

THE STUDY ON PLANT-BASED DIET COGNITION AND CONSUMER BEHAVIOR IN TAIWAN

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Abstract

This study collected demographic data regarding consumers' cognition of vegetarian diets and analyze its correlation with consumption motivation and purchase intention. In-depth interviews were conducted with experts to examine topics related to consumers' cognition of vegetarian diets and their consumption motivation and purchase intention. The interview results were then applied to design questionnaire items, which were modified based on relevant literature to enhance the adequacy of item wording and improve the reliability and validity of the study results. The questionnaire was divided into four constructs, namely demographic variables, vegetarian diet cognition, consumption motivation, and purchase intention. The questionnaire adopted a 5-point Likert scale for measurement and was distributed online,

with 338 valid responses returned. SPSS 26 was used to analyze the questionnaire responses using the independent samples t test, one-way analysis of variance, regression analysis, and correlation analysis, thereby verifying the proposed research hypotheses.

The results were as follows: (1). Vegetarian diet cognition was positively correlated with consumption motivation and purchase intention. All interviewees agreed that consumers' cognition of vegetarian diets affect their consumption motivation and purchase intention. (2) Consumers' " cognition of vegetarian diet " and "consumption motivation" can effectively predict " purchase intention ", among which "consumption motivation" is the best predictor of " purchase intention ". (3) Health maintenance was the most prevalent reason of eating vegetarian diets, followed by religion, animal welfare, and environmental protection. (4). Analyzing the effect of demographic variables on vegetarian diet cognition, consumption motivation, and purchase intention revealed that age, educational attainment, occupation, and mean monthly income were non-significant, whereas gender, religion, dietary type (vegetarian or non-vegetarian), reason of practicing vegetarianism, and length of practicing vegetarianism were partially significant.

Key Words: Plant-Based Diet, Cognition of vegetarian diet, Consumption motivation, purchase intention, food innovation

Introduction

Research Background and
Motivation

In recent years, there have been many studies on a plant-based diet, but the definitions of vegetarian diet and plant-based diet are still vague and unclear. There is also scanty literature on a plant-based diet and plant-based diet cognition. This study took consumers' plant-based diet cognition as a theme and con-

ducted expert interviews on plant-based diet cognition. After supplementing the questionnaire scales and literature, questionnaires were sent out to further analyze the correlation between plant-based diet cognition and relevant consumption motivation and consumption intention of a plant-based diet.

Research Purposes

1. To explore the correlation between consumers' plant-based diet cognition and their consumption motivation and consumption intention;

- 2. To understand what plantbased diet cognition is through expert interviews;
- 3. To explore the difference in plant-based diet cognition, consumption motivation, and consumption intention due to different demographic variables;
- 4. To provide the research results as a reference to plant-based diet restaurants or the public to promote the plant-based diet.

Literature Review

Plant-Based Diet Cognition

Only one word different from "vegetarian diet," "plant-based diet" is a new vocabulary that has been popular abroad in recent years. Currently, some studies have gradually

defined the plant-based diet, as shown in Table 1.

In terms of study on cognition, many scholars have defined cognition, as shown in Table 2.

Consumption Motivation

In terms of consumption behaviors, many scholars have defined consumption motivation, as shown in Table 3.

Consumption Intention

In terms of consumption behaviors, many scholars have defined "consumption intention," as shown in Table 4.

Table 1. Summary of Plant-based Diet Literature

Author	Year	definition
Chia-Pei Lin	2020	A plant-based diet is a dietary behavior based on the concept of environ-
		mental protection and health.
Pei-Shan Tsai	2021	People on a plant-based diet have no special reasons or motivations. They
		don't eat meat every meal for many factors. However, they are willing to
		try.
Hsiang-Ju	2021	People on a plant-based diet are not completely vegetarian; they just turn to
Chen		vegetable protein to maintain adequate nutrition.
Pei-Fang Tsai	2021	A plant-based diet is no longer simply an act of religious belief.

