

**FACTORS INFLUENCING CONSUMERS' INTENTION TO BUY  
PROTEIN SUPPLEMENTS IN BANGKOK, THAILAND.**

The image shows a large, faint watermark of the Mahidol University logo in the background. The logo is circular with a blue center containing a golden emblem of a traditional Thai stupa. The outer ring of the logo contains Thai text. Overlaid on this watermark is the author's name.

**VEENUTCH NEERAPAPITUKARN**

**A THEMATIC PAPER SUBMITTED IN PARTIAL  
FULFILLMENT OF THE REQUIREMENTS FOR  
THE DEGREE OF MASTER OF MANAGEMENT  
COLLEGE OF MANAGEMENT  
MAHIDOL UNIVERSITY  
2022**

**COPYRIGHT OF MAHIDOL UNIVERSITY**

Thematic paper  
entitled  
**FACTORS INFLUENCING CONSUMERS' INTENTION TO BUY  
PROTEIN SUPPLEMENTS IN BANGKOK, THAILAND.**

was submitted to the College of Management, Mahidol University  
for the degree of Master of Management  
on  
December 18, 2022



*Veenutch N.*

.....  
Veenutch Neerapapitukarn  
Candidate

*Randall Shannon*

.....  
Assoc. Prof. Randall Shannon,  
Ph.D.  
Advisor

*Sooksan Kantabutra*

.....  
Assoc. Prof. Sooksan Kantabutra,  
Ph.D.  
Chairperson

*Vichita Ractham*

.....  
Assoc. Prof. Vichita Ractham,  
Ph.D.  
Dean  
College of Management  
Mahidol University

*Juthamas Kaewpijit*

.....  
Assoc. Prof. Juthamas Kaewpijit,  
Ph.D.  
Committee member

## ACKNOWLEDGEMENTS

I would like to express my gratitude and thankfulness to Assoc. Prof. Randall Shannon, my advisor, for his inspiration, guidance, and encouragement on this paper. He always follows up and sets a timeline for my paper to be complete. He devotes his effort and time to reading and giving feedback for improvement. Lastly, thank you for all your kind support in managing and advising the study.

Furthermore, thank you to all my respondents who dedicated their time and sincerely gave beneficial results. Additionally, friendship at CMMU is an essential encouragement for a hard time, and I can come up with a better performance once we have shared.

Finally, I would like to thank my family, friends and colleagues for their support and understanding while conducting this research. Without them, I could not be where I am today.

Veenutch Neerapapitukarn

**FACTORS INFLUENCING CONSUMERS' INTENTION TO BUY PROTEIN SUPPLEMENTS IN BANGKOK, THAILAND.**

VEENUTCH NEERAPAPITUKARN 6449089

M.M. (ENTREPRENEURSHIP MANAGEMENT)

THEMATIC PAPER ADVISORY COMMITTEE: ASSOC. PROF. RANDALL SHANNON, Ph.D., ASSOC. PROF. SOOKSAN KANTABUTRA, Ph.D., ASSOC. PROF. JUTHAMAS KAEWPIJIT, Ph.D.

**ABSTRACT**

This research aims to investigate the driver factors that influence customers' intention to purchase protein supplements, the barriers factors that inhibit customers' intention to acquire the protein supplement and examine the differences in perception of protein supplements between product users and nonusers. The methodology for these findings is Quantitative research. The data was collected via an online questionnaire through a convenience sampling technique. The sampling size is 111 respondents from various backgrounds, from the users and nonusers of protein supplements, and distributed to people in the Bangkok area.

According to the research findings, the most important factors influencing customers' purchasing decisions for user groups are the Health benefit, followed by the Taste and Price of the product. The nonuser group influence factors are Health benefits, Price, and Word of mouth. Furthermore, the researcher compared the factors that keep customers from buying protein supplements. For both the user and nonuser groups, Side effects are the most important, followed by Taste and Price, which differ slightly from the nonuser group concerned with Side effects, Price, and Taste.

**KEY WORDS:** Protein Supplements/ Health consciousness/ Word of mouth (WOM)/  
Brand trust/ Side effect

30 pages

## CONTENTS

	<b>Page</b>
<b>ACKNOWLEDGEMENTS</b>	<b>ii</b>
<b>ABSTRACT</b>	<b>iii</b>
<b>LIST OF TABLES</b>	<b>vi</b>
<b>LIST OF FIGURES</b>	<b>vii</b>
<b>CHAPTER I INTRODUCTION</b>	<b>1</b>
1.1 Research Statement and Importance	1
1.2 Research Questions	2
1.3 Research Objective	2
1.4 Expected Benefits	3
<b>CHAPTER II LITERATURE REVIEW</b>	<b>4</b>
2.1 Protein Supplements	4
2.2 Health consciousness	4
2.3 Word of mouth (WOM)	5
2.4 Brand trust	6
2.5 Side effect	6
<b>CHAPTER III RESEARCH METHODOLOGY</b>	<b>7</b>
3.1 Research Design	7
3.2 Data Collection and Sample	7
3.3 Research Instrument	7
<b>CHAPTER IV RESEARCH FINDINGS</b>	<b>8</b>
4.1 Demographic Analysis and General Information of Respondents	8
4.2 Number of user and non-user of protein supplement	10
4.3 The period of consuming protein supplement product	10
4.4 User group: Types of protein supplements which customers consumed	11
4.5 User group: The protein supplement brands which customers use	11
4.6 User group: What customers associate protein supplement consumption with	12

## **CONTENTS (cont.)**

	<b>Page</b>
4.7 User group: The influencer to customer to try protein supplement	12
4.8 User group: The essential factors that influence customers to purchase a protein supplement	13
4.9 User group: What are customers looking for in protein supplements	14
4.10 User group: What factors inhibit customers from purchasing a protein supplement	15
4.11 Nonuser group: What do people associate protein supplement consumption with	16
4.12 Nonuser group: How much you think consuming protein supplements would help you	16
4.13 Nonuser group: What factors inhibit customers from purchasing a protein supplement	17
4.14 Nonuser group: What factor could influence the customer to purchase a protein supplement	18
<b>CHAPTER V CONCLUSION</b>	<b>19</b>
5.1 Conclusion	19
5.2 Recommendations	20
5.3 Limitations and Suggestions for Future Research	21
<b>REFERENCES</b>	<b>22</b>
<b>APPENDICES</b>	<b>27</b>

## LIST OF TABLES

<b>Table</b>		<b>Page</b>
1.1	Demographic Analysis and General Information of Respondents	9





## LIST OF FIGURES

<b>Figure</b>	<b>Page</b>
1.1 Number of user and non-user of protein supplement	10
1.2 The period of consuming protein supplement product	10
1.3 User group: Types of protein supplements which customers consumed	11
1.4 User group: The protein supplement brands which customers use	11
1.5 User group: What customers associate protein supplement consumption with	12
1.6 User group: The influencer to customer to try protein supplement	12
1.7 User group: The essential factors that influence customers to purchase a protein supplement	13
1.8 User group: What are customers looking for in protein supplements	14
1.9 User group: What factors inhibit customers from purchasing a protein supplement	15
1.10 Non-User group: What do people associate protein supplement consumption with	16
1.11 Non-User group: How much you think consuming protein supplements would help you	16
1.12 Non-User group: What factors inhibit customers from purchasing a protein supplement	17
1.13 Non-User group: What factor could influence the customer to purchase a protein supplement	18



