# FACTORS DRIVING ATTITUDES TOWARDS THE CONSUMPTION OF WHEY PROTEIN AMONG PEOPLE WHO EXERCISE



A THEMATIC PAPER SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF MANAGEMENT COLLEGE OF MANAGEMENT MAHIDOL UNIVERSITY 2017

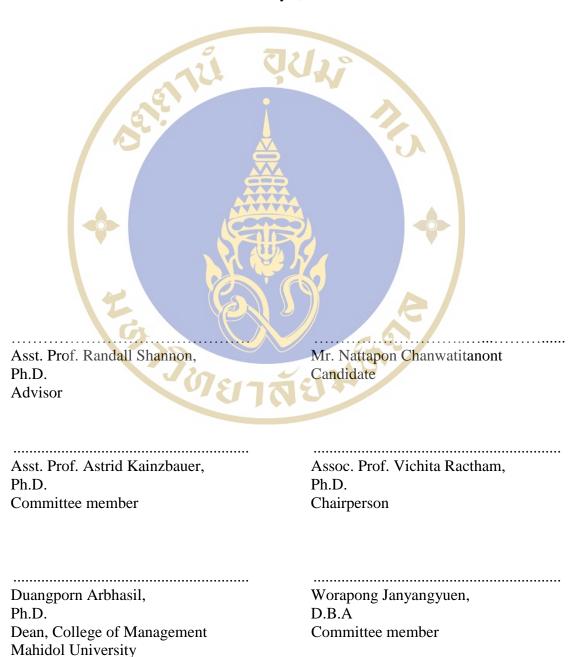
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## Thematic paper entitled

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was submitted to the College of Management, Mahidol University for the degree of Master of Management

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## FACTORS DRIVING ATTITUDES TOWARDS THE CONSUMPTION OF WHEY PROTEIN AMONG PEOPLE WHO EXERCISE

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#### **ABSTRACT**

The purpose of this thematic paper is to get a better understanding of the influencing factors that effectively impact to the consumer's intention why they consume the whey protein in Bangkok, Thailand. By study the visiting potential customers and non-potential consumers on how they make decisions to consumers the whey protein over other supplements while they are exercise.

Furthermore, this research also aims to get a deeper understanding of the most effective factors that influenced them to consume whey protein, also the new explore of the factors that make them convenience to make consumption and decide to take whey protein to help marketers to expand the market and convince the non-user to be an user in the future.

The data were derived from in-depth interview of the sample of 20 interviewees. As the time and resources in doing this research are limited, this research scope is the most appropriate means to collect information, which will be the answer to our research question.

The findings of this research demonstrate that the two main factors that make the consumers decide to consume whey protein are self-image and convenience. These two factors are mainly impact to the consumer's insight and intention in Bangkok Thailand among people who exercise.

KEY WORDS: Whey protein/ Supplements/ Self-image/ Intention / Price concerned

31 pages

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### CHAPTER I INTRODUCTION

#### 1.1 Background and Statement

Nowadays, healthy food and dietary trends are increasing more than ever in the past. A lot of people living in today's big cities and urban environments believe that the most efficient way to keep healthy and good looking is to consume clean food and to add supplements on top of the main meal. Health trends are changing consumer behavior and this is reflected in the increasing number of healthy products in the market right now. Despite all the current changes and fluctuations in the Thai economy, there is a definite boom in the health market as can be seen in the increase of healthy products, supplements, and other dietary foods for people who are health conscious. In addition, consumer interest in this group of products is also being fueled by heath-related trends and business such as sports clubs and fitness centers etc., as well as advertising media (online social media, television, print ads, posters etc.). Further influences on consumer perceptions in this regard is provided by popular role models such as superstars, singers or celebrities who possess admirable characteristics and strong self-esteem. They create the perception that looking good on the outside will reflect inside that they are healthy.

One product that has become a popular part of the current boom in health products is whey protein. This food supplement is widely used among bodybuilders to build strength and muscle mass and it has also become popular among regular sports people and fitness enthusiasts who want to gain more muscle and improve their physical health. Whey protein is the best choice for these groups of people because it is a very powerful source of protein and its ingredients work effectively to build muscle tissue inside the human body. Whey protein is a rich source of nitrogen and amino acids. They serve as a major structural component of muscle and other tissues in the body. In addition, they are useful for producing hormones, enzymes and hemoglobin. Protein can also used for increased energy (Hoffman & Falvo, 2004).