Source: summarized by this study

Table 2. Summary of Relevant Cognition Literature

Author	Year	Definition
Neisser	1967	In his book of Cognitive Psychology, Neisser believed that the activities of
		the cognitive system led to and combined with the activities of muscles and
		glands, which we call "behavior."
Kahneman	1979	The presentation way of the decision problem information will affect an indi-
& Tversky		vidual's cognition, judgment, and preference for the way of solving the deci-
		sion.
Bilkey &	1982	Composed of a series of information, a product is divided into intrinsic cues
Nes		(taste, design, fitness) and extrinsic cues (price, brand, quality), both of which
		are the basis for customers to evaluate the product.
Heng-Shan	1996	Cognition is defined as the psychological process of recognizing and under-
Yu		standing events. The result of the cognitive process is belief. Belief can be
		defined as the cognitive evaluation of certain things according to certain spe-
		cific attributes or characteristics.
Hsiu-Chih	1997	Cognition is a person's thinking process, including memory, language, and
Chen,		perception.
Chi-Xun		
Li		
Li-Rung	2020	Due to their different cognitive experiences, individuals confirm what they
Lin		perceive through their own cognitive processes.
Hsiang-Ju	2021	Cognition is the belief about certain situations or things based on a person's
Chen		knowledge, beliefs, and values, that is, the person's beliefs and ideas about
		the objective.

Source: summarized by the study

Table 3. Summary of Literature Related to Consumption Motivation

Author	Year	Definition
Abraham Harold	1943	Human needs are composed of hierarchies from
Maslow		lower to higher levels in proceeding order, namely
		physiological, safety, social, esteem (respect), and
		self-actualization.
Chun-Hsing Chang	1991	Motivation is the intrinsic reason for a person to
		engage in certain activities.
Heng-Shan Yu	1996	Motivation is a state of tension within a person,
		which promotes, maintains, and guides the person's

		behavior toward certain goals.
Sheng-Hsiung Tsaur	2001	When it reaches a certain level, the need will turn
		into a motivation and further promote people to
		follow and meet the need.
Hsuan- Hsuan Ku,	2008	Motivation is caused by the tension of unsatisfied
Chien-Chih Kuo		needs. It is the internal driving force of people.
		People consciously or subconsciously reduce this
		tension and release pressure by meeting needs.
Yu Teng, Yu-Ming	2009	Purchasing motivation is an internal motivation that
Lung		directly drives consumers to carry out certain pur-
		chasing activities, which reflects consumers' psy-
		chological, spiritual, and emotional needs, and is in
		essence the promoter of consumers' purchasing be-
		havior to meet their needs.

Source: summarized by this study

Table 4. Summary of Literature Related to Consumption Intention

Dodds et al.	1991	Purchase intention represents the possibility that consumers will be willing to purchase a certain product.		
Katona	1975	Consumer spending is determined by consumers' purchasing power and willingness and will be affected by consumers' confidence in their future financial situation.		
Hsu, Shih-Chun	1987	Purchase intention refers to a certain transaction behavior of consumers after product evaluation, which is a perceptual response to certain actions taken by attitude toward target things.		
Schiffman and Kanuk	2000	Purchase intention is a measure of the strength of a consumer's intention to purchase a product. The higher the purchase intention, the higher the probability of purchase action.		
Fu-Feng Hsiao	2008	Consumers' consumption intentions and attitudes are deeply affected by consumers' confidence levels.		
Hsiao-Chen Chang	2013	Within the context of consumer behavior, intention refers to purchasing or planning to use the product, and behavior refers to actual purchasing or using the product.		
Wen-Ren Tsai	2016	Purchase intention is the possibility that consumers will be willing to buy.		

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Consumption intention refers to a certain or specific transaction behavior generated after consumers make a comprehensive evaluation and consideration of various categories of products.

Source: summarized by this study

Research Design

This study collected and referred to relevant literature and studies with the documentary analysis method. After obtaining the experts' views on plant-based diet cognition through in-depth interviews with experts, the results were consolidated to design a questionnaire that con-

forms to the research structure. Then, a Questionnaire Survey was used to survey customers in order to verify the research hypotheses.

Research Structure and Hypotheses

Figure 1 illustrates the research structure of this study.

Figure 1. Research Structure

According to the research purpose, relevant literature, and research structure, the following research hypotheses were proposed to explore the correlation between consumers' plant-based diet cognition, consumption motivations, and consumption intentions.

- H1: Consumers with different demographic variables have significant differences in plant-based diet cognition.
- H1-1: Consumers of different genders have significant differences in plant-based diet cognition.
- H1-2: Consumers of different ages have significant differences in plant-based diet cognition.
- H1-3: Consumers with different educational levels have significant differences in plant-based diet cognition.
- H1-4: Consumers with different occupations have significant differences in plant-based diet cognition.
- H1-5: Consumers with different average monthly incomes have significant differences in plant-based diet cognition.
- H1-6: Consumers with different religious beliefs have significant differences in plant-based diet cognition.