# CHAPTER I

## INTRODUCTION

### 1.1 Research Statement and Importance

People nowadays have a higher level of health awareness and healthcare knowledge, allowing them to better care for themselves and their loved ones. As a result, living a healthy life has become a top priority for today's consumers, according to Euromonitor International's 2020 report, and 75% of customers who want to improve their immunity said supplements and vitamins are essential to their overall health and nutrition. Moreover, during the Covid 19 pandemic, the social media platform raised public health awareness and behavioral change (Abuhashesh, 2021). Sales of vitamins and dietary supplements increased as a result of the Covid 19 pandemic, which started in November 2019, as people sought additional protection from viral infection and disease under the belief that supplement products might have positive health effects or immune-boosting effects if consumed (Lordan, 2021). As a result, the dietary Supplements market will reach 163.12 billion USD. by 2022 (Bloomberg business, 2022). The Euromonitor reported that Thailand's dietary supplement and vitamins market in 2016 was 53,810 million baht and predicted an increasing sale to 74,247 million baht in 2021. The growing health concerns amongst consumers and increasing awareness are the primary drivers of the Asia Pacific supplements market. In addition, the aging population, spending patterns on healthcare products, and lifestyles also increase consumption. As a result, the revenue of dietary supplements is forecast to grow to 991.09 billion USD., or an increase for 200 % in 2030 (Grand View Research, 2021). One of the most prevalent nutrient supplements in 2022 is the Protein Supplement. Customers believe protein is an essential nutrient that aids in muscle building, cell repair, and the maintenance of appropriate enzymes and hormones. Furthermore, protein powder promotes weight loss and muscle growth (Leonard, 2018). According to Fortune Business Insights in 2021, The global protein supplements market will grow from 14.05 billion USD. in 2021 to 25.91 billion USD. by 2028. Moreover, Thailand's protein

supplement product market was as big as 3,323 million baht, with about 5.5% growth from the previous year. In the next five years (2022 – 2026), the market will grow at 5.03%, reaching 4,247 million baht in value in 2026. (Euromonitor International, 2020). According to market trends, many companies began to manufacture and sell protein supplements to customers. As a result, there are numerous protein supplement competitors on the market. As a necessary consequence, learning more about people's protein consumption, the product the customer wants, and the factors influencing the purchase of protein supplements may lead to competitive business advantages for the company. Therefore, the researcher is expected to investigate the factors that influence and inhibit customers' intention to purchase protein supplements, as well as gain a better understanding of customer behavior regarding protein supplement consumption in Bangkok, Thailand, between product users and nonusers.

## **1.2 Research Questions**

1. What drivers and barrier factors influence consumers' intention to purchase protein supplements?
2. What are the customer behaviors in protein supplement consumption?
3. What are the differences in perception of protein supplements between product users and non-users?

## **1.3 Research Objective**

1. To investigate the drivers and the barriers factors that influence customer's intention to purchase protein supplements.
2. To examine the customer behaviors in protein supplement consumption?
3. To survey the differences in perception of protein supplements between product users and non-users.

## 1.4 Expected Benefits

From conducting research, we will understand more about users' and nonuser's perceptions of protein supplement products and comprehend the driver factors that influence customers' intention to purchase protein supplements, the barriers factors that inhibit customers' intention to acquire the protein supplement, the expectations from customers on protein supplement products, and the influencer who affect the purchase decision. Moreover, we will perceive what factors could influence nonusers to purchase a protein supplement. This information will help the protein supplement company and sellers understand more about their customers, serve suitable products, and focus more on the primary factors influencing customer purchasing to gain a competitive business advantage and more profit in the market.



## **CHAPTER II**

### **LITERATURE REVIEW**

#### **2.1 Protein Supplements**

Protein powder is a nutritional supplement containing essential amino acids that help promote health in many aspects, such as building muscle, repairing body cells, producing enzymes and hormones, Etc. (Leonard, 2018). Protein supplements help maintain muscle mass and prevent muscle mass loss (Alshamari, 2022). Moreover, the efficacy of protein-rich diets improves weight loss maintenance. It reports beneficial effects in the short term of losing weight (Magkos, 2020), In overweight or obese people, whey protein supplementation was compared to a placebo or a control group. Differences in body composition, weight, waist circumference, total fat mass, and lean body mass were the primary outcomes (Wirunsawanya, 2018). Furthermore, protein supplements are intended to function as complete meal replacements, where they are the consumer's sole source of nutrition sustenance. In terms of consumption, these products require the consumer to mix a specific amount of powder with a specific amount of water to make a beverage with specific levels of critical nutrients (McGuffey, 2022). However, the market offers a wide range of protein powders, including whey protein and plant-based powders. Protein supplements help to promote health benefits in a variety of ways. Protein supplements are most popularly used among athletes and active adults who want to gain muscle mass, improve exercise recovery, and improve performance (Pasiakos, 2014).

#### **2.2 Health consciousness**

Health consciousness refers to individuals who tend to undertake their health actions (Becker and Maiman, 1975). According to the World Health Organization (WHO), health consciousness is defined as total physical, mental, and social well-being, rather than purely the absence of disease or infirmity (WHO, 2020). There are four key

components of health consciousness: more serious health concerns, caring about health, seeking healthcare information, and valuing healthy conditions (Gould, 1988). A health-conscious individual, as stated in Gould's aspect, frequently finds a source of healthy and fresh food or supplements containing nutrition and vitamins. Furthermore, consumers' shopping behavior for healthy products is impacted by their level of health consciousness (Lockie, 2002). Furthermore, according to 2020 research in Slovakia, health consciousness rose dramatically during the Covid 19 pandemic, women are more health-conscious than men, and older consumers are more health-conscious than younger consumers (Cvirik, 2020).

### **2.3 Word of mouth (WOM)**

The consumer's intention to discuss the recommended products and services with other customers after purchasing them is referred to as word of mouth (Zeithaml, 1996). The Word of the Month is determined by a consumer's level of satisfaction with a product or service, which leads to recommendations for others (Maxham, 2001). Furthermore, the word of the month influences the purchasing decisions of customers who have successfully purchased the product (Gulfraz, 2022). Consumers who are unfamiliar with a product or its outcome frequently seek additional information in order to reduce uncertainty and eliminate risks (Jeong, 2015). Word of mouth is one of the essential communication strategies to promote brands and products (Lopez & Sicilia, 2014), which helps customers to reach buying decisions and helps customers to avoid doubt about purchasing. The Word of the month's main advantage is its credibility with customers (Helm, 2000). According to research in 2015, Protein supplement satisfaction had a positive effect on word-of-mouth intention, and word-of-mouth intention had a positive effect on repurchase intention. Furthermore, the findings revealed that customer intake satisfaction and repurchase intention were completely mediated by word-of-mouth intention (Kim, Han-Na & Na, Kwan-Sik, 2015).



## **2.4 Brand trust**

Brand trust can be defined as consumers' willingness to rely on a brand because they have belief in the brand's dependability, honesty, and altruism (Wang, 2002). Brand trust depends on consumers' belief that the brand will provide the product value and reliability, which helps consumers maintain satisfaction and brand trust in the product. If consumers feel the sincerity of the business to sell the brand products, it will increase consumers' willingness to repurchase them (Ballester, 2003). Furthermore, customers prefer to repurchase the same brand over an alternative because the brand makes them feel confident or satisfied, and the brand can solve their problems (Sunyansanoa, 2013).

## **2.5 Side effect**

For the majority of adults, a protein supplement is probably safe when used as directed. The negative effects of excessive doses, however, can include increased bowel movements, acne, nausea, thirst, bloating, decreased appetite, fatigue, and headaches (WebMD, 2009). A 0.8 gram per kilogram of body weight recommended daily allowance (RDA). Active people, particularly those attempting to gain muscle mass, may require more. For the average person, aim for no more than 2 gm/kg, which works out to roughly 125 grams per day for a 140-pound person (Harvard Health Publishing, 2020). A high-protein diet may cause your kidneys to work more to filter your blood. Over time, this increased workload causes kidney damage or worsens kidney disease (Landau, 2013). However, some research suggests that the increased filtering work is not harmful to your kidneys. In addition, for people who do not have other health conditions, a high-protein diet may not increase the risk of kidney damage. Additionally, using a protein powder based on milk may cause gastrointestinal discomfort in people who are lactose intolerant or allergic to dairy. Some protein supplements contain a lot of calories and carbohydrates. As a result, there is a possibility of weight gain and a dangerous increase in blood sugar (Martin, 2005).

