more about the progress being made toward the achievement of a specific goal (Aaker & Lee, 2006). Lee and Higgins (2008) argued that regulatory fit is mainly a magnifier of people's attitudes and behaviours. Thus, the moderation effect can be viewed positively in the sense that a greater trust propensity results in a stronger impact of regulatory fit on attitude and purchase intention. Based on the above discussions, the following hypotheses are constructed:

H3: The greater the trust propensity is, the stronger the relationship will be between regulatory fit and attitude toward organic food.

H4: The greater the trust propensity is, the stronger the relationship will be between regulatory fit and intention to purchase organic food.

2.4. Self-confidence as a moderator

Confidence is identified as an important consumer characteristic in this study. Confidence is associated with consumer attitudes and directly affects the purchasing intentions of the consumers (Howard, 1977). Through repeat purchases and the performance of specific shopping behaviour, a person can establish his or her self-identity (Sparks & Shepherd, 1992). The more an individual purchases organic foods, the more helpful his or her self-perception may be. In addition, Higgins (2000) proposed that individuals experience a regulatory fit when they use a means of goal pursuit that fits their regulatory orientation, with the regulatory fit enhancing the value of their acts. Avnet and Higgins (2006) also indicated that regulatory fit could increase decision makers' confidence, importance and engagement in their reactions whether those reactions are positive or negative. Consumers with a high level of self-confidence will feel very driven and confident in their search for product details (Sirgy, 1982). Highly self-confident individuals perceive that their skills and abilities allow them to meet or exceed the difficulty

of tasks they face; thus, they feel capable of managing the risks typically associated with organic food shopping. In addition, regulatory fit has a potential relationship to subjective well-being and happiness. Namely, subjective well-being and happiness may improve with increased confidence and motivational strength since the concept of fit can be used not only in regulatory, goal-directed strategies but also in other goal-directed strategies (Aaker & Lee, 2006). The regulatory fit experience of 'it just feels right' (Aaker & Lee, 2006) may occur when an individual concentrates on specific tasks in line with his or her goals. Regulatory fit enhances the strength of engagement. When individuals experience a strong engagement with something, they are highly attentive to it and become involved and occupied with it (Avnet & Higgins, 2006). Therefore, the moderation effect can be viewed positively in the sense that a higher level of self-confidence results in a stronger impact of regulatory fit on attitude and purchase intention. Based on the above discussions, the following hypotheses are developed:

H5: The greater the self-confidence, the stronger the relationship will be between regulatory fit and attitude toward organic food.

H6: The greater the self-confidence, the stronger the relationship will be between regulatory fit and intention to purchase organic food.

3. Method

3.1. Design, participants and procedure

An online experiment was used to test the proposed hypotheses in this study. This study used a 2 (regulatory focus: promotion vs. prevention) × 2 (message framing: gain-related message vs. loss-related message) between-subjects design. Two hundred and sixteen individuals above the age of 20 in Taiwan were included in the target population. According to standard statistical area classification (i.e., north, mid-, south, and east of Taiwan) and demographic variables (e.g., gender and age) data from the Ministry of the Interior, R. O. C. (2004), stratified sampling was conducted to obtain valid responses for this empirical analysis.

First, the participants completed an evaluation of chronic regulatory focus and moderating variables (i.e., trust propensity and self-confidence). Then, participants received either one of two gain-related marketing messages or one of two loss-related marketing messages. In previous studies (Daryanto, de Ruyter, & Wetzels 2010; Fransen et al., 2010; Lee & Aaker, 2004; McKay-Nesbitt, Bhatnagar, & Smith, 2013), to create a regulatory fit or non-fit condition, a gain-framed message or loss-framed message addressing the concerns for positive or negative outcomes was given to promotion-focused participants or prevention-focused participants to achieve the regulatory fit condition. In contrast, promotion-focused participants or prevention-focused participants were given a loss-framed message or gain-framed message addressing their concerns for negative outcomes or positive outcomes to achieve the regulatory non-fit condition. Thus, consistent with previous studies, after reading the manipulated messages, participants' regulatory fit and non-fit conditions were created in this study. Next, the participants immediately responded to questions that measured outcome variables (i.e., attitude and intention to purchase organic food) and demographic variables (e.g., gender, age) to evaluate the manipulation.