#### **Whey Protein**

Whey protein originally developed through a convergence of the dairy industry (Vardhanabhuti, 1999) and the huge growth in the fitness industry. Dairy producers originally thought that the leftover by-product from cheese processing was useless. Then in the 1980s-90s the bodybuilding craze became popular and fitness enthusiasts were looking for protein supplements to help them build muscle mass and strength. Whey protein was developed to help meet this sudden market demand for protein supplements. (Neville, 2001) Originally whey protein was only made in a basic powder form but since then it has been developed into a wide range of forms such as whey protein bars, capsules and ready-made drinks. This is a market evolution for whey protein until nowadays. The current market for whey protein is huge and diverse with over 30 major global brands available, all offering a wide variety of products. Cow's milk is not the only source of whey protein. It can also be made from substitute sources such as soymilk and goat's milk. These sources are a little less effective than cow's milk because cow's milk contains a lot of casein (one form of protein), almost 80% that will make a good quality of whey protein supplement. However, the other nondairy forms of whey protein are important for consumers who are allergic to cow's milk or who have special dietary needs.

Whey protein is still an underdeveloped part of the health food market in Thailand. There is still no local brand of whey protein in Thailand or even a local company that owns licensing rights to whey protein products. Most of the brands that exist in the local market are imported from abroad. In large part, this is because the raw material (cow's milk) is still sub-standard and very expensive here in

Thailand. Also local producers can use cow's milk to produce other products that make a lot of profit such as lactose and animal food.

The whey protein market in Thailand also suffers from problems of image and lack of information. Most Thai consumers simply don't know about the benefits of whey protein or, if they do, they think it is only useful for professional bodybuilders or elite athletes. This narrows down potential target groups and can make ordinary people feel uncomfortable about consuming whey protein.

In Thailand there are a lot of target consumer groups for health food products including patients, older people, sports people, fitness enthusiasts and the new generation

of health conscious consumers (Nissen & Sharp, 2003). These groups have all helped the rapid growth of the health product market and influenced the rise of market trends such as health drinks, vitamin supplements, organic goods etc. Moreover there is a lot of market research right now around the development of new and improved healthy products to satisfy these consumers, differentiated in terms of quality, ingredients, packaging or something else.

This case study will undertake research to try and better understand the factors that influence consumer's perceptions and uses of whey protein. In particular, the research will address 4 main areas that are central to changing consumer behavior. There are health consciousness, self-image, product quality and price concerns. This research will engage in careful analysis and discussion of the results to find out the most important factors and variables that motivate changes in consumer behavior.

#### 1.2 Research Questions

This study will attempt to discover the important variables that influence consumers' attitudes and decisions about whey protein. Its main research questions are: what is the perception of whey protein in the Thai market; what variables influence consumer intentions in relation to whey protein; and how can the product be better marketed to potential consumers in Thailand? The results and discussion of this research will help marketing people to be clear about the target segment of consumers and give them greater insight into their minds and how to influence their intentions and behavior.

#### 1.3 Research Objectives

The objectives of this research is to get a better understanding of the important variables which shape consumer attitudes and intentions about whey protein, its consumption and/or the choice of brands. Furthermore, this research also aims to get a deeper understanding of consumer insight and behavior in relation to whey protein and assorted health products.

#### 1.4 Research Scope

The research will use qualitative methods to collect data and information, which is essential to answer the research proposition. An initial literature review and analysis will be conducted to gain background knowledge. The literature research will be focused mainly on academic and professional journals sourced through the CMMU online library. Additional online searches will be used to support with up-to-date data and other relevant information. A semi-structured interview will also be used to get information about the exact variables that drive consumer attitudes and that shape decisions about the consumption of whey protein. For this part of the research, a random sample of 10 interviewees for two groups of potential customers will be sourced from the Bangkok (Thailand) area. The interview and questionnaire will help to gain insight into these consumers' knowledge, perception and thoughts regarding whey protein.

#### 1.5 Expected Benefits

- 1. Better understanding of the variables that influence consumers' behavior and attitudes to whey protein.
- 2. Better understanding of consumers' perception and thinking about whey protein.
- 3. Better understanding of consumers' ideas about the benefits of whey protein and/or the kind of people who consume it.
- 4. Better understanding of target consumers for whey protein. Who are they? What do they look for in a protein supplement? How important is whey protein in their health and lifestyle choices?
- 5. Devising strategies for developing and expanding the whey protein market In Thailand.
- 6. Analyzing Thai consumer behavior in relation to whey protein and developing appropriate marketing plans.