- H1-7: Consumers' being vegetarians or not has a significant difference in plant-based diet cognition.
- H1-8: Consumers' varied reasons for vegetarian diets have significant differences in plant-based diet cognition.
- H1-9: Consumers' different lengths of vegetarian diets have significant differences in plant-based diet cognition.
- H2: Consumers with different demographic variables have significant differences in consumption motivation.
- H2-1: Consumers of different genders have significant differences in consumption motivation.
- H2-2: Consumers of different ages have significant differences in consumption motivation.
- H2-3: Consumers with different "educational levels" have significant differences in consumption motivation.
- H2-4: Consumers with different occupations have significant differences in consumption motivation.
- H2-5: Consumers with different average monthly incomes have significant differences in consumption motivation.

- H2-6: Consumers with different religious beliefs have significant differences in consumption motivation.
- H2-7: Consumers' being vegetarians or not has a significant difference in consumption motivation.
- H2-8: Consumers' varied reasons for vegetarian diets have significant differences in consumption motivation.
- H2-9: Consumers' different lengths of a vegetarian diet have significant differences in consumption motivation.
- H3: Consumers with different demographic variables have significant differences in consumption intention. H3-1:

 Consumers of different genders have significant differences in consumption intention.
- H3-2: Consumers of different ages have significant differences in consumption intention.
- H3-3: Consumers with different "educational levels" have significant differences in consumption intention.
- H3-4: Consumers with different occupations have significant differences in consumption intention.
- H3-5: Consumers with different av-

- erage monthly incomes have significant differences in consumption intention.
- H3-6: Consumers with different religious beliefs have significant differences in consumption intention.
- H3-7: Consumers' being vegetarians or not has a significant difference in consumption intention.
- H3-8: Consumers' varied reasons for vegetarian diets have significant differences in consumption intention.
- H3-9: Consumers' different lengths of vegetarian diets have significant differences in consumption intention.
- H4: Consumption motivation and plant-based diet cognition are significantly and positively correlated.
- H5: Plant-based diet cognition and consumption intention are significantly and positively correlated.
- H6: Consumption motivation and consumption intention are significantly and positively correlated.
- H7: Plant-based diet cognition and consumption motivation can effectively predict consumption intention.

Research Scope And Subjects

In this study, 68 valid pre-test questionnaires were collected. According to the analysis results of the pre-test questionnaires, the formal questionnaires were sent out after revision, and a total of 338 valid questionnaires were collected.

Research Tools And Expert Interview

In this study, the five-point scale Likert was used to develop a questionnaire, and the computer statistical software "SPSS 26" was used as the analysis tool. In addition, an expert interview was used to make an in-depth analysis of plant-based diet cognition. The interviewees included six people, including practitioners of the plant-based diet industry and professional teachers of a plant-based diet (the respondents' codes are from A1 to A6). Their seniority range from 9 to 28 years, and they are all senior experts. The research first designed an interview outline, which mainly focused on the following four points: first, understand the differences between a vegetarian diet and a plant-based diet as well as the definition and cognition of a plant-based diet; second, how to promote a plant-based diet to get more profit; third, what factors

will affect the consumption motivation of the plant-based diet; and fourth, whether the plant-based diet cognition will affect the consumption motivation or consumption intention. In the analysis part of the pre-test questionnaire, after the item analysis, regarding Item 7, "I think that as long as it is meat free, a vegetative diet is a plant-based diet, and it does not matter if the seasoning contains animal ingredients," it showed that the significance of F value was 0.936, more than 0.05, and the two-tailed significance was more than 0.05, indicating that the question was not appropriate, so it was deleted. The remaining 12 questions are appropriate.

The pre-test questionnaire has three dimensions, namely, plantbased diet cognition, consumption motivation, and consumption intention. According to Kaiser Meyer Olkin value (KMO) and Bartlett Spherical Test analysis, the results show that the KMO value of the overall scale is 0.83, and the Bartlett Spherical Test result was significant at 0.000, with good validity. In addition, the KMO value of all the dimensions was above 0.7, and the Bartlett Spherical Test result was also significant at 0.000, indicating that the validity was appropriate and the questionnaire was suitable for reliability analysis. Cronbach's α value of the overall scale is 0.942, which is greater than the 0.7 set in this study, indicating very good reliability. In the reliability analysis of each dimension, the Cronbach's a value of Dimension 1 of plant-based diet cognition is 0.859; the Cronbach's α value of Dimension 2 of consumption motivation is 0.882; the Cronbach's a value of Dimension 3 of consumption intention is 0.935. The Cronbach's α values of all are above 0.7, indicating that the reliability of this study is very good.