3.2. Independent variables

3.2.1. Chronic regulatory focus

Consistent with other researchers within regulatory focus literature (Zhao & Pechmann, 2007), the Regulatory Focus Scale (RFS)

(Lockwood, Jordan, & Kunda, 2002) was used to measure participants' chronic regulatory focus. The RFS consists of eighteen items, each on a nine-point scale (where 1 = 'not at all true of me', and 9 = 'very true of me'; see Appendix). This measure consists of nine promotion items and nine prevention items. Scale reliability was adequate for both subscales (Cronbach's α = .80 for promotion items; Cronbach's α = .82 for prevention items). Additionally, this study confirmed that the chronic promotion- and prevention-focus scales were not significantly correlated. Therefore, items were averaged to form chronic promotion- and prevention-focus indices. The difference between participants' chronic promotion and prevention scores determined their chronic regulatory focus (Zhao & Pechmann, 2007); a positive difference in scores indicates a chronic promotion-focus, and in contrast, a negative difference in scores indicates a chronic prevention-focus.

3.2.2. Message framing

Participants were exposed to a message about organic foods that was framed in either gain-related terms (stressing the attainment of positive outcomes) or loss-related terms (stressing the prevention of negative outcomes). To measure how successfully this study manipulated the message framing, participants were asked to indicate the extent to which the message framing was gain- or loss-related (1 = strongly disagree and 7 = strongly agree). This study manipulated the message framing as suggested by Fransen et al. (2010), who highlighted the gain-related terms or loss-related terms in *italics* to successfully achieve the manipulation of message framing (see Appendix). Participants were randomly exposed to one of the messages (gain-related message, n = 114; loss-related message, n = 102), each approximately 180 words in length. The gain-framed message highlighted the benefits of organic food, while the loss-framed message highlighted the avoidance of negative impacts when purchasing organic food. Only the framing of the message varied between the two conditions; the content of both messages was approximately the same. Six experts independently evaluated the messages to confirm that they were correctly described in the intended orientation focus.

3.3. Moderating variables

Four items were adapted from Lee and Turban (2001) to measure trust propensity: 'It is easy for me to trust a person/thing', 'My tendency to trust a person/thing is high', 'I tend to trust a person/thing even though I have little knowledge of it', and 'Trusting someone or something is not difficult'. Scale reliability was adequate for the construct of trust propensity (Cronbach's α = .90). Furthermore, four items were adapted from Dash, Schiffman, and Berenson (1976) to measure self-confidence: 'Do you ever feel bothered about what other people think of you?', 'How do you feel about your abilities in general?', 'Just before your recent purchase of some product, how would you have rated your ability to judge the quality of the product?', and 'Just before your recent purchase of some product, how confident were you in your ability to make a good choice?' Scale reliability was adequate for the construct of self-confidence (Cronbach's α = .80). Participants responded to the questions for both trust propensity and self-confidence on a seven-point scale, where 1 indicates strongly disagree and 7 indicates strongly agree.

3.4. Dependent variables

3.4.1. Attitude to organic food purchase

The participants' attitudes toward organic food purchase were measured using the following three items on seven-point scales adapted from Bredahl (2001): 'Attitude to purchase organic foods is extremely bad–extremely good', 'Attitude to purchase organic

foods is extremely unpleasant–extremely pleasant', and 'I am strongly for–strongly against buying organic foods'. Scale reliability was adequate for the construct of attitude toward organic food purchase (Cronbach's α = .89)

3.4.2. Purchase intention

Intention to purchase organic food was measured using the following item: 'If organic foods were available in the shops, I would intend to definitely avoid it–definitely buy it,' adapted from Bredahl (2001). Participants responded to the questions for both attitude to organic food purchase and purchase intention on a seven-point scale, where 1 indicates strongly disagree and 7 indicates strongly agree.

4. Results

4.1. Manipulation check

To measure how successfully this study manipulated the message framing, participants were asked to indicate the extent to which the message framing was perceived as gain-related or loss-related. A t-test showed a significant difference in the expected direction, $t = 25.72$, $p < .001$. Participants who were exposed to the gain-related message (M = 6.02) reported significantly higher benefits of organic food than those participants exposed to the loss-related message (M = 2.96). Additionally, participants who were exposed to the loss-related message (M = 6.10) perceived significantly higher avoidance of negative impacts than those participants exposed to the gain-related message (M = 2.67; $t = 27.64$, $p < .001$).