### CHAPTER II LITERATURE REVIEW

#### 2.1 Product Background: Whey Protein

Whey protein powder is the best supplement for athletes to build muscle according to the information above. However professional industry research shows that whey remains the best source of protein (Sarwar, 1997) from any food substance and it has multiple benefits and uses. Whey protein powder has many applications throughout the food industry. As an additive it is seen in food products for beef, dairy, bakery, confectionery, and snack products. Whey powder itself has several different varieties including sweet whey, acid whey (used in salad dressings), demineralized (seen primarily as a food additive in infant formulas), and reduced forms. The demineralized and reduced forms are used in products other than sports supplements.

Table 2.1 Protein contained quality ranking

Protein Type	Protein Efficiency Ratio	Biological Value	Net Protein Utilization	Protein Digestibility Corrected Amino Acid Score
Beef	2.9	80	73	0.92
Black Beans	0		0	0.75
Casein	2.5	77	76	1.00
Egg	3.9	100	94	1.00
Milk	2.5	91	82	1.00
Peanuts	1.8			0.52
Soy protein	2.2	74	61	1.00
Wheat gluten	0.8	64	67	0.25
Whey protein	3.2	104	92	1.00

Adapted from: U.S. Dairy Export Council, Reference Manual for U.S. Whey Product 2<sup>nd</sup> Edition, 1999 and Sarwar, 1997.

As further outlined below, this case study will research consumer attitudes toward whey protein and possible changes to consumer behavior in relation to several key areas (variables): health consciousness, self-image, product quality, and price concerns. According to theories of planned behavior, human behavior is the result of competing dynamics as seen in the diagram below (Ajzen, 1991). Our behavior is determined by

intention and perceived behavioral control (PBC), which in turn is influenced by a number of intersecting beliefs, attitudes and norms (Ajzen, 1991). Understanding these variables is key to planning any effective strategies for influencing consumer behavior and decision-making.

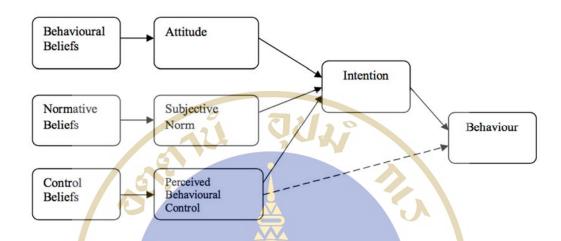
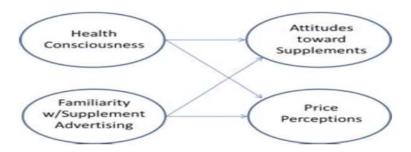


Figure 2.1 Theory of planned behavior

Source: Ajzen, (1991)

#### 2.2 Health Consciousness

Everyone approaches health differently. Some people are reactive and some proactive about their health. Some people recover quickly from illness or injury, while others can take a long time. Regardless, experts agree that everyone benefits from increased health consciousness and "a goal-directed arousal to engage in preventative health behavior" (Moorman and Matulich, 1993, p.210). Hong (2009) identified five categories of research in the area of health consciousness: first is an engagement in health behavior, second is a psychological attention to one's health, third is health information seeking and usage, fourth is personal responsibility, and the fifth is health motivation. Based on these categories, health conscious consumers can be understood to be motivates by a strong sense of personal responsibility for their health. They actively seek health information from a variety of sources and apply the knowledge to their future consumer behavior and decision-making in relation to consumer products and health goods (Hong, 2009).



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Figure 2.2 Conceptual health conscious model

#### 2.3 Self-Image

Self Image refers to the sense of personal identity held by each consumer and how they perceive themselves and their characteristics (both external and internal) and personality. Self-Image also pertains to a sense of physical attractiveness and sexual behavior as well (Housman, 2006). Self-Identity is crucial to consumers' decision-making processes and, thus needs to be understood in any attempt to change or influence consumer behavior (Azjen et al, 2004). In the case of a health supplement like whey protein, self-identity plays a major role in determining the choice and use of the product. Because whey protein is directly linked to health and physical appearance (shape, size, body mass, etc.) it directly links to people's sense of self-image and how they appear to themselves and others. Athletes consume whey protein because they want to perform better and so improve their professional self-image. Other non-professional consumers use it in order to improve their physique and sexual attractiveness, as well as improve their general health and well being.

