

# A Study on the Factors Influencing Long-Term Goal-Relevant Food Consumption\*

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## Abstract

**Purpose** - This research aims to explore factors that could facilitate and/or impede consumers' long-term goal-relevant food consumption, in the pursuit of a long-term goal.

**Research Design, Data, and Methodology** - The main experiment's sample comprised 289 female students at C University. The structural equation model of the Amos 18.0 program was used to verify the hypotheses.

**Results** - Hypotheses concerning positive effects of long-term goal commitment and expectancy of long-term goal attainment, and negative effects of pleasure-seeking needs on long-term goal-relevant food consumption behaviors were accepted. Furthermore, self-efficacy's positive effects on long-term goal commitment and expectancy of long-term goal attainment, and negative effects on the strength of pleasure-seeking were explored. Appearance self-esteem negatively affected long-term goal commitment.

**Conclusions** - Individuals' self-efficacy positively affects long-term goal commitment and expectancy of long-term goal attainment, and significantly weakens the need to seek pleasure in food consumption behaviors. Appearance self-esteem negatively affects long-term goal commitment. Both long-term goal commitment and expectancy of long-term goal attainment significantly positively influence long-term goal-relevant food consumption behaviors. However, those heavily needing pleasure-seeking are less likely to engage in such behaviors.

**Keywords:** Appearance Self-Esteem, Goal Commitment, Goal-Relevant Consumption, Pleasure-Seeking, Self-Efficacy.

**JEL Classifications:** C83, L81, M31, P46.

## 1. Introduction

Recently, the number of obese people is growing around the world due to the high calorie or fatty food-eating habits. People are generally aware that body weight contributes to diabetes, high blood pressure, high cholesterol and even cancer, and thus people are becoming to keep physically fit in order to prevent these and other diseases. In other words, people tend to pay more attention to health and well-being and are more and more interested in leading a healthy lifestyle to improve quality of life. The majority of people put more weight on their health development or well-being, which can be viewed as a long-term goal they pursue in their daily life.

On the other hand, individuals are motivated to seek pleasure and avoid pain (Higgins, 1997). Such needs of pleasure-seeking are associated with human beings' natural tendency, which can be viewed as an obstacle undermining consumers' long-term goal (e.g., pursuing health) attainment because such a need is one of the main factors leading to failure of self-control (Laran, 2010). To clarify, when exposed to some momentary temptations, consumers tend to be distracted from the long-term goal they are committed to because of needs of pleasure-seeking, which is consistent with the results of past research finding that long-term goal can be inhibited or set aside by the momentary temptations (Carlson et al., 2013). Built on prior research, however, the strength of pleasure-seeking is not invariably constant, and instead it may differ individually and change over time (Ramanathan & Menon, 2006). For example, impulsive people, compared with prudent people, tend to possess stronger needs of pleasure-seeking.

In general, goals are broadly divided into long-term goals (e.g., pursuing health) and short-term goals (e.g., momentary temptations) (Trope and Fishbach, 2000). These goals held by consumers are often in conflict with each other, thus it is necessary for consumers to manage such conflicting goals in order to attain the long-term health goal. Past research demonstrates that goal theory can explain how consumers manage these multiple, competing goals (Fishbach & Dhar, 2008). For example, in the course of goal pursuit, individuals actively monitor how much progress they have made in attaining the focal goal. Once they think they have made progress in pursuing a focal goal, they strive to make progress on other competing goals even though the focal goal has not actually been fulfilled

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(Fishbach & Dhar, 2005). However, to the best of our knowledge, few studies paid attention to the factors that can impact both long-term goal commitment and needs of pleasure-seeking.

In addition, people evaluate the desirability and feasibility of goal attainment before they choose a goal they would like to achieve. Feasibility is the probability that an action will achieve the desired end state, which can be considered as an antecedent to goal-directed behaviors (Bagozzi et al., 2003). And the feasibility is an important factor in individuals' decisions to adopt a goal. If people assess there is a high chance to reach a goal, they will be more likely to pursue the goal. Expectancy of goal attainment in view of feasibility refers to the subjective probability of achieving a goal, hence we argue that in the pursuit of long-term goal, it is also necessary to consider the likelihood of achieving the long-term goal.

Therefore, in this research, we predict long-term goal-relevant consumption leading to the attainment of long-term goal requires the individual to be committed to the long-term goal, to control their desire of pursuing momentary pleasure, and to consider the likelihood of reaching the long-term goal. And we will explore the impacts of self-efficacy and appearance self-esteem on long-term goal commitment, pleasure-seeking and long-term goal expectancy which could lead to long-term goal-relevant consumption.