4.2. Congruency effects of message focus on attitude to organic food purchase

To test our hypothesis that participants have a more positive attitude toward organic food when their regulatory focus is congruent (vs. incongruent) with the framing of the message, we submitted our data to a 2 (regulatory focus: promotion vs. prevention) × 2 (message framing: gain-related message vs. loss-related message) ANOVA with the mean attitude score as the dependent variable. As shown in Table 1, the results yielded no main effects for either regulatory focus (F(1, 212) = 1.68, NS) or framing of the message (F(1, 212) = 2.42, NS). The interaction effect between regulatory focus and message framing was significant (F(1, 212) = 5.99, $p < .01$). Inspection of the means demonstrated that participants with a promotion-focus had a more positive attitude toward organic food when they were presented with the message that was gain-framed (M = 4.85, SD = .89) than when they were presented with the loss-framed message (M = 3.59, SD = 1.29). Conversely, participants with a prevention-focus evaluated organic foods more positively when they were confronted with the loss-framed message (M = 5.18, SD = .92) than when they were confronted with the gain-framed message (M = 3.65, SD = .56). These results confirm hypothesis 1.

4.3. Congruency effects of message focus on intention to purchase organic food

To test our hypothesis that participants have a greater intention to purchase organic food when their regulatory focus is congruent (vs. incongruent) with the framing of the message, we submitted our data to a 2 (regulatory focus: promotion vs. prevention) × 2 (message framing: gain-related message vs. loss-related message) ANOVA with the mean intention score as the dependent variable. As Table 2 shows, no material effects were observed for regulatory focus (F(1, 212) = 2.80, NS) or message framing (F(1, 212) = .21, NS).

Table 1
Attitude to organic food purchase – a function of regulatory focus and message framing.

Message framing	Regulatory focus				
	Promotion focus			Prevention focus	
	$M_{attitude\ to\ organic\ food\ purchase}$	SD		$M_{attitude\ to\ organic\ food\ purchase}$	SD
Gain-related message	4.85	.89		3.65	.56
Loss-related message	3.59	1.29		5.18	.92

Note: M represents the mean value of attitude to organic food purchase. SD refers to standard deviation.

The results revealed the expected effect of the interaction between regulatory focus and message framing ($F(1, 212) = 9.83$, $p < .01$). Inspection of the means showed that participants with a promotion-focus showed a greater intention to buy organic food when they read the message framed in gain-related terms ($M = 5.24$, $SD = .91$) than when they read the message framed in loss-related terms ($M = 3.37$, $SD = 1.06$). In contrast, participants with a prevention-focus were more willing to buy organic food when they were presented with the loss-framed message ($M = 5.44$, $SD = .89$) than when they were confronted with the gain-framed message ($M = 3.71$, $SD = .77$). Thus, hypothesis 2 was confirmed.

4.4. Testing for the moderating effects of consumer characteristics

To test whether the moderating effects of consumer characteristics exist in the regulatory fit and attitude to organic food purchase link, and in the regulatory fit and intention to purchase organic food link, this study used a moderated regression analysis (MRA) to identify the existence of moderating effects of consumer characteristics (i.e., trust propensity and self-confidence). Before the MRA was performed, the reliability of the scales for the constructs in the study was tested. The indicators applied to measure a common underlying construct were summed up and divided by the number of the items.

With regard to the test results of the moderating effect of the trust propensity, the adjusted R^2 values for the trust propensity moderating effect equations are 0.52 for the consumer's attitude to organic food purchase and 0.73 for the consumer's intentions to purchase organic food. The statistics provide satisfactory explanation for the variances in the dependent variables.

Furthermore, to better explain the findings on interaction effects and obtain further support for the direction of the hypothesised interaction relationships, a simple slope analysis was conducted as suggested by Aiken and West (1991). High level of trust propensity was calculated by subtracting one standard deviation from the mean, and low level of trust propensity was found by adding one standard deviation to the mean value. The results show that for those with a high trust propensity, the regulatory fit was significantly associated with consumers' attitude ($b = .31$, $p < .05$) and intentions to purchase organic food ($b = .35$, $p < .05$). In contrast, for those who were low in trust propensity, regulatory fit was not significantly associated with consumer's attitude ($b = .11$, $p > .05$) and intentions to purchase organic food ($b = .14$, $p > .05$). Specifically, as supported by a simple slope analysis, when

regulatory fit occurs, participants who were high in trust propensity had more favourable attitudes ($t(215) = 3.97$, $p < .05$) (as shown in Fig. 1(a)) and greater intention to purchase organic food ($t(215) = 4.16$, $p < .05$) (as shown in Fig. 1(b)) than those who were low in trust propensity. Thus, the results of slope analysis combined with the results of moderated regression analysis provide support for H3 and H4.