## **CHAPTER III**

### **RESEARCH METHODOLOGY**

#### **3.1 Research Design**

According to the research questions, this research aims to investigate the driver factors that influence customers' intention to purchase protein supplements, the barriers factors that inhibit customers' intention to acquire the protein supplement and examine the differences in perception of protein supplements between product users and nonusers. The recommended methodology for these findings is Quantitative research. This type of research will examine customers' opinions about protein supplements and what influences a user and nonusers on purchase decisions. The interview questions will be related to Health conscious, Brand trust, Word of the Month (WOM), and Side effect conscious.

#### **3.2 Data Collection and Sample**

The data collection will be conducted via an online questionnaire, using Google Form Online through online channels such as Facebook and line application by a convenience sampling technique. The sampling size is 111 respondents from various backgrounds (age, gender, education, and monthly income), from the users and non-users of protein supplements, and distributed to people in the Bangkok area.

#### **3.3 Research Instrument**

The researcher's instrument consists of two parts. Part I of the research instrument consists of questions about the potential influencing purchase intention. Part II of the research instrument consists of the interviewee's age, gender, education, and monthly income.



## **CHAPTER IV**

### **RESEARCH FINDINGS**

In the fourth chapter, the data for the project was collected by conducting primary research by floating an online questionnaire. The survey was designed and conducted using Google Forms. The questionnaire gave various choices to the survey taker to understand customers' beliefs and purchase behavior. The researcher will analyze the quantitative questionnaire methodology by separating it into two groups: the protein supplement users' group and the non-users' group. The researcher had a total of 111 respondents. The first group is the protein supplement users, comprising 82 people who have regularly consumed any protein supplements. The second group is the non-user, consisting of 29 people who have not consumed protein supplements until the present. Furthermore, the researchers established the interview questions for group A (Protein supplement users) based on the mentioned variables: Health consciousness, Word of mouth (WOM), Brand trust, and Side effects. In this chapter, the researcher will gain the opinion of respondents and how strongly each variable in detail affects purchasing intention for protein supplements. Also, we will know the perception of group B (non-users) about protein supplements, factors that inhibit their purchase and the factors that could influence non-user to purchase the protein supplement.

#### **4.1 Demographic Analysis and General Information of Respondents**

The sample size was 111 respondents and included 46 males (41.4%), 64 females (57.7%), and prefer not to say 1 person (0.9%). The age distribution of participants is shown below.

**Table 1.1 Demographic Analysis and General Information of Respondents**

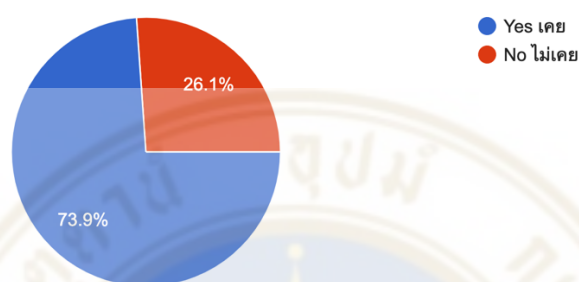
General Information		Frequency	Percentage
Age	18 - 24	6	5.4
	25 - 34	63	56.8
	35 - 44	36	32.4
	45 - 54	3	2.7
	55 - 64	3	2.7
General Information		Frequency	Percentage
Gender	Female	64	57.7
	Male	46	41.4
	Prefer not to say	1	0.9
Education	PhD / Doctoral degree	11	9.9
	Master's degree	46	41.4
	Bachelor's degree	50	45
	Diploma	1	0.9
	Highschool	1	0.9
	Prefer not to say	2	1.8
	Monthly Income	Under 15,000 THB	5
Income	15,000 - 20,000 THB	7	6.3
	20,001 - 30,000 THB	15	13.5
	30,001 - 40,000 THB	11	9.9
	40,001 - 50,000 THB	14	12.6
	Over 50,000 THB	50	45
	Prefer not to say	9	8.1

The majority of participants hold a bachelor's degree, 50 people (45%), followed by a master's degree from 46 people (41.4%). Most participants have a monthly income over 50,000 THB, which are 50 people (45%), followed by 40,001-50,000 THB, which are 14 people (12.6%).

## 4.2 Number of user and non-user of protein supplement (n=111).

The majority of participant has experience consuming protein supplement product 82 people (73%), while 29 people (26.1%) have never consumed protein supplement products.

Have you ever been using protein supplements? คุณเคยซื้อผลิตภัณฑ์อาหารเสริม โปรตีนหรือไม่  
111 responses

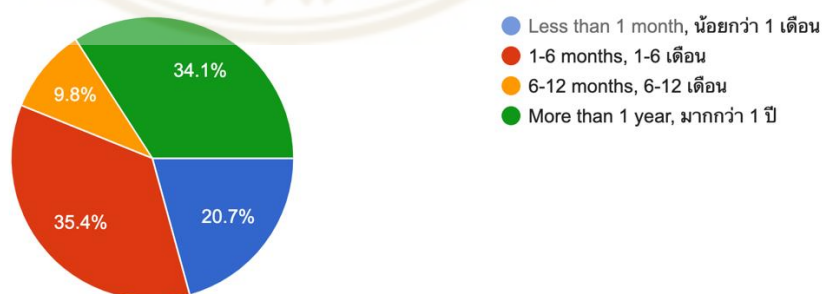


**Figure 1.1** Number of user and non-user of protein supplement

## 4.3 The period of consuming protein supplement product (n=82).

Most of the user group has used the protein supplement product for 1-6 months (35.4%, 29 people), followed by more than 1 year (34.1%, 28 people), less than 1 month (20.7%, 17 people), and 6-12 months (9.8%, 8 people).

How long have you been taking protein supplements? ระยะเวลาที่คุณทานผลิตภัณฑ์อาหารเสริม โปรตีน  
82 responses



**Figure 1.2** The period of consuming protein supplement product

#### 4.4 User group: Types of protein supplements which customers consumed (n=82).

Whey protein (68.3%) and plant-based protein (62.2%) are the most popular protein supplement products among customers.

What kind of protein supplements do you use? คุณเคยทาน ผลิตภัณฑ์อาหารเสริม โปรตีนประเภทใด  
คำตอบ 82 ข้อ

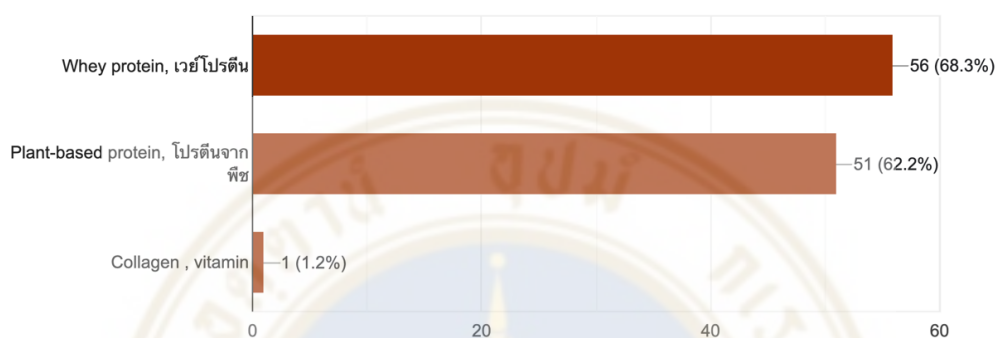


Figure 1.3 User group: Types of protein supplements which customers consumed

#### 4.5 User group: The protein supplement brands which customers use (n=78).

There are many protein supplement brands in the market, and the most favorable protein supplement brand is Nutrilite (62.8%), followed by Plantae 24.4%, and Optimum Nutrition Whey 16.7%.