## 2. Theoretical Background and Hypotheses

### 2.1. The Factors Influencing Long-term Goal-Relevant Consumption

#### 2.1.1. The Influence of Long-term Goal Commitment on Long-term Goal-Relevant Consumption

The majority of daily activities of consumers are goal-directed. Goals involve internal representations of desired outcomes that people strive to attain and of undesired states that they strive to avoid (Baumgartner & Pieters, 2008). Goals can be activated either volitionally or nonvolitionally.

However, in this research, we focus on the goals that are clearly volitional in nature. Volitional or conscious goals refer to the specific end-states that the decision maker seeks to attain after a conscious deliberative process of selection (Bagozzi & Dholakia, 1999). Behaviors driven by volitional goals are initiated with the formation of a goal intention. The formation of a goal intention suggests consumers begin to be committed to attaining it because a goal intention binds consumers to their desired end state. In other words, goal commitment is an important consequence of the goal intention formation process (Dholakia & Bagozzi, 2003).

Fishbach and Dhar, (2005,p. 370) defined goal commitment as 'an inference concerning the strength of a goal' it is one's attachment to or determination to reach a goal and it induces continuous actions toward a certain goal. People infer goal com-

mitment from accomplished actions, and in turn they show greater motivation to further pursue the goal. Commitment to a certain goal can increase the sense that the goal is valuable and signals individuals' decisions to engage in the pursuit of this goal with the expectation of final attainment. Moreover, the commitment to a focal goal can engender subsequent behaviors consistent with the focal goal and inhibit any competing goals (Shah et al., 2002). To illustrate, when consumers' initial choice signals commitment to a focal goal (e.g., to be physically fit), they are more likely to make consistent subsequent choices, such as choosing healthy food items.

Pursuing health or well-being is one of individuals' natural tendencies. With the increase of awareness toward healthy development, people around the world are becoming to lead a healthier lifestyle to improve quality of life. The efficient pursuit and attainment of long-term goals will be associated with more positive performance and well-being outcomes. Accordingly, we believe the majority of consumers view pursuit of health or well-beings as a focal or long-term goal in their mindset due to reasons of self-esteem (appearance), and concerns about longevity and survival.

Conscious goals play a significant role in the purposive behavior of consumers. Consistent with the literature on hierarchical organization of goal-directed behavior (Bagozzi & Dholakia, 1999; Perugini & Conner, 2000), once a goal is set, people proceed to consider a plan specifying how and when the actions necessary for attaining the chosen goal will be performed. For example, once the decision to lose weight has been made, an individual can make plans to consider when, where, how, and how long to lose weight, such that "I am planning to control my food intake to lose weight", "I intend to take exercise in the morning everyday to lose body weight". People in a state of high goal commitment tend to invest more personal resources to attain their focal goal, and are less likely to perform behaviors inconsistent with their focal goal (Zhang & Szu-Chi, 2010).

Therefore, in the current research, we argue that once consumers are committed to a long-term goal (e.g., to be physically fit), they then move to the consideration of action alternatives, considering details regarding when, where, how, and how long to perform long-term goal-directed actions, which, in turn, can lead consumers to perform long-term goal-relevant consumption behaviors. That is, consumers who are committed to their long-term goal are more likely to perform consumption behaviors driven by their long-term goal. Thus, our hypothesis is expressed as follows:

H1: Long-term goal commitment has a positive impact on long-term goal-relevant consumption.

#### 2.1.2. The Influence of Strength of Pleasure-seeking on Long-term Goal-Relevant Consumption

People are motivated to seek pleasure and avoid pain. The needs of pleasure-seeking have been viewed as an inborn na-

ture of human beings. The hedonic principle of seeking pleasure and avoiding pain has been well accepted as the basic motivational assumption of theories in the psychology literature (Higgins, 1997).

In daily life, people are often exposed to various momentary temptations (e.g., chocolates cake, cookies, etc.) that not only prevent them from achieving their desirable long-term end states (e.g., to be physically fit) but also increase the intentions to consume products that are in line with the exposed temptations. Past research has shown that consumers find it difficult to resist such activated temptations because of human beings' nature of pleasure-seeking (Laran, 2010). Needs of pleasure-seeking can be viewed as an obstacle undermining long-term goal attainment. We believe that consumers who are striving to achieve a long-term goal will experience a goal conflict between their natural tendency to seek pleasure and the attainment of long-term goal, in part because the needs of pleasure-seeking, one of main factors leading to self-control failure, are closely interconnected with some tempting appeals.