The results showed that for those who were high in self-confidence, the regulatory fit was significantly associated with consumer's attitude ($b = .37$, $p < .05$) and intentions to purchase organic food ($b = .43$, $p < .05$). In contrast, for those who were low in self-confidence, regulatory fit was not significantly associated with consumer's attitude ($b = .13$, $p > .05$) and intentions to purchase organic food ($b = .12$, $p > .05$). Specifically, as supported by a simple slope analysis, when regulatory fit occurs, participants who were high in self-confidence had more favourable attitudes ($t(215) = 3.82$, $p < .05$) (as shown in Fig. 2(a)) and greater intention to purchase organic food ($t(215) = 4.05$, $p < .05$) (as shown in Fig. 2(b)) than those who were low in self-confidence. Thus, the results of slope analysis combined with the results of moderated regression analysis provide support for H5 and H6.

5. Discussion

5.1. Implications for academic researchers and practitioners

This study aims to show that consumers' attitudes to organic food purchase and intention to purchase organic food can be affected when they are exposed to a message that is framed to correspond with their regulatory focus. Specifically, this study aims to show the concept of 'value from fit' by examining the role of communication messages and the individual's pre-existing regulatory focus. We find that framing a message in agreement with consumers' regulatory focus positively affects the consumers' attitudes and purchase intentions toward organic food. The creation of regulatory fit plays an important role in improving levels of consumer attitudes and purchase intentions toward organic food for marketers. Consequently, marketers should frequently look to create a shopping situation that matches the consumers' regulatory focus because regulatory fit will occur where consumers use strategies or are involved in activities that are identical to their regulatory orientation. Specifically, different regulatory foci trigger consumers to selectively categorise and trust information that helps them achieve their goal. For example, if consumers visit a retail store to buy organic food, the marketing

Table 2
Intentions to purchase organic foods – a function of regulatory focus and message framing.

Message framing	Regulatory focus				
	Promotion focus			Prevention focus	
	$M_{intentions\ to\ purchase\ organic\ foods}$	SD		$M_{intentions\ to\ purchase\ organic\ foods}$	SD
Gain-related message	5.24	.91		3.71	.77
Loss-related message	3.37	1.06		5.44	.89

Note: M represents the mean value of intentions to purchase organic foods. SD refers to standard deviation.
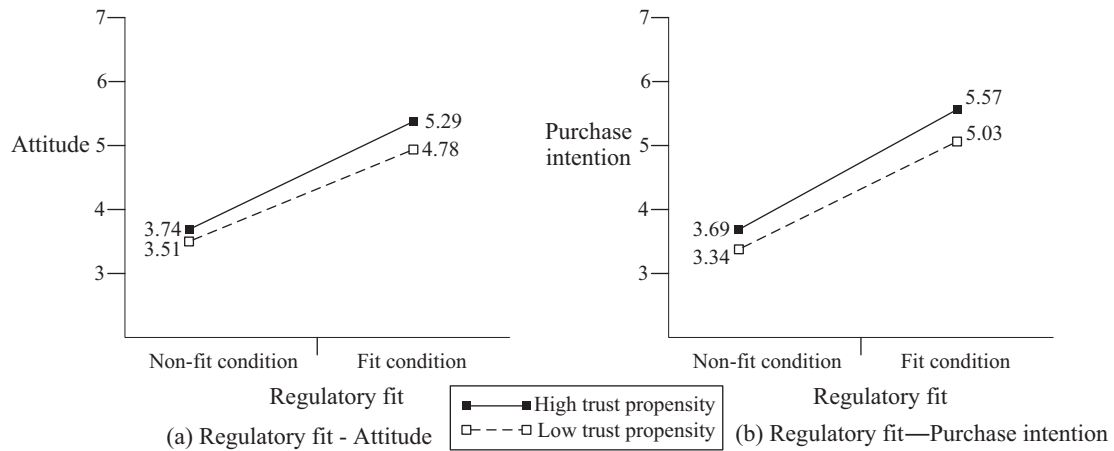
Fig. 1. Slope analysis for various levels of the moderator variable (trust propensity) for consumers' regulatory fit effect.
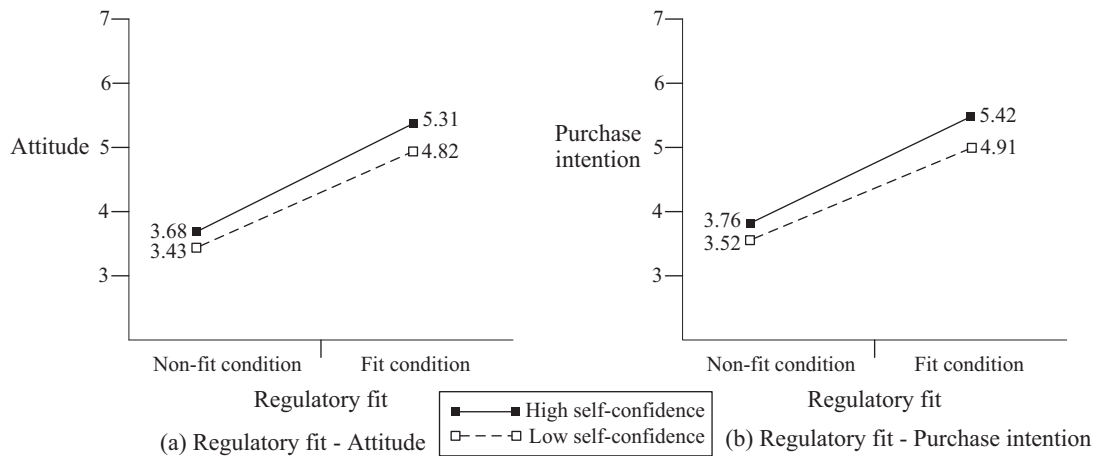