Which brand of protein supplement do you use? คุณเคยใช้ผลิตภัณฑ์อาหารเสริม โปรตีนยี่ห้ออะไร  
78 responses

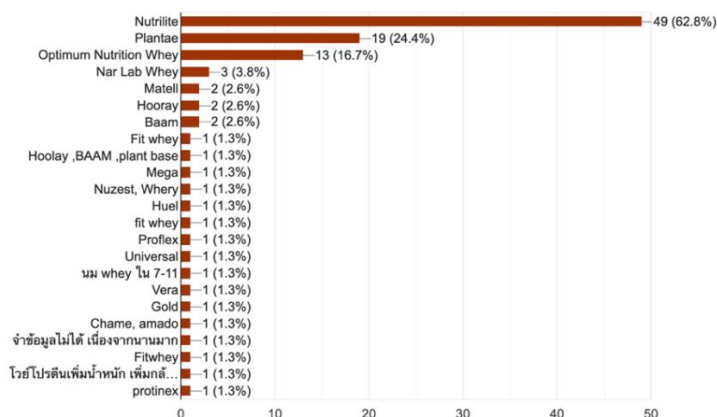
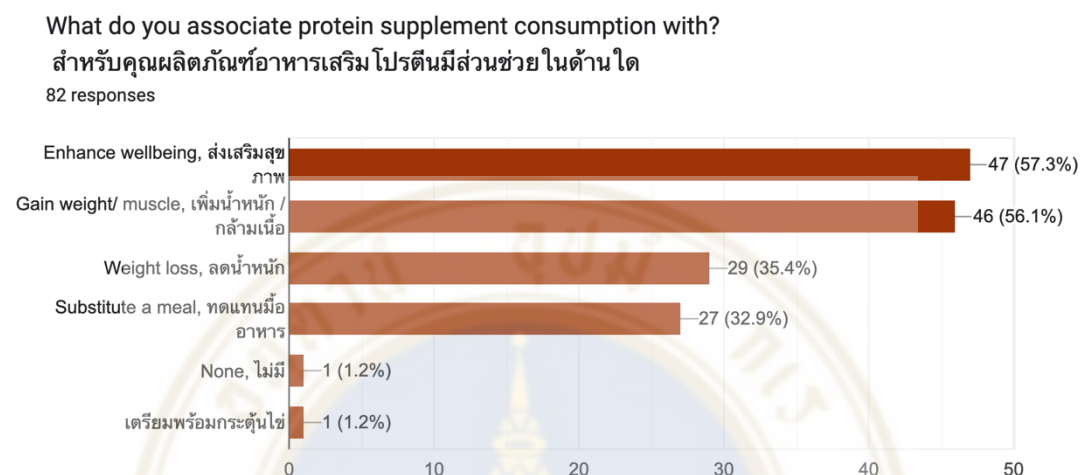


Figure 1.4 User group: The protein supplement brands which customers use

#### 4.6 User group: What customers associate protein supplement consumption with (n=82).

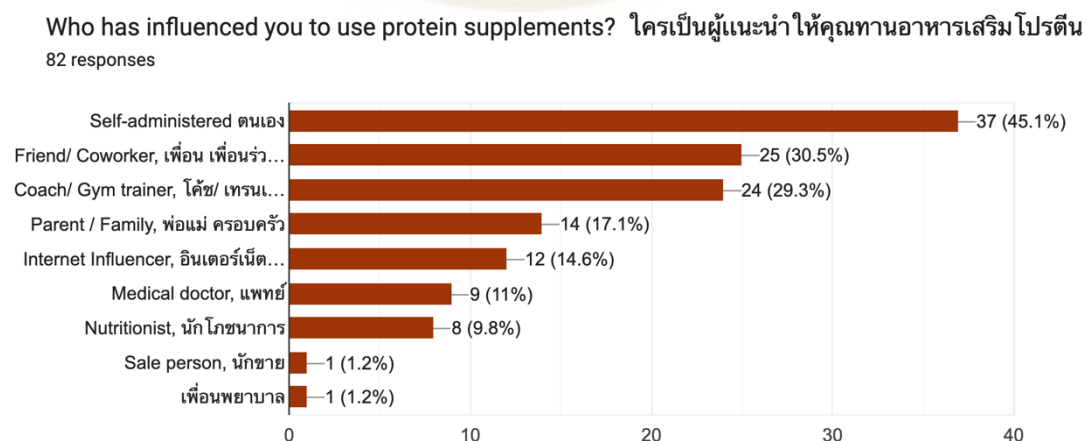
The user most associate protein supplement consumption with Enhance wellbeing (57.3%), Gain weight or muscle (56.1%), and weight loss (35.4%).



**Figure 1.5** User group: What customers associate protein supplement consumption with

#### 4.7 User group: The influencer to customer to try protein supplement (n=82).

Self-administered was the main source of influence for protein supplement users (45.1%), followed by friends and coworkers (30.5%), coaches, and gym trainers (29.3%).

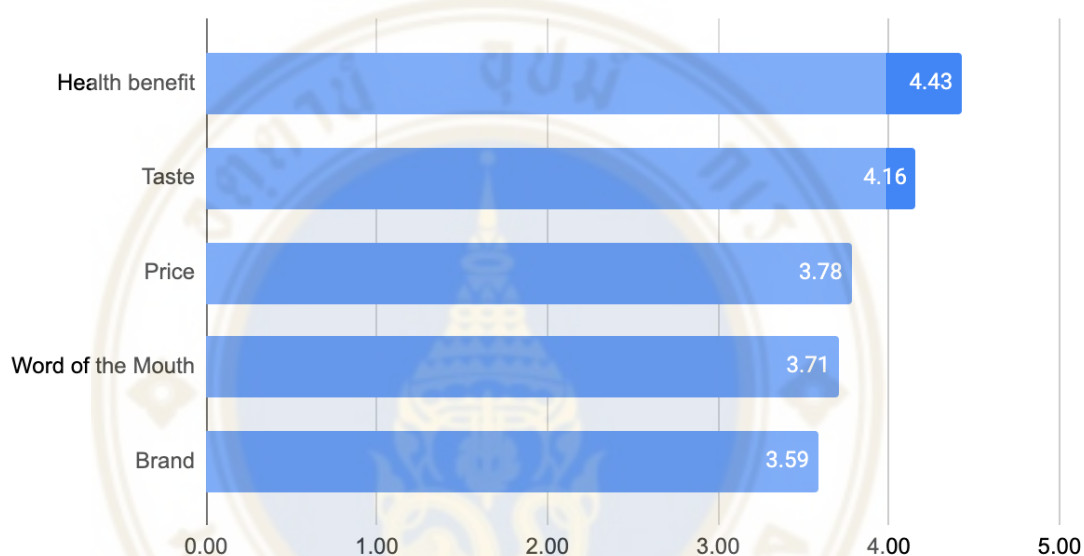


**Figure 1.6** User group: The influencer to customer to try protein supplement

#### 4.8 User group: The essential factors that influence customers to purchase a protein supplement (n=82).

Out of 5 scores, the most crucial factor that influences customers to purchase a protein supplement is the health benefit (4.43 score) with a mode score of 5, followed by taste (4.16 score) with a mode score of 5, and price (3.78 scores) with the mode score of 4.

The essential factors that influence customers to purchase a protein supplement (n=82).