Literature on goal theories implies that whether people can achieve goals depends on how people regulate their goal-directed behaviors. When exposed to tempting appeals, people need to execute self-control over themselves so as to resist the desire of pursuing momentary pleasure activated by environmental cues. However, a person's needs of pleasure-seeking may be so strong that it overrides his or her capacity or willingness for self-control, which, in turn, results in succumbing to rather than resisting the temptations. For example, Vohs and Faber (2007) find that impulsive behaviors tend to be implemented when the needs of pleasure-seeking take precedence over the strength of self-regulation. In this research, we predict people with high level needs of pleasure-seeking tend to lack the capacity or willingness for self-control, which, in turn, reduce the likelihood to which people perform long-term goal-relevant consumption behaviors. In other words, strength of pleasure-seeking negatively influences long-term goal-relevant consumption. Thus, we propose our hypothesis as following:

H2: Strength of pleasure-seeking has a negative impact on long-term goal-relevant consumption.

### 2.1.3. The Influence of Expectancy of Long-term Goal Attainment on Long-term Goal-Relevant Consumption

Individuals, typically, balance the dual values of desirability and feasibility in their decision-making process. People select and adopt a goal they would like to achieve by evaluating the desirability and feasibility of goal alternatives available to them. Goal desirability refers to the valence of an action's end state; it reflects the value one attaches to getting a high grade in a course. Goal feasibility refers to the ease or likelihood of attaining the end-state (Perugini & Conner, 2000); it is labeled as "a belief". Beliefs of whether a goal can be attained could determine individuals' willingness to pursue a goal.

Expectancy of goal attainment is defined as the subjective

probability of the achievement of a goal. Expectations of achieving future goal can be related to self-regulation and can affect immediate choices (Nowlis et al., 2004). For example, Oettingen and Mayer (2002) found that, compared with students who have positive fantasies of success, students who have favorable future career expectations invest more efforts to study for the graduation. Moreover, people who are optimistic about the probability of future goal attainment expect relatively more goal-congruent actions to be implemented in the future, which exerts a greater impact on regulating goal pursuit (Zhang et al., 2007).

Given that making a prediction about the outcome of a future event can have a positive impact on the enjoyment people experience while watching that event (Mandel & Nowlis, 2008, we assess consumers with a long-term goal of being physically fit could experience enjoyment when they make a prediction about the attainment of their long-term goal (e.g., possessing a perfect body shape); in turn, the enjoyment consumers experience can increase involvement with, and can strengthen beliefs in the success of the actual long-term goal-directed behaviors. Positive beliefs can induce positive attitude, which implies that people who have a strong belief about their desirable outcomes (high expectancy of goal attainment) tend to perform behaviors related to their desired end states. In short, among consumers with a long-term goal, those with a high level of subjective probability of long-term goal achievement are more likely to perform the actions consistent with the long-term goal. Thus, our hypothesis is expressed as follows:

H3: Expectancy of long-term goal attainment will have a positive impact on long-term goal-relevant consumption.

## 2.2. The Factors Influencing Long-term Goal Commitment

### 2.2.1. Self-Efficacy

Self-efficacy is viewed as an aspect derived from within the individual, and is assessed as 'the conviction that one can successfully execute a given behavior' (Lewis et al., 2009). Self-efficacy focuses on the extent to which people feel capable of performing advocated behaviors that can lead to their desired outcomes. To illustrate, if individuals perceive they have ability and confidence to alter the environment and establish incentives, they will motivate themselves to perform the goal-related behaviors. Moreover, self-efficacy is one of important factors in the process of judgment. People may cease their attempts to reach goals if they believe themselves incapable of adequately performing the necessary behaviors. On a basis of past research, we can find people cannot undertake goal-directed behaviors when they are short of confidence (self-efficacy) in what they can do.

In addition, perceived self-efficacy is a determinant of people's engagement and persistence in effortful tasks, and is one of the antecedents to goal commitment (Bandura & Locke, 2003). Therefore, in the current research, we predict that in-

creasing perceived self-efficacy that can enhance confidence in future goal attainment can increase the extent to which consumers are committed to their long-term goal; in turn, consumers are more likely to engage in long-term goal-related activities. In short, self-efficacy plays a positive role in long-term goal commitment. Our hypothesis is expressed as follows:

H4: Self-efficacy has a positive impact on long-term goal commitment.

Perceived self-efficacy has an essential impact on self-regulation behaviors, such that people high in self-efficacy tend to implement more self-control means necessary to attain their goal for keeping health and losing weight (Hong, 1995). And people high (vs. low) in self-efficacy are more confident in abilities to control themselves, exert great efforts to resist temptations, and show greater perseverance in the face of difficulties and obstacles during the pursuit of goals. Moreover, Kim and Hwang (2001) demonstrate that the majority of one's failure to control one's figure contributes to a lack of self-efficacy they propose self-efficacy is a key component in the execution of self-regulation behaviors, moreover, they find there is positive correlations between self-efficacy and self-regulation behavior in obese college women.