Fig. 2. Slope analysis for various levels of the moderator variable (self-confidence) for consumers' regulatory fit effect.

message of the retail store delivered to consumers might emphasise the consequences of choosing (or not choosing) organic food. The marketing message delivered in an educational tone may include data about physical health and environmental protection suggesting that organic foods lead to a healthier body and are favourable to the environment; therefore, those who consistently choose organic food tend to have healthier bodies and do not cause environmental damage to the earth. However, those who do not consistently choose organic food tend to have more unhealthy bodies and cause environmental damage to the earth.

Besides, our results indicate that not only pre-existing attitudes, but also pre-existing consumer characteristics, play an important moderating role in influencing attitudinal and behavioural outcomes. Specifically, this study attempts to confirm the existence of moderating effects of consumer characteristics on the regulatory fit-attitude to organic foods purchase link and on the regulatory fit-intentions to purchase organic food link. We expect that consumers with a promotion-focus and stronger trust propensity or self-confidence will exhibit more positive attitudes and a greater intention to purchase organic food when they are presented with a message highlighting the attainment of gain than when they are presented with a message highlighting the prevention of loss. In contrast, consumers with a prevention focus and stronger trust propensity or self-confidence will hold more positive attitudes and show a greater intention to purchase organic food when they are exposed to a message focusing on the prevention of loss than when they are exposed to a message focusing on the attainment of gain.

As indicated by Limerick and Cunnington (1993), consumers with a high level of trust propensity will selectively focus on information congruent with their level of trust in humanity and explain new information according to their natural tendency. Highly self-confident consumers may believe that their skills allow them to meet or exceed the difficulty of the tasks they face. Specifically, consumers with a high degree of confidence perceive that their own abilities and skills will facilitate their management of the risks of being cheated when buying organic food; thus, decreasing the amount of time they need to make a purchase decision. In summary, this study attempts to explain that marketers' success depends on their ability to create opportunities for consumers to experience regulatory fit and must consider the individual internal factors that influence their attitudes and intentions toward organic food.

5.2. Limitations and further research directions

Although our study has some important implications for academic researchers and practitioners, our study has some limitations. First, this study was conducted among participants from a single cultural context; therefore, as indicated by Gardner, Gabriel, and Lee (1999), it may be valuable to examine the extent to which the findings are generalisable across different cultural contexts. Second, this study used RFS (Lockwood et al., 2002) to measure participants' chronic regulatory focus rather than their manipulated focus. It may be valuable to investigate whether the same results are obtained when regulatory focus is manipulated