Data Analysis

Results And Analysis Of The In-Depth Interview

According to the interview results, most experts suggested that the difference between a plant-based diet and a vegetarian diet is that the vegetarian diet is a narrow way of eating compared with the plant-based diet. As for the factors that affect the consumption motivation of a plant-based diet, after summarizing the data from the interviews, it is known that the influencing factors include environmental protection, health, loving animals, and fashion. As for how to promote a plant-based

diet, to encourage respondents to adopt a plant-based diet, people should start with themselves and then influence the people around them. The interviewees confirmed that consumers' plant-based diet cognition will influence their consumption motivation or consumption intention, which is also what this study will explore in the next step.

Reliability And Validity Analysis

In terms of the Kaiser- Meyer-Olkin value (KMO) and Bartlett Spherical Test analysis of the formal questionnaires, the KMO value of the overall scale is 0.943. As for factors of various dimensions, in terms of Dimension 1 of plant-based diet cognition, the KMO value is 0.885, and the Bartlett Spherical Test value is significant at 0.000. In terms of Dimension 2 of consumption motivation, the KMO value is 0.903, and the Bartlett Spherical Test value is significant at 0.000. In terms of Dimension 3 of consumption intention, the KMO value is 0.859, and Bartlett Spherical test value is significant at 0.000. The Cronbach's α value of the overall scale is 0.954. As for reliability analysis of various dimensions, in terms of Dimension 1 of plant-based diet cognition, the Cronbach's a value is 0.886. In terms of Dimension 2 of consumption motivation, its Cronbach's α value is 0.904. In terms of Dimension 3 of consumption intention, its Cronbach's α value is 0.942. Cronbach's α value of all dimensions is over 0.7, indicating that the reliability is very good.

Independent Sample t-test Analysis

The independent sample t-test found that consumers of different genders had significant differences in dimensions of plant-based diet cognition, consumption motivation, and consumption intention. In terms of the gender of the consumers, females performed significantly higher than males in cognition, motivation, and consumption intention. Therefore, H1-1, H2-1, and H3-1 were supported (Table 5).

Vegetarians performed higher in plant-based diet cognition, consumption motivation, and consumption intention than non-vegetarians. Therefore, H1-7, H2-7, and H3-7 were supported (Table 6).

Table 5. Difference analyses of the plant-based diet cognition, consumption motivation, and consumption intention dimensions

Gender of consumers	Number of people	Mean	SD	Significance of F value	P value (two-tailed significance)
Male	151	4.0602	0.73385	- 0.000	0.000
Female	187	4.3574	0.54565	- 0.000	0.000
Male	151	3.6004	0.94165	- 0.992	0.003
Female	187	3.9055	0.92715		
Male	151	3.6565	0.98607	0.006	0.000
Female	187	4.1150	0.88149	- 0.880	0.000
	consumers Male Female Male Female Male Male	consumers people Male 151 Female 187 Male 151 Female 187 Male 151 Male 151	consumers people Mean Male 151 4.0602 Female 187 4.3574 Male 151 3.6004 Female 187 3.9055 Male 151 3.6565	Consumers Mean SD Male 151 4.0602 0.73385 Female 187 4.3574 0.54565 Male 151 3.6004 0.94165 Female 187 3.9055 0.92715 Male 151 3.6565 0.98607	Consumers Mean SD Of F value Male 151 4.0602 0.73385 0.000 Female 187 4.3574 0.54565 0.000 Male 151 3.6004 0.94165 0.992 Female 187 3.9055 0.92715 0.992 Male 151 3.6565 0.98607 0.886

Source: summarized by this study

Table 6. Difference Analysis Of Plant-Based Diet Cognition, Consumption Motivation, And Consumption Intention Based On Consumers' Being Vegetarians Or Not

Variant/dimension	Being a vegetarian or not	Number of people	Mean	SD	Significance of F value	P value (two-tailed significance)
Plant-based diet	Yes	83	4.5833	0.42111	- 0.000	0.000
cognition	No	255	4.1078	0.67240		
Consumption motivation	Yes	83	4.5884	0.58686	- 0.000	0.000
	No	255	3.5026	0.88427		
Consumption inten-	onsumption inten- Yes 83 4.7560 0.4903	0.49034	0.000	0.000		
tion	No	255	3.6348	0.90820	- 0.000	0.000