Therefore, in this research, we predict among dieters or people who are pursuing a long-term fitness goal, those high in self-efficacy are more likely to execute self-regulation behaviors necessary to attain their goal and are less likely to be affected by momentary temptations because they believe they have confidence in future goal attainment, which can result in a lower level of needs of pleasure-seeking. In short, we predict that self-efficacy plays a negative role in strengthening needs of pleasure-seeking. Our hypothesis is expressed as follows:

H5: Self-efficacy has a negative impact on strength of pleasure-seeking.

As mentioned before, self-efficacy includes a judgment of one's total capability of performing a task; it is related to expectancy of success (Gist, 1987). Individuals high in self-efficacy possess sufficient perceived ability and confidence to carry out the adaptive response actually. People may continue investing their attempts to reach goals if they believe themselves capable of adequately performing the necessary behaviors for goal attainment.

In addition, individuals' choices are influenced by their perceived likelihood of performing well on a task, that is, if people perceive there are large chances of attaining a goal, they will be more likely to perform behaviors consistent with the goal. It is well acknowledged that self-efficacy is highly correlated with high level self-confidence and self-certainty, which implies that individuals high in self-efficacy are more confident in their abilities to control their behaviors and tend to perceive there is a great likelihood of attaining their long-term goal. In short, we

predict people high in self-efficacy tend to perceive there is a great likelihood of attaining the long-term goal because of their confidence in attaining the long-term goal. Hence our hypothesis is expressed as follows:

H6: Self-efficacy has a positive impact on expectancy of long-term goal attainment.

### 2.2.2. Appearance Self-Esteem

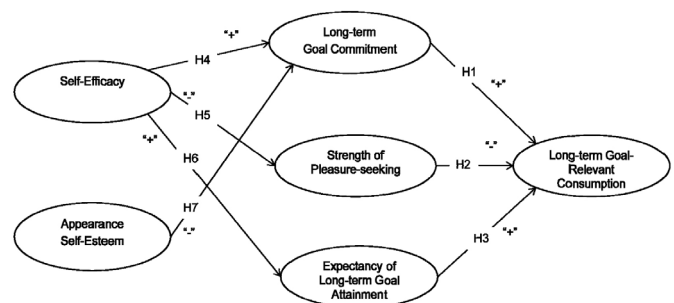
Terror Management Theory (TMT) proposes that when mortality is made salient, people strive for high self-esteem so as to buffer against the overwhelming existential anxiety that results from the awareness of inevitability of death; people put efforts to live up to the standards on which their self-esteem is based (Ferraro et al., 2005; Mandel & Smeesters, 2008).

Appearance self-esteem (ASE), as an important source of self-esteem, refers to the 'self-worth a person derives from his or her body-image and weight' (Argo & White, 2012). Individuals, typically, are driven to pursue or maintain high level ASE, partially because high ASE provides a protective shield against the fear of death (Dommeret al., 2013).

Argo and White (2012) find people low in ASE, compared with those high in ASE, are more chronically concerned with monitoring and regulating food intake. Accordingly, we predict people low in ASE may be motivated to invest more resource to enhance their self-worth associated with body-image and weight, and thus they tend to perform subsequent behaviors consistent with their desirable end states related to maintaining physical appearance, which results in a great focus on long-term goal commitment. Namely, people low in ASE tend to engage in behaviors consistent with their long-term goal associated with maintaining physical appearance because of their increased amount of attention directed toward the physical appearance. Therefore, we predict level of ASE is negatively related to long-term goal commitment. Our hypothesis is expressed as follows:

H7: Appearance self-esteem has a negative impact on long-term goal commitment.

As <Figure 1> showed, we developed a research model on the basis of above hypotheses presented.



<Figure 1> Research Model

### 3. Pretest and Measures

#### 3.1. Pretest

Past research suggests that consumption experiences can indeed produce utilitarian and hedonic value (Fischer & Arnold, 1990). Hedonic consumption is relatively more affective rich, which leads the value of hedonic consumption to be based on internal, subjective, personal, and discretionary standards. Utilitarian consumption is relatively more cognitive rich, which causes the value of utilitarian consumption to be based on external, objective, environmental, and mandatory standards. In this research, we argue one's long-term goal is more associated with utilitarian consumption behaviors.

The pretest of this research aims to identify appropriate objects as our experimental stimuli. Through reviewing relevant literature, we selected four hedonic (hamburger, pizza, chocolate cake, and instant noodle) and four utilitarian objects (vegetable salad, chicken breast salad, diet bar, and sweet potato) with approximately same price.