Score	Health benefit	Taste	Price	Word of the Mouth	Brand
Average	4.43	4.16	3.78	3.71	3.59
Mode	5	5	4	4	4

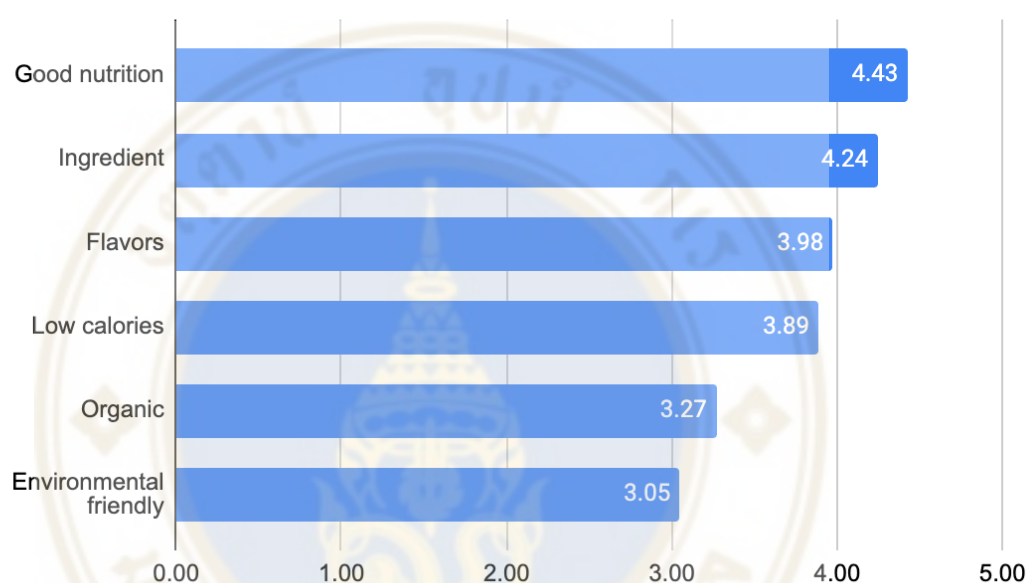
**Figure 1.7 User group: The essential factors that influence customers to purchase a protein supplement**



#### 4.9 User group: What are customers looking for in protein supplements (n=82).

Out of 5 scores, most of the customers were looking for good nutrition of the protein supplement products (4.43 scores) with a mode score of 5, Ingredients (4.24 scores) with a mode score of 5 and followed by flavors (3.98 scores) with a mode score of 4.

What are customers looking for in protein supplements (n=82).



Score	Good nutrition	Ingredient	Flavors	Low calories	Organic	Environmental friendly
Average	4.43	4.24	3.98	3.89	3.27	3.05
Mode	5	5	4	4	3	3

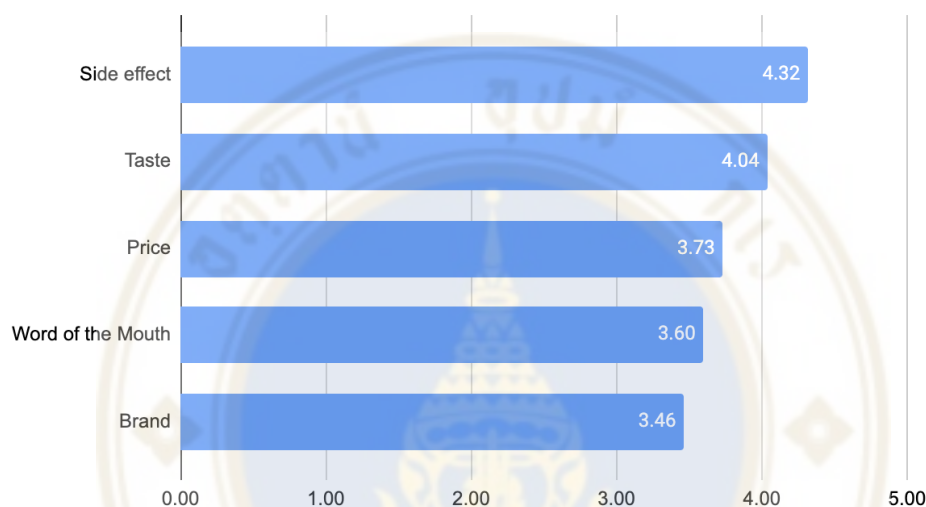
**Figure 1.8 User group: What are customers looking for in protein supplements**



#### 4.10 User group: What factors inhibit customers from purchasing a protein supplement (n=82).

The most important factor inhibiting users from purchasing protein supplement products is the side effect of a 4.32 score out of 5 with a mode score of 5, followed by a taste 4.04 score with a mode score of 5 and price 3.73 score with a mode score of 4.

What factors inhibit customers from purchasing a protein supplement (n=82).

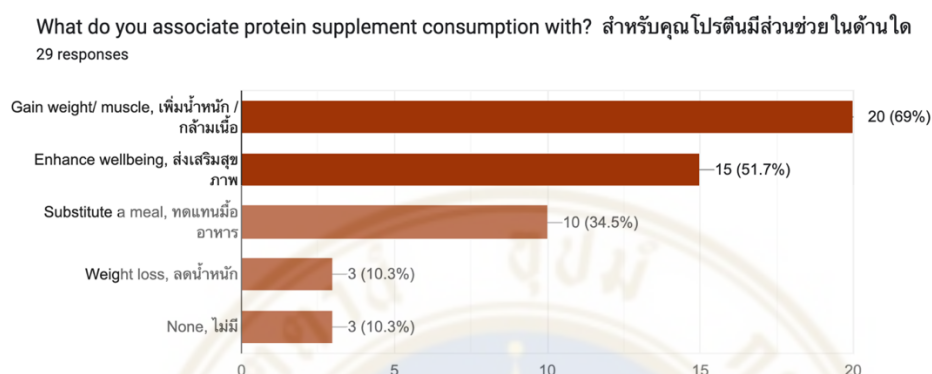


Score	Side effect	Taste	Price	Word of the Mouth	Brand
Average	4.32	4.04	3.73	3.60	3.46
Mode	5	5	4	4	4

**Figure 1.9 User group: What factors inhibit customers from purchasing a protein supplement**

#### 4.11 Nonuser group: What do people associate protein supplement consumption with (n=29).

Most non-user associate protein supplement consumption with gaining weight or muscle (69%), improved wellbeing (51.7%), and substitute a meal (35.4%).

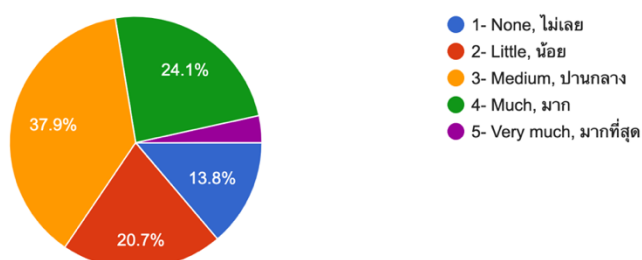


**Figure 1.10 Non-User group: What do people associate protein supplement consumption with**

#### 4.12 Nonuser group: How much you think consuming protein supplements would help you (n=29).

The score of how much the non-user group believes consuming protein supplements would help them shows that the majority of non-users believe protein supplements would help them at the medium level (37.9%), followed by much (24.1%) and little (20.7%).