Source: summarized by this study

One-way ANOVA

After ANOVA analysis and Scheffe's post-test, in terms of plant-based diet cognition, consumption motivation, and consumption intention, it was found that for consumers of different ages, different educational levels, different occupations, and different incomes, no value had reached a significant level (P<0.05), and showed no significant difference. That is, H1-2, H2-2, H3-2, H1-3, H2-3, H3-3, H1-4, H2-4, H3-4, H1-5, H2-5, and H3-5 were not supported.

For people with a belief in Buddhism, their plant-based diet cognition is greater than people with No religious belief (the mean deviation is 0.38528, p=0.001<0.05); for people with a belief in I-Kuan Tao, their plant- based diet cognition was greater than people with No religious belief (the mean deviation is 0.56712, p=0.014<0.05), both the difference of the two religious belief reached a significant level. The religious beliefs mentioned above both reached significant levels. For other religious beliefs, the p>0.05 showed no significance.

In addition, the relationship between religious belief and consumption motivation is as follows: for people with a religious belief in Buddhism, their consumption motivation was greater than people with No religious belief; for people with a religious belief in I-Kuan Tao, their consumption motivation was greater than people with religious beliefs of No, Taoism, and Christianity. Therefore, in terms of religious beliefs in consumption motivation, the significance level is: Buddhism >No, I-Kuan Tao >No, I-Kuan Tao >Taoism, and I-Kuan Tao >Christianity. For other religious beliefs, p>0.05 showed no significance.

For people with a religious belief in Buddhism, their consumption motivation is greater than people with No religious belief; for people with a religious belief in I-Kuan Tao, their consumption motivation is greater than people with religious beliefs in No, Taoism, and Christianity. Therefore, the significance of religious beliefs in terms of consumption motivation is as follows: Buddhism >No, I-Kuan Tao >No, I-Kuan Tao > Taoism, I-Kuan Tao >Christianity. For other religious beliefs, p>0.05 showed no significance. H1-6, H2-6, and H3-6 were tested to be partially supported.

In terms of consumers' plant-based diet cognition, religious belief, health preservation, and animal protection reached a significant impact. In terms of consumption motivations and consumption intentions, religious belief, health preservation,

environmental protection, and animal protection reached a significant impact. Therefore, H1-8, H2-8, and H3-8 were tested to be partially supported.

In terms of plant-based diet cognition, vegetarian length of 11-20 years >vegetarian length of No, (the mean deviation is 0.57299, p=0.004; vegetarian length of more than 20 years >vegetarian length of No, (the mean deviation is 0.54262, p=0.013 <0.05). The above data showed that for people with a vegetarian length of 11-20 years and more than 20 years, their plant-based diet cognition is greater than those with No vegetarian length. For people with other vegetarian lengths, p>0.05 showed no significance.

In terms of consumption motivation, vegetarian length of born vegetarian >vegetarian length of No, (the mean deviation is 1.00404, p=0.010); vegetarian length of 6-10 years >vegetarian length of No, (the mean deviation is 1.09603, p=0.000); vegetarian length of 11-20 years >vegetarian length of No, (the mean deviation is 1.18454, p=0.000); vegetarian length of more than 20 years >vegetarian length of No, (the mean deviation is 1.11587, p=0.000). The above data showed that for peo-

ple with a vegetarian length of born vegetarian, 6-10 years, 11-20 years, and more than 20 years, consumption motivation was greater than people with No vegetarian length. For people with other vegetarian lengths, p>0.05 showed no significance. In terms of "consumption intention," vegetarian length of born vegetarian >vegetarian length of No, (the mean deviation is 1.12714, p=0.002); vegetarian length of 6-10 years >vegetarian length of No, (the mean deviation is 1.14013, p=0.000); vegetarian length of 11-20 years >vegetarian length of No, (the mean deviation is 1.19680, p=0.000); vegetarian length of more than 20 years >vegetarian length of No (the mean deviation is 1.19370, p=0.000).

The above data showed that in this study the relationship between the vegetarian length and consumption intention is: for people with a vegetarian length of born vegetarian, 6-10 years, 11-20 years, and more than 20 years, their consumption intention was greater than people with No vegetarian lengths. For other vegetarian lengths, p>0.05 showed no significance.