We asked 20 participants which kind of utilitarian (hedonic) food they would like to consume (avoid) on the food list presented in order to attain their long-term fitness goal. And they were told to write down the name of other food they wanted to consume (avoid) most in their mind. The result showed hamburger (45%) is considered as the food that most impedes fitness goal attainment, which is followed by chocolate cake (20%), pizza (20%), and instant noodle (15%); vegetable salad is the most popular utilitarian object used to achieve the fitness goal (40%), followed by chicken breast salad (20%) sweet potato (20%), and diet bar (20%). Therefore, in the current research, we choose vegetable salad and hamburger as our experimental stimuli, that is, choosing vegetable salad versus hamburger is viewed as one of long-term goal-relevant consumption behaviors.

#### 3.2. Method and Procedure

We employed a questionnaire survey methodology for our data collection. The questionnaire of this research consists two parts. In the first part, participants were asked to read an instruction about long-term fitness goal with some pictures in order to direct their attention toward the long-term fitness goal, which can lead to our expectation that the participants should favor the healthy and utilitarian food option. Subsequently, we referred three items to measure participants' attention put to the fitness goal instruction on a 7-point scale anchored by "not at all (1) — a great deal (7)". The items include "I become interested in dieting through reading this instruction," "I think it is necessary to pursue a long-term fitness goal," "I think keeping physically fit is important through reading this instruction".

In the second part of the questionnaire, participants were told to answer the main survey of this research, which is followed by some demographic information. All the participants were told they were allowed as much time as they need to complete a

questionnaire.

#### 3.3 Measures

##### 3.3.1. Self-Efficacy

We used 8 items to measure perceived self-efficacy on a 7-point scale anchored by "not at all (1) — a great deal (7)". The items include "In order to attain my fitness goal, I will be able to achieve most of my goals that I have set for myself," "In the pursuit of fitness goal, when facing difficult tasks, I am certain that I will accomplish them," "In the pursuit of fitness goal, I think that I can obtain desirable body shape that is important to me," "In the pursuit of fitness goal, I believe I can succeed at most any endeavor to which I set my mind," "In the pursuit of fitness goal, I will be able to successfully overcome many challenges," "I am confident that I can perform effectively on many different tasks used to achieve my fitness goal," "Compared to other people, I can do most tasks very well in order to attain my fitness goal," "In the pursuit of fitness goal, even when things are tough, I can perform quite well" (Chen et al., 2001).

##### 3.3.2. Appearance Self-Esteem

We employed 6 items to measure self-esteem on a 7-point scale anchored by "not at all (1) - a great deal (7)". The items include "I feel satisfied with the way my body looks right now," "I feel others respect and admire my body shape," "I am dissatisfied with my weight (reverse-scored)," "I am pleased with my appearance right now," "I feel good about my body shape," "I feel unattractive (reverse-scored)," (Heatherton & Polivy, 1991).

##### 3.3.3. Long-term Goal Commitment

We used 4 items to measure long-term goal commitment on a 7-point scale anchored by "not at all (1) — a great deal (7)". The items include "I am committed to pursuing my fitness goal," "I care about fitness," "I think to be physically fit is a good goal to shoot for," "I am willing to put forth a great deal of effort beyond what I normally do to achieve my fitness goal," (Lau, 2012; Zhang et al., 2007).

##### 3.3.4. Strength of Pleasure-seeking

Participants were told to report their strength of pleasure-seeking by using a series of 4 items on 7-point scales (1= not at all; 7= a great deal): "My goal of seeking gratification is very strong", "My goal of seeking pleasure is very strong", "My goal of satisfying my impulse is very strong", "My goal of indulging is very strong" (Shiv & Fedorikhin, 2002).

##### 3.3.5. Expectancy of Long-term Goal Attainment

We referred to 5 items to measure expectancy of long-term goal attainment on a 7-point scale anchored by "not at all (1) — a great deal (7)". The items include "It is probable to attain

my long-term fitness goal", "There is a high likelihood to attain my long-term fitness goal", "There is no risk in attaining my long-term fitness goal", "It is very certain to attain my long-term fitness goal", "It is possible to attain my long-term fitness goal by regulating my impulsive behaviors".

3.3.6. Long-term Goal-Relevant Consumption

We used two items to measure the intentions of long-term goal-relevant consumption by using a 7-point scale anchored by "hamburger (1) — vegetable salad (7)". The items include "Which kind of food would you like to consume," and "Which kind of food would you like to buy".

4. Data Analysis and Results

4.1. Data Collection

Past research has shown that women are more concerned

with physical appearance (Crocker et al., 2003), weight and dieting than men (Rozin et al., 2003), self-regulation in choosing food is generally an issue for women. And males' choices of tempting options versus utilitarian options are relatively unaffected by levels of appearance self-esteem, therefore, in this research, we choose female students as our target respondents.