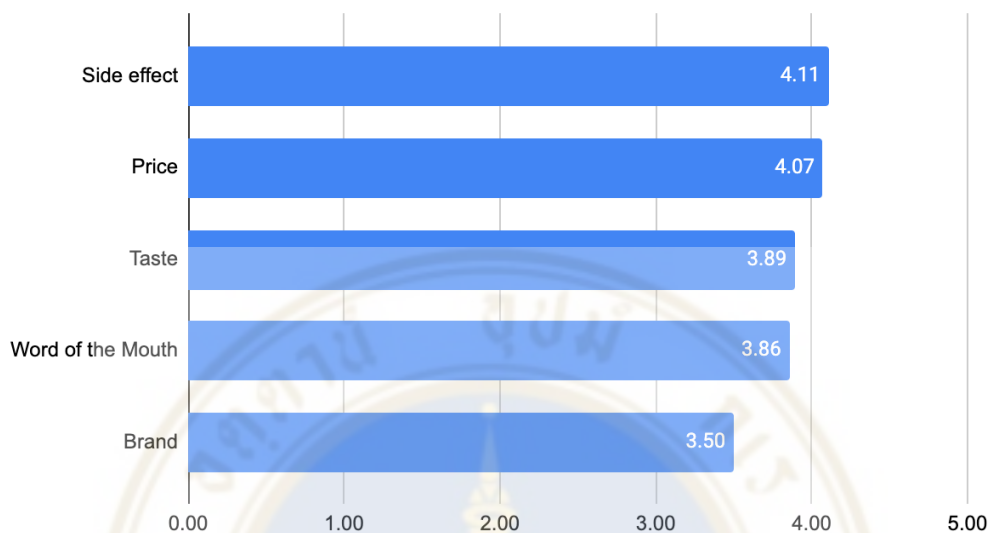
Please score how much you think consuming protein supplements would help you. คุณคิดว่าผลิตภัณฑ์อาหารเสริม โปรตีนช่วยคุณได้มากเพียงใด  
29 responses



**Figure 1.11 Non-User group: How much you think consuming protein supplements would help you**

### 4.13 Nonuser group: What factors inhibit customers from purchasing a protein supplement (n=29).

What factors inhibit customers from purchasing a protein supplement (n=29).



Score	Side effect	Price	Taste	Word of the Mouth	Brand
Average	4.11	4.07	3.89	3.86	3.50
Mode	5	4	4	5	3

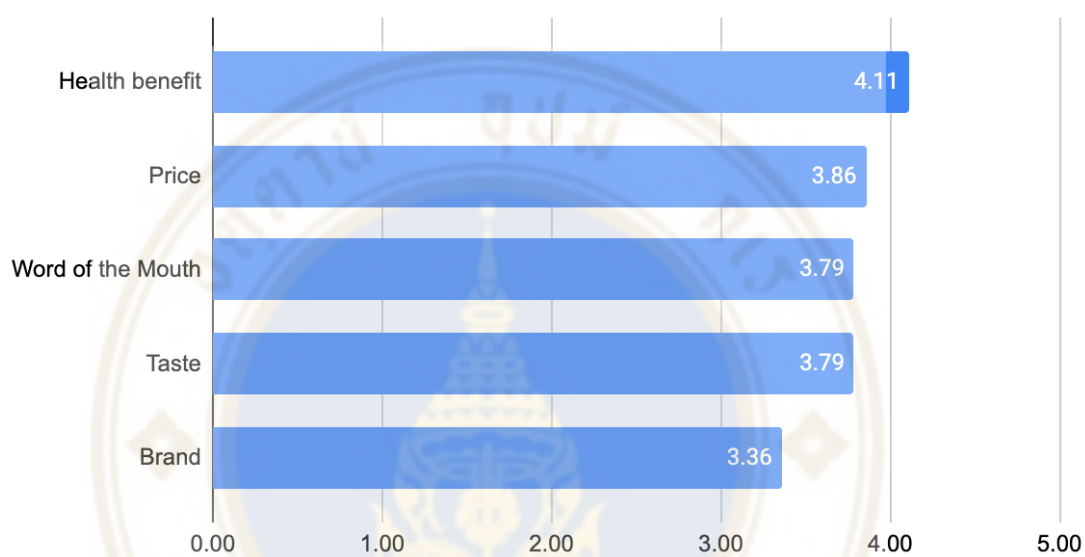
**Figure 1.12 Non-User group: What factors inhibit customers from purchasing a protein supplement**

The essential factors that inhibit non-user from purchasing protein supplement products are the side effect, with an average score of 4.11 and mode score of 5, followed by price, with an average score of 4.07 scores, mode score of 4 out of 5, and taste average score 3.89 scores out of 5, a mode score 4.

#### 4.14 Nonuser group: What factor could influence the customer to purchase a protein supplement (n=29).

The most crucial factor that could influence non-user to purchase a protein supplement is the health benefit (4.11 score) with a mode score of 4, followed by price (3.86 scores), Word of mouth, and taste with the same score (3.78 scores).

What factor could influence customer to purchase a protein supplement (n=29).



Score	Health benefit	Price	Word of the Mouth	Taste	Brand
Average	4.11	3.86	3.79	3.79	3.36
Mode	4	4	4	4	3

**Figure 1.13 Non-User group: What factor could influence the customer to purchase a protein supplement**

## **CHAPTER V**

### **CONCLUSION**

#### **5.1 Conclusion**

This research aims to investigate the factors that influence customers' purchasing decisions, the factors that prevent customers from purchasing protein supplement products in both user and non-user groups, and the differences in perception of protein supplements between product users and non-users. According to the research findings, the most important factors influencing customers' purchasing decisions for user groups are the Health benefit, followed by the Taste and Price of the product. The non-user group influence factors are Health benefits, Price, and Word of mouth. As a result, to attract potential customers, protein supplement sellers should primarily provide information about how their products improve health and well-being. Furthermore, emphasize the flavors of the product because it is one of the most important factors influencing a customer's purchase decision, followed by the reasonable price. The non-user group is also interested in customer feedback or word of mouth. If the protein supplement seller can provide complete information about their interest, it is more opportunity for the customer to purchase the product.

Moreover, the researcher compared the factors preventing customers from purchasing protein supplements. Side effects are the most important for user and non-user groups, followed by Taste and Price, which differ slightly from the non-user group concerned with Side effects, Price, and Taste. As a result, the protein supplement seller should be aware of the product's side effects on the customer or demonstrate how the protein supplement product saves their health, how good the Taste is, and how affordable it is. Sellers should focus on promotion to attract new customers because non-users are more concerned with quality and price.

Furthermore, by conducting research, the researcher has learned more about how users and non-users perceive protein supplements. For example, the fact that Whey protein is consumed by the majority of the user group, followed by plant-based protein,

is associated with the user protein supplement consumption perception of Enhance well-being and Gaining weight or muscle more than weight loss. Surprisingly, most participants began to consume the product independently without being influenced by others. The primary influence for users was self-administered, implying that many people are interested in and searching for a good protein supplement product to consume on the market. Moreover, consumers prioritize the product's nutrition, ingredients, and flavors if they choose a protein supplement. More insight of user from the period of the user using the product, the most frequent period user using the protein product is 1-6 months. This demonstrates that protein supplements can attract many new customers nowadays, with the group who have used them for more than a year coming in second. This assumes that people who try supplements will use the products for a year. Furthermore, most non-users do not purchase protein supplements because they believe they will only help them on a moderate level. As a result, if we provide more information on how well the protein supplement enhances their well-being at a reasonable price, and with numerous reviews from previous customers, we can increase the possibility of consumers' Intention to Buy Protein Supplements.