rather than measured to increase the reliability of our results. Third, although our results successfully verified the moderating effects of consumer characteristics on the relationships between regulatory fit, attitude and purchase intention, it is important to investigate other factors that may play a critical moderating role in these relationships. Finally, in previous studies, the experimental manipulations of marketing messages were conducted using either *italic* words (Fransen et al., 2010; Latimer et al., 2008; Melnyk, van Herpen, Fischer, & van Trijp, 2013) or boldface words (Daryanto et al., 2010; McKay-Nesbitt et al., 2013) to successfully highlight the manipulations of message framing. Following Fransen et al. (2010), this study highlighted the message framing using *italic* words. By doing so, the manipulated message framing whether it may exaggerate gains or losses will be a void. Moreover, some of the highlighted words in *italics* in our message framing have been used in previous studies (Fransen et al., 2010; Melnyk et al., 2013). However, since more scientific research needs to be conducted to better support the messages exaggerating losses used in this study, the sufficiency of scientific support of the messages is stated as a limitation, and providing more support of these messages can be a direction of future work.

6. Conclusions

This study aims to understand how communicated messages could be effective in affecting consumers' attitudes and behavioural intentions regarding organic food. As per RFS, our study finds that exposure to a communication message matching a consumer's regulatory focus (i.e., regulatory fit) leads to a more positive attitude and a greater intention to purchase organic food than exposure to a communication message that does not match a consumer's regulatory orientation. The results have attempted to show 'value from fit' in the prediction of intention to purchase organic food.

Furthermore, the results presented herein confirm the moderating effects of consumer characteristics on the relationships between regulatory fit, attitude and intention to purchase organic food. This contributes to the literature on regulatory fit and the literature on consumer characteristics. To our knowledge, this study is the first to show that regulatory fit effect not only influences attitudes (Aaker & Lee, 2001) and intentions (Cesario, Grant, & Higgins, 2004), but consumer characteristics also moderate the links between regulatory fit, attitude and intention to purchase organic food. Consistent with the findings of Hsu et al. (2012), consumer characteristics play an important moderating role in influencing consumers' purchase intention. Specifically, compared to consumers with low trust propensity or self-confidence, for the consumers with high trust propensity or self-confidence, the influences of regulatory fit on attitude and intention to purchase organic food are maximized. The results and findings from this study are helpful for marketers' design of more effective marketing messages to increase consumers' attitude and purchase intention toward organic foods, and to contribute to further research in facilitating expansion of the food industry.

Acknowledgment

Appendix A. Message manipulations

A.1. Organic foods (gain-related message framing)

Organic foods are produced without the application of synthetic chemicals. As such, *the foods are by definition organic*. By promoting the choice of organic foods, *the health of people and the Taiwanese'* *consciousness of environmental protection* can be improved. Organic foods are produced differently from those grown by conventional farming, are perceived as *healthier for consumers and provide a sustainable benefit to the environment*. For example, organic foods are *healthier* than conventional foods, and organic foods contain *more harmless additives and* more primary (e.g., vitamin C, dry matter, minerals) and secondary nutrients (i.e., phyto-nutrients) than conventional foods. Organic foods are perceived as *much more* healthy, natural, nutritious and sustainable than conventional foods. Organic foods are perceived as more *favourable* to the environment than conventionally grown foods. Thus, in addition to these *benefits* for the consumer, organic foods are also perceived as being *environmentally friendly*. This may be especially *profitable* for our earth. This is *favourable* for the agricultural sector worldwide. The government and related institutions guarantee that organic food products can be consumed *safely* and are *helpful* to our environment.

A.2. Organic foods (loss-related message framing)

Organic foods are produced without the application of synthetic chemicals. As such, *organic foods are by definition not genetically modified*. By promoting the choice to consume organic foods, *the health reduction of people can be delayed, and the decrease in the Taiwanese' consciousness of environmental protection* can be reduced. Organic foods are produced differently from those grown by conventional farming and are perceived as being *less damaging to consumers and the environment*. For example, organic foods are *less damaging* than conventional foods and contain *fewer harmful additives and not fewer* primary (e.g., vitamin C, dry matter, minerals) and secondary nutrients (i.e., phyto-nutrients) than conventional foods. Organic foods are perceived as *less damaging,* unhealthy, unnatural, innutritious and unsustainable than conventional foods. Organic produce is perceived as *less damaging* to the environment than conventionally grown foods. Thus, in addition to *preventing disadvantages* for the consumer, organic foods can also help to *prevent undesirable* environmental problems. In particular, this may *not* be *harmful* for our earth. This is also *not harmful* for the agricultural sector worldwide. The government and related institutions guarantees that organic food products can be consumed *without any risks*.

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