We recruited 300 female participants from C University for the main survey. The original questionnaire written in English was translated into Korean version. 11 incomplete and missing questionnaires were dropped; 289 respondents were retained in this main study.

4.2. Manipulation Check

Firstly, we summed and averaged the three items ( $\alpha = 0.867$ ) used to check participants' attention put to the fitness goal instruction at the beginning of the questionnaire. The mean value of the attention was 4.4567, which suggests the majority of participants have a long-term fitness goal. And we summed and averaged the two items ( $\alpha = 0.893$ ) used to check the intentions

<Table 1> Results of Analyzing Reliability and Validity of Measurement Items

Constructs	Items	Factors					
		1	2	3	4	5	6
Self-Efficacy (SEEF)	SEEF5	.825	.090	.119	-.065	.179	.069
	SEEF6	.819	.152	.145	-.129	.181	.094
	SEEF3	.797	.231	.089	-.038	.222	.133
	SEEF2	.784	.198	.115	-.103	.163	.055
	SEEF4	.706	.220	-.066	.085	.060	.022
	SEEF1	.649	.232	.058	-.096	.348	.129
Goal-Commitment (COM)	COM2	.165	.900	-.019	.051	.076	.080
	COM3	.269	.859	.073	.040	.106	.073
	COM1	.247	.811	-.070	.027	.125	.034
	COM4	.211	.779	-.182	.035	.127	.123
Appearance Self-Esteem (ASE)	ASE3	.110	-.038	.916	-.009	.053	.046
	ASE1	.028	-.137	.857	-.052	-.075	.124
	ASE2	.133	.019	.851	-.015	.226	.021
	ASE4	.083	.035	.791	.025	.286	-.114
Pleasure-Seeking (PLE)	PLE4	-.076	.025	.006	.882	-.096	.010
	PLE2	-.123	-.012	-.134	.853	.045	-.086
	PLE1	-.054	.010	.019	.815	.093	-.070
	PLE3	.027	.100	.045	.784	-.094	-.043
Expectancy of goal Attainment (EXP)	EXP1	.354	.174	.133	-.006	.811	.121
	EXP2	.375	.194	.226	.018	.800	.066
	EXP3	.462	.139	.220	-.081	.673	.074
Goal-Relevant Consumption (GRC)	GRC1	.152	.100	.028	-.098	.063	.923
	GRC2	.143	.147	.046	-.083	.112	.912
Cronbach's $\alpha$		.899	.902	.890	.858	.898	.893
Eigen Value		4.321	3.190	3.166	2.867	2.252	1.832
% of Variance		18.748	13.868	13.766	12.464	9.793	7.965
Cumulative %		18.748	32.616	46.382	58.846	68.639	76.605

of long-term goal-relevant consumption.

Finally, we used one item to measure familiarity with these two objects (vegetable salad and hamburger) to check confounding effect. The seven-point scale was anchored by "not at all (1) —a great deal (7)". The results of one-sample T-test showed that there is no significant familiarity difference between vegetable salad and hamburger (Msalad = 4.955, Mburger= 5.1280, t (1, 289) = -1.829, P > 0.05).

### 4.3. Evaluation of Reliability and Validity

We refined the measures and assessed each construct's convergent validity by using the entire sample (N=289). First, principal component analysis using Varimax rotating method and Cronbach's alpha analysis are carried out to check whether all items of each construct measure the expected concept. The results are shown in <Table 1>. All items for each construct are highly loaded to the component concerned. The Cronbach's alpha values of items of each construct are over 0.6, thus confirming the internal consistency among the measurement items for each.

### 4.4. Hypotheses Testing

#### 4.4.1. Discriminant and Convergent Validity of Constructs

We conducted a confirmatory factor analysis of AMOS 18.0 on a measurement model that incorporate 23observed model items and 6 latent constructs. The measurement model fit indexes were as follows:  $\chi^2 = 522.081$  (df=222, p=0.000), GFI=.853, CFI= .925, TLI=.915, IFI=.926, RMSEA=.073, which indicates an acceptable fit with the hypothesized measurement model.

Fornell and Larcker (1981) suggest that discriminant validity can be established by demonstrating that average variance extracted (AVE) of each construct exceeds the squared correlations between all pairs of constructs. As <Table 2> showed, AVE for each construct was over 0.5 and exceeded the

squared correlations for each pair of constructs, which indicates that all the constructs display discriminant validity. Moreover, as <Table 3> showed, all the C.R values exceed 2, which implies that each construct's convergent validity was affirmed. Together, the results showed that measures have the sufficient psychometric properties for hypothesis testing.