## **5.2 Recommendations**

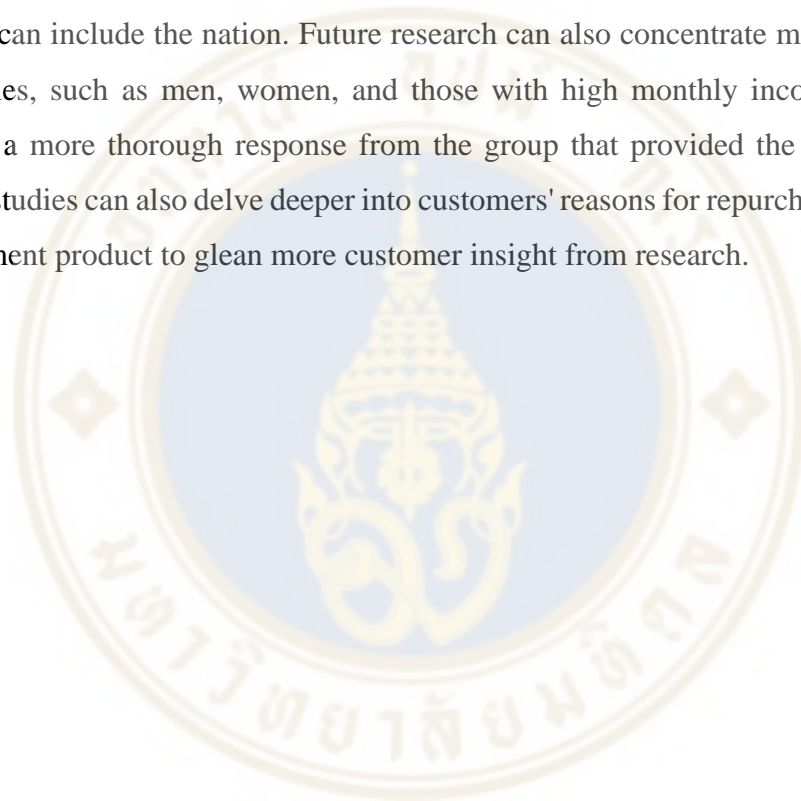
In conclusion, the protein supplement market is overgrowing, and many competitors are in the market. Therefore, each brand should know insight into what customers want to serve the right product to customers. Both groups, users and non-user, associate protein supplement products with enhancing well-being, increasing weight, and gaining muscle, so protein supplement products should serve the customers' needs. Moreover, the user group is most concerned with their health and the product's taste than the price. Therefore, the company should focus on the health benefit and always take advantage of the taste of the products. On the other side, if the business wants to attract new users, it should focus on the health benefit and a reasonable product price for new customers. One of the most surprising findings is that many women, not just men, consume whey protein to build muscle. However, fewer products focus on improving weight and strength for women in the market, which could be a new



differentiation if the protein supplement company produce to product to serve these target customers in the market.

### **5.3 Limitations and Suggestions for Future Research**

This study has time, sample size, and sampling method limitations. A larger sample size can improve the outcome's accuracy. In Thailand, the researcher can broaden the geographic scope of the sample. Because of the ease of e-commerce, future studies can include the nation. Future research can also concentrate more on particular categories, such as men, women, and those with high monthly incomes, so we can receive a more thorough response from the group that provided the most responses. Future studies can also delve deeper into customers' reasons for repurchasing the protein supplement product to glean more customer insight from research.





## REFERENCES

- Abuhashesh, M. Y., Al-Dmour, H., Masa'deh, R., Salman, A., Al-Dmour, R., Boguszewicz-Kreft, M., & AlAmaireh, Q. N. (2021, November). *The role of social media in raising public health awareness during the pandemic COVID-19: An International Comparative Study*.  
<https://www.mdpi.com/2227-9709/8/4/80>
- Alshamari, S., Elsherif, M. A., Hanna, F., Akhal, L. E., Abid, H., & Elhag, W. (2022, February). *The effect of protein supplements on weight loss, body composition, protein status, and micronutrients post laparoscopic sleeve gastrectomy (LSG): A Randomised Controlled Trial (RCT)*.  
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8762356/>
- Ballester, Elena & Munuera-Alemán, Jose-Luis & Yagüe, María. (2003). *Development and validation of a trust scale*.  
[https://www.researchgate.net/publication/264550157\\_Development\\_and\\_validation\\_of\\_a\\_trust\\_scale](https://www.researchgate.net/publication/264550157_Development_and_validation_of_a_trust_scale)
- Becker, M. H. and Maiman. (1975). *Sociobehavioral determinants of compliance with health and medical care recommendations*.  
<https://doi.org/10.1097/00005650-197501000-00002>
- Bernstein, A. (2022, October 5). *Does too much whey protein cause side effects*.  
<https://www.healthline.com/nutrition/whey-protein-side-effects>
- Bloomberg business. (2022, July 14). *Dietary supplement market is estimated to be around US\$ 350.96 billion by 2032*. <https://www.bloomberg.com/press-releases/2022-07-14/dietary-supplement-market-is-estimated-to-be-around-us-350-96-billion-by-2032-future-market-insights-inc>
- Čvirik. (2020). *Health-Conscious Consumer Behaviour: The Impact of a Pandemic on the Case of Slovakia*. [https://www.researchgate.net/publication/347890087\\_Health\\_Conscious\\_Consumer\\_Behaviour\\_The\\_Impact\\_of\\_a\\_Pandemic\\_on\\_the\\_Case\\_of\\_Slovakia](https://www.researchgate.net/publication/347890087_Health_Conscious_Consumer_Behaviour_The_Impact_of_a_Pandemic_on_the_Case_of_Slovakia)

## REFERENCES (cont.)

- Duffin, E. (2022, September 30). *U.S. population share by generation 2021*.  
<https://www.statista.com/statistics/296974/us-population-share-by-generation/>
- Euromonitor International. (2020, October 21). *Health and Nutrition Trends: Seeking a healthy life*. <https://www.euromonitor.com/article/health-and-nutrition-trends-seeking-a-healthy-life>
- Fortune business insight. (2022, March). *Protein supplements market size, share & covid-19 impact analysis, by source (plant-based, animal-based, and others), by product (Protein Powder, rtd, protein bars, and others), distribution channel (supermarkets and hypermarkets, pharmacies/drug stores, online retail, and others), and Regional Forecast, 2021-2028*.  
<https://www.fortunebusinessinsights.com/protein-supplements-market-106511>
- Goodin, S. (2007, April 6). *Clinical and Biological Activity of Soy Protein Powder Supplementation in Healthy Male Volunteers*.  
<https://aacrjournals.org/cebp/article/16/4/829/277105/Clinical-and-Biological-Activity-of-Soy-Protein>
- Gould, S. (1988). *Consumer Attitudes Toward Health and Health Care: A Differential Perspective*.  
[https://www.researchgate.net/publication/229521033\\_Consumer\\_Attitudes\\_Toward\\_Health\\_and\\_Health\\_Care\\_A\\_Differential\\_Perspective](https://www.researchgate.net/publication/229521033_Consumer_Attitudes_Toward_Health_and_Health_Care_A_Differential_Perspective)
- Grand View Research. (2021). *Nutraceuticals market size & share report, 2021-2030*.  
<https://www.grandviewresearch.com/industry-analysis/nutraceuticals-market>
- Gulfraz. (2022). *Understanding the impact of online customers' shopping experience on online impulsive buying: A study on two leading E-commerce platforms*.  
<https://www.sciencedirect.com/science/article/pii/S0969698922000935>  
(Accessed: December 10, 2022).