The above analysis indicated that in terms of the plant-based diet

cognition, consumption motivation, and consumption intention, consumers' different lengths of being vegetarians were correlated with some of the variants, so H1-9, H2-9, and H3-9 were tested to be partially supported.

Pearson Product-Moment Correlation Analysis

According to the results of Pearson product-moment correlation analysis, plant-based diet cognition and consumption motivation were significantly correlated (p=0.000), with a correlation coefficient of r=0.654 which indicates a moderate and positive correlation. Plant-based diet cognition and consumption intention were significantly correlated (p=0.000), with a correlation coefficient of r=0.659 which indicates a moderate and positive correlation. In addition, consumption motivation and consumption intention were significantly correlated (p=0.000), with a correlation coefficient of r=0.813 which indicates a strong and positive correlation. H4, H5, and H6 were tested and supported, as shown in Table 7.

Table 7. Correlation analysis of plant-based diet cognition, consumption motivation, and consumption intention

		Plant-based diet cognition	Consumption motivation"	Consumption intention
	Pearson Correlation	1	vation	tion
Plant-based diet cognition	Significance (two-tailed)			
Cognition	N	338		
Consumption motivation	Pearson Correlation	0.654**	1	
	Significance (two-tailed)	0.000		
	N	338	338	
Consumption intention	Pearson Correlation	0.659**	0.813**	1
	Significance (two-tailed)	0.000	0.000	
	N	338	338	338

Source: summarized by this study

Regression Analysis Method

The results of regression analysis show that plant-based diet cognition had a positive impact on consumption intention (β =0.326, p=0.000); Consumption motivation had a positive impact on consumption intention (β =0.676, p=0.000). The overall explanatory power is 0.687 (adjusted R-squared) showing that the independent variant had a predictive power against the dependent variant. As plant-based diet cognition and consumption motivation could effectively predict consumption intention, consumption motivation (β =0.676) had the best predictive power for consumption

intention. H7 was tested and supported, as shown in Table 8.

Conclusion and Suggestions

Research Findings

1. Consumers' plant-based diet cognition was positively correlated with consumption motivation and consumption intention. In the expert interviews, all experts agreed that consumers' plant-based diet cognition would affect their consumption motivation and consumption intention toward a plant-based diet. The analysis on questionnaire results showed that plant-based diet cognition was correlated with consumption motivation and consumption in-

tention, which proves that consumers' plant-based diet cognition, consumption motivation, and consumption intention were correlated.

Table 8. Regression Analysis of plant-based diet cognition, consumption motivation, and consumption intention

	Dependent Variant						
Independent variant	Consumption intention						
	β Value	SD	β Distribution	Significance			
Plant-based diet cognition	0.326	0.059	0.222	0.000			
Consumption motivation	0.676	0.041	0.668	0.000			
R-squared	0.830						
Adjusted R-squared	0.687						

Source: summarized by this study

Consumers' plant-based diet cognition and consumption motivation can predict consumption intention. Plant-based diet cognition had a positive impact on consumption intention; consumption motivation had a positive impact on consumption intention. This indicates that plantbased diet cognition and consumption motivation could effectively predict consumption intention, in which consumption motivation had the best predictive power against consumption intention. This shows that the higher the consumers' plant-based diet cognition, the higher their consumption motivation for a plant-based diet, and the higher their consumption intention for a plant-based diet.

3. Difference analyses of con-

sumers' plant-based diet cognition, consumption motivation, and consumption intention based on different demographic variants. Factors, such as age, educational level, occupation, and average monthly income, did not affect the three dimensions. However, gender, religious belief, being a vegetarian or not, vegetarian reason, and vegetarian length affected or partially affected the three dimensions. Vegetarians performed more significantly than meat-eating groups did in the three dimensions, such as plant-based diet cognition. However, in the part of plant-based diet cognition, this study found that long-term vegetarians might not have better cognition in plant-based diet cognition, nonetheless, they had firm motivations and intentions to identify with a plant-based diet. The religious beliefs including Buddhism, Taoism,

and I-Kuan Tao had a better understanding of plant-based diet and a higher motivation and intention. However, in the item of vegetarian reasons, it was found that some meat-eating groups might try to become vegetarians due to religion, health preservation, environmental protection, and animal protection. In combination with the interview analysis, the interviewees mentioned that there were two factors that would affect their consumption intentions and motivations for a plantbased diet, the first is environmental protection, and the second is health preservation.

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