#### 4.4.2. Hypotheses Testing

The results of testing hypotheses showed that all hypotheses (H1-H7) in our research are fully supported. As we predicted, both long-term goal commitment (C.R=3.024, p<. 05) and expectancy of long-term goal attainment (C.R =2.887, p<. 05) have a positive effect on long-term goal-relevant consumption, in support of H1 and H3; pleasure-seeking has a negative impact on long-term goal-relevant consumption (C.R = -2.456, p<. 05), in support of H2. Moreover, as the <Table 4> showed, self-efficacy has a significantly positive impact on both long-term goal commitment (C.R =8.062, p=.000) and expectancy of long-term goal attainment (C.R =10.627, p<.05), thus H4 and H6 are supported; self-efficacy negatively impacts pleasure-seeking (C.R =-2.553, p<.05), in support of H5. In addition, appearance self-esteem has a negative effect on long-term goal commitment, thus H7 is supported.

## 5. General Discussion and Conclusion

### 5.1. Summary

This research investigates the important factors that could facilitate and/or impede consumers' long-term goal-relevant consumption in the pursuit of long-term goal. The results showed both long-term goal commitment and expectancy of long-term goal attainment have positive impacts on long-term goal-relevant consumption; strength of pleasure-seeking exerted a negative impact on long-term goal-relevant consumption. These results indicate consumers who strongly engage in long-term goal com-

<Table 2> Results of Analyzing Correlation Analysis between Constructs

	SEEF	ASE	COM	PLE	EXP	GRC	
SEEF	<i>0.617</i>						
ASE	0.255 (0.065)	<i>0.683</i>					
COM	0.509 (0.259)	-0.007 (0.000049)	<i>0.704</i>				
PLE	-0.181 (0.033)	-0.062 (0.0038)	0.052 (0.003)	<i>0.6105</i>			
EXP	0.708 (0.501)	0.378 (0.143)	0.418 (0.175)	-0.068 (0.0046)	<i>0.7563</i>		
GRC	0.338 (0.181)	0.108 (0.012)	0.281 (0.079)	-0.168 (0.059)	0.287 (0.082)	<i>0.815</i>	

Note: the italic values along the diagonal line are AVE values for the constructs and the values in the bracket means the squared correlations for each pair of constructs.

<Table 3> C.R, and Cronbach's alpha Values

Constructs		Estimate	SE	C.R	P
Self-Efficacy (SEEF)	SEEF5	1.094	.077	14.239	.000
	SEEF6	1.149	.076	15.095	.000
	SEEF3	1.150	.074	15.599	.000
	SEEF2	1.163	.081	14.402	.000
	SEEF4	1.008	.096	10.497	.000
	SEEF1	1.000			
Goal-Commitment (COM)	COM2	COM2	1.177	.068	17.357
	COM3	COM3	1.154	.067	17.152
	COM1	COM1	1.000		
	COM4	COM4	.0985	.070	14.167
Appearance Self-Esteem (ASE)	ASE3	ASE3	1.076	.069	15.668
	ASE1	ASE1	1.000		
	ASE2	ASE2	.934	.066	14.194
	ASE4	ASE4	1.107	.059	18.795
Pleasure-Seeking (PLE)	PLE4	PLE4	.991	.072	13.803
	PLE2	PLE2	.997	.074	13.427
	PLE1	PLE1	1.000		
	PLE3	PLE3	.788	.069	11.481
Expectancy of Long-term goal (EXP)	EXP1	EXP1	1.100	.064	17.077
	EXP2	EXP2	1.148	.064	18.077
	EXP3	EXP4	1.000		
Goal-Relevant Consumption (GRC)	GRC1	GRC1	1.162	.130	8.930
	GRC 2	GRC 2	1.000		

<Table 4> The Results of Hypotheses Testing

		Estimate	S.E.	C.R	P	Accept or not
H1	COM-->GRC	.302	.100	3.024	.002	accepted
H2	PLE-->GRC	-.191	.078	-2.456	.014	accepted
H3	EXP-->GRC	.330	.114	2.887	.004	accepted
H4	SEEF-->COM	.744	.092	8.062	***	accepted
H5	SEEF-->PLE	-.270	.106	-2.553	.011	accepted
H6	SEEF-->EXP	.836	.079	10.627	***	accepted
H7	ASE-->COM	-.145	.053	-2.708	.007	accepted
$R^2$ of COM = .288 $R^2$ of PLE = .028 $R^2$ of EXP = .518 $R^2$ of GRC = .148			$\chi^2=522.081$ (df=222, p=0.000), GFI=.853, CFI=.925, TLI=.915, IFI=.926, RMSEA=.073			

mitment and are high in expectancy of goal attainment are more likely to perform consumption behaviors driven by their long-term goal; those with strong needs of pleasure-seeking are less likely to engage in long-term goal-relevant consumptions.