## REFERENCES (cont.)

- Harvard Health Publishing. (2022, August 15). *The hidden dangers of protein powders*.  
<https://www.health.harvard.edu/staying-healthy/the-hidden-dangers-of-protein-powders>
- Helm, S. (2000). *Viral marketing-establishing customer relationships by 'word-of-mouth'*. <https://doi.org/10.1080/10196780050177053>
- Jeong, (2015). *Combined effects of valence and attributes of e-WOM on consumer judgment for message and product: The moderating effect of brand community type*. [https://www.researchgate.net/publication/271138259\\_Combined\\_effects\\_of\\_valence\\_and\\_attributes\\_of\\_e-WOM\\_on\\_consumer\\_judgment\\_for\\_message\\_and\\_product](https://www.researchgate.net/publication/271138259_Combined_effects_of_valence_and_attributes_of_e-WOM_on_consumer_judgment_for_message_and_product)
- Kathiresan, R. (2022, June 1). *Use of protein powders and muscle-building supplements by young men in their drive for muscularity*.  
<https://publications.aap.org/pediatricsinreview/article-abstract/43/6/353/188063/Use-of-Protein-Powders-and-Muscle-Building?autologincheck=redirected>
- Kim. (2016, May 18). *A study on the relationship between the protein supplements intake satisfaction level and repurchase intention: Verification of mediation effects of word-of-mouth intention*.  
<https://content.iospress.com/articles/technology-and-health-care/thc1122>
- Kim, Han-Na & Na, Kwan-Sik. (2015). *Understanding repurchase intention in online fashion shopping mall*. [https://www.researchgate.net/publication/281266832\\_Understanding\\_Repurchase\\_Intention\\_in\\_Online\\_Fashion\\_Shoppingmall](https://www.researchgate.net/publication/281266832_Understanding_Repurchase_Intention_in_Online_Fashion_Shoppingmall)
- Kuesten, C., & Hu, C. (2022, May 22). *Functional Foods and protein supplementation*.  
[https://link.springer.com/referenceworkentry/10.1007/978-3-030-14504-0\\_175](https://link.springer.com/referenceworkentry/10.1007/978-3-030-14504-0_175)

## REFERENCES (cont.)

- Landau, D., & Rabkin, R. (2013, November). *Effect of nutritional status and changes in protein intake on renal function*. <https://www.sciencedirect.com/science/article/pii/B9780123919342000138>
- Leonard, J. (2018, September 18). *Health benefits of protein powder*. <https://www.medicalnewstoday.com/articles/323093>
- Lockie, S. (2002). *Eating 'green': Motivations behind organic food consumption in Australia*. <https://www-scopus-com.ejournal.mahidol.ac.th/record/display.uri?eid=2-s2.0-0036071590&origin=resultslist&sort=plf-f&cite=2-s2.0-0036071590&src=s&imp=t&sid=564a52fc0107aed5f6f21bc1ce5bc536&sot=cite&sdt=a&sl=0>
- López, M., & Sicilia, M. (2014). *Determinants of E-WOM influence: The role of consumers' internet experience*. <https://www.scielo.cl/pdf/jtaer/v9n1/art04.pdf>
- Lordan, R. (2021, September 4). *Dietary supplements and nutraceuticals market growth during the coronavirus pandemic – implications for consumers and regulatory oversight*. <https://www.sciencedirect.com/science/article/pii/S2213434421000335?via%3Dihub>
- Magkos, F. (2020). *Protein-rich diets for weight loss maintenance*. <https://pubmed.ncbi.nlm.nih.gov/32542589/>
- Martin, W. F., Armstrong, L. E., & Rodriguez, N. R. (2005, September 20). *Dietary protein intake and renal function*. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1262767/>
- Maxham. (2001). *Service recovery's influence on consumer satisfaction, positive word-of-mouth, and purchase intentions*. <https://www.sciencedirect.com/science/article/abs/pii/S0148296300001144>
- McGuffey, R. K. (2022). *Protein Supplements - an overview*. <https://www.sciencedirect.com/topics/agricultural-and-biological-sciences/protein-supplements>

**REFERENCES (cont.)**

- Oliver, A. J. S. (2018, June 22). *Quality analysis of commercial protein powder supplements and relation to characteristics declared by manufacturer*. LWT. <https://www.sciencedirect.com/science/article/pii/S0023643818305589>
- Pasiakos, S. (2014, May). *Effects of protein supplements on muscle damage, soreness and recovery of muscle function and physical performance: A systematic review*. <https://pubmed.ncbi.nlm.nih.gov/24435468/>
- Sunyansanoa, S. (2013). *Examining factors influencing the repurchasing intention of credence products: empirical evidence from Thailand*. <https://uobrep.openrepository.com/handle/10547/333445>
- Wang, G. (2002). *Attitudinal correlates of brand commitment: an empirical study*. *Journal of Relationship Marketing*. [https://www.tandfonline.com/doi/abs/10.1300/J366v01n02\\_04](https://www.tandfonline.com/doi/abs/10.1300/J366v01n02_04)
- Wirunsawanya, K. (2018, October 31). *Whey protein supplementation improves body composition and cardiovascular risk factors in overweight and obese patients: A systematic review and meta-analysis*. <https://pubmed.ncbi.nlm.nih.gov/29087242/>





### Part I: Interview Questions

Topics	Questions
Screen question	Have you ever been using protein supplements? <ul style="list-style-type: none"> <li>● Yes</li> <li>● No</li> </ul>

Table 3.3.1: Interview Questions (Users)

Questions
How long have you been taking protein supplements? <ul style="list-style-type: none"> <li>● Less than 1 month</li> <li>● 1-6 months</li> <li>● 6-12 months</li> <li>● More than 1 year</li> </ul>
What kind of protein supplements do you use? <ul style="list-style-type: none"> <li>● Whey protein</li> <li>● Plant-based protein</li> <li>● Both</li> </ul>
Which brand of protein supplement do you use? <ul style="list-style-type: none"> <li>● Nutralite</li> <li>● Plantae</li> <li>● Optimum Nutrition Whey</li> <li>● NarLab Whey</li> <li>● Etc.</li> </ul>
What do you associate protein supplement consumption with? <ul style="list-style-type: none"> <li>● Enhance wellbeing</li> <li>● Gain weight/ muscle</li> <li>● Loss weight</li> <li>● Supplement protein deficiency</li> <li>● Substitute a meal</li> <li>● None</li> </ul>
Who has influenced you to use protein supplements? <ul style="list-style-type: none"> <li>● Medical doctor/ Nutritionist</li> <li>● Coach/ Gym trainer</li> <li>● Friend/ Coworker</li> <li>● Internet Influencer</li> <li>● Parent</li> <li>● Self-administered</li> </ul>

<p>Please rank the most important factor that influences you to purchase a protein supplement.</p> <ul style="list-style-type: none"> <li>● Health benefit</li> <li>● Price</li> <li>● Brand</li> <li>● Review, Word of the Month</li> <li>● Side effect</li> </ul>
<p>Please rank what you are looking for in protein supplement</p> <ul style="list-style-type: none"> <li>● Ingredient</li> <li>● Flavor</li> <li>● Low calories</li> <li>● Organic</li> <li>● Environmental friendly</li> <li>● Good nutrition</li> </ul>
<p>Please rank what factors that inhibit you from purchasing a protein supplement.</p> <ul style="list-style-type: none"> <li>● Price</li> <li>● Brand</li> <li>● Review, Word of the Month</li> <li>● Side effect</li> </ul>

Table 3.3.2: Interview Questions (Nonusers)

Questions
<p>What do you associate protein supplement consumption with?</p> <ul style="list-style-type: none"> <li>● Enhance wellbeing</li> <li>● Gain weight/ muscle</li> <li>● Loss weight</li> <li>● Supplement protein deficiency</li> <li>● Substitute a meal</li> <li>● None</li> </ul>
<p>Please rank how much you think consuming protein supplements would help you.</p> <ul style="list-style-type: none"> <li>● 1- None</li> <li>● 2- Little</li> <li>● 3- Medium</li> <li>● 4-Good</li> <li>● 5-Very good</li> </ul>
<p>Please rank what factors that inhibit you from purchasing a protein supplement.</p>

- Price
- Brand
- Review, Word of the Month
- Side effect

Please rank what factor could influence you to purchase a protein supplement

- Health benefit
- Price
- Brand
- Review, Word of the Month
- Side effect

**Part II: Demographic**

- Age
- Gender
- Education
- Monthly income