In addition, we found high level self-efficacy can lead to high-long-term goal commitment and it can result in high level expectancy of goal attainment; however, it can weaken consumers' needs of pleasure-seeking, which reduces the possibility to en-

gage in long-term goal-relevant consumption. Furthermore, the results demonstrate appearance self-esteem has a negative influence on long-term goal commitment, which suggests consumers high in appearance self-esteem are less likely to be committed to long-term goal than those low in appearance self-esteem.



## 5.2. Implication to the Theory and Practice

### 5.2.1. Implication to the Theory

Previous research demonstrated that people strive to manage goals they hold in conflict (e.g., pleasure and health) by considering the trade-offs between these conflicting goals when making behavioral decisions. To illustrate, commitment to a focal goal can engender subsequent behaviors consistent with the focal goal and inhibit any competing goals (Shah et al., 2002). Moreover, people are more likely to be affected by the activated temptations because of inborn needs of pleasure-seeking (Laran & Janiszewski, 2008).

However, our research contributes to the long-term goal literature by documenting that consumers balance the dual values in their decision-making process, including value of an action's end state (long-term goal) and value of subjective probability of reaching such an end state (expectancy of goal attainment). Our results showed consumers are more likely to consume healthy food when they are committed to a long-term fitness goal. Moreover, similar to long-term goal commitment, expectancy of long-term goal attainment plays a significantly positive role in long-term goal-relevant consumption behaviors.

In addition, this research contributes to the vast body of extant literature by finding that individuals' perceived self-efficacy as a personal trait can significantly attenuate the degree to which people seek pleasure though needs of pleasure-seeking are a person's inborn nature.

### 5.2.2. Implication to the Practice

This research provides some practical implications for both marketers and consumers. It is imperative for marketers to develop different product categories or products with various composite functions because of consumers' different goal pursuit. For example, dairy firms had better develop several categories of yoghurt because some consumers may prefer the yoghurt with function of keeping healthy and fit, some others may focus on yoghurt's distinctive taste, and someone may focus on both.

Moreover, marketers can effectively develop different types of advertisements on a basis of results of our research. For instance, given that females tend to take good care of body image and physical appearance, the advertisements emphasizing product's utilitarian functions, such as low calories, will be more effective among female consumers. On the other side, when the reasons or excuses to indulge are justified (e.g., new year celebrations, wedding party), the advertisements emphasizing product's hedonic attributes that bring immediate gratification could be more effective because of human being's inborn nature of pleasure-seeking.

Consumers also can benefit from this research through understanding their confidence in performing necessary actions (self-efficacy) can indirectly impact their long-term goal-relevant consumption (e.g., purchasing utilitarian food items). People per-

ceiving a high subjective probability of reaching a long-term goal can engage in relatively more long-term goal-relevant consumptions by reducing the strength of needs for seeking pleasure. It implies that consumers' autosuggestion by increasing their perceived self-efficacy and goal expectancy is a good way to attain their long-term goals.

### 5.2.3. Limitations and Directions for Future Research

Prior research suggests that depletion of self-regulatory resource can weaken self-control and impairs the pursuit of goal-consistent activities (Fisbach & Dhar, 2005). However, in this research, if participants' regulatory resource is depleted by other irrelevant activities, their needs of pleasure-seeking could be increased though they are high in self-efficacy, which may reduce or even reverse the results of the current research. Therefore, further studies should further examine the moderating effect of ego-depletion in our research model.

Second, Goldenberg et al., (2000) found that individuals high in appearance self-esteem prefer fruit salad to chocolate cake, which is viewed as a means necessary for enhancing self-esteem to defense against mortality anxiety. It suggests appearance self-esteem could lead to a good self-control and decrease the strength of pleasure-seeking. Conversely, Wilcox et al. (2011) demonstrated that the increased feelings of pride related to high self-esteem can lead to self-indulgent behaviors in subsequent tasks. However, the results of our research did not find any linear relationship between appearance self-esteem and pleasure-seeking. Therefore, we especially encourage additional studies investigating the effect of appearance self-esteem on needs of pleasure-seeking.

Third, this research did not consider the role of mood on long-term goal-relevant consumption. Past research showed negative mood can contribute to breakdowns in self-control because the experience of feeling better takes precedence over pursuit of self-regulatory goal; to illustrate, when people are in negative mood, their needs of pleasure-seeking will be stronger than when they are in neutral mood. And positive mood can lead to goal-directed behaviors, regardless of whether individuals' goal is long-term or short-term (Fishbach & Labroo, 2007), such that participants in positive (vs. neutral/ negative) mood tend to engage in goal commitment. Therefore, in the future research, the moderating role of mood should be checked.

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