Another inter-related issue here is stress management. Studies show that personal stress is a key driver for self-image (Wang and Li, 2016). If people feel they have no control over their own bodies and self-image, it can lead to increased stress and a loss of self-worth. Exercise and body building is a proven way of combatting stress and giving people a stronger sense of control over their self-image. Whey protein and associated supplements can play a strong support role in this process.



Figure 2.3 Conceptual self-Identity model

#### 2.4 Quality of the Product

Quality of product is defined as the superiority or excellence of performance and apparent quality of a certain product as this can be judged and assessed based on consumers' perceptions and opinions (Aaker, 1991). In terms of whey protein, the most popular forms used are whey protein powder (WPP), whey protein concentrate (WPC), and whey protein Isolate (WPI). Each three possess slightly different components as detailed in the product label.

WPP is a general form that can come from many animal sources such as beef, dairy, chicken etc. WPC is a more potent form of whey protein in which water, lactose, ash and some minerals are removed in order to create a concentrate that is more slowly released and absorbed into cells inside the human body (Boirie et al., 1997). The third and final form is WPI, an even stronger concentrate that is purified by 90% or higher and in which all fat and lactose is removed, resulting in a pure protein that is very effective for building lean muscle inside the human body (Geiser, 2003).

**Table 2.2 Composition (%) of whey protein forms** 

Component	Whey powder	Whey concentrate	Whey isolate
Protein	11 – 14.5	25 – 89	90 +
Lactose	63 - 75	10 – 55	0.5
Milk fat	1 – 1.5	2 – 10	0.5

Source: Geiser (2003)

#### 2.5 Price concerns

Consumers' intentions in relation to product price is very sensitive and one of the more complex aspects of marketing. The forces that influence consumers to buy goods and the amount of money they are prepared to spend are many and varied (Conner, 1996). For example, some researchers argue that perceived self-efficacy and the individual's own abilities to perform the behavior are much more critical in determining consumer choice, than environmental or external forces (Terry and O'Leary, 1995). It is for this reason that some consumers possibly spend more on health products than on other goods. Nevertheless, price is an important factor in shaping consumer behavior and thus a key criterion in the consumer evaluation process (Engel et al, 1993).

Another assumption that researcher found out that for the prices – concerned. There are not going to have a critical criteria to choose if consumers need to buy an additional equipment or supplement that make them pound inside and it's making them happy. The price-concerned people don't think too much about how many they have for the money and think about the financial statement. For this related case the price of the goods will have an effects or not it's depend on the supplementary and healthy products that they are really need or not.

It can be assumed that the price of dietary supplements is more of the perceived self-efficacy type of control. However, higher prices may be an obstacle to some, especially lower-income group consumers (Takiainen & Sundqvist, 2005). On the other hand, some consumers believe that higher prices equate to better quality and happily pay more in the belief that they are getting a better product (Wathieu & Bertini, 2007). Price concerns are a very sensitive topic and a complex area of decision making for consumers.

## CHAPTER III RESEARCH METHODOLOGY

#### 3.1 Research Design

This study will conduct a qualitative type of research. The qualitative research will be used in the form of in depth interviews of a group of sample participants. The interviewees will consist of a mix of potential target consumers of those who exercise using whey protein and those who don't. The interview will address their perceptions and opinions about whey protein and why they choose to use or not use the product as part of their health and exercise regime. The information sourced from the interviews will provide direct knowledge about consumer attitudes and insights into their perceptions and thoughts about whey protein (what they think of it/want from it, etc.). This qualitative survey will help further specify the reasons and attitudes at play in consumers' decisions regarding whey protein with a central focus on the 4 variables outlined earlier.

The base knowledge and experience of consumers revealed in the combined qualitative research will lead to a better understanding of consumer motivation in relation to whey protein. This in turn will allow the project to draft a series of recommendations for better marketing of whey protein in the local Thai market.

#### 3.2 Samples and Data Collection

The initial phase of in-depth interviews will use a sample of twenty (20) interviewees drawn from the primary consumer target group of Thai amateur sports/fitness enthusiasts. The in-depth interviews will ask interviewees to discuss three main topic areas. The first one will concern the kind of sport or exercise they do and what influences/intentions motivate their choice and frequency of sport etc. The second topic of discussion will concern eating beliefs and habits, what kind of supplements, diet foods and energy products, if any, are used. The last component of the interview will direct respondents

to discuss whey protein: whether or not they have used it, what they understand/think about it and other variables that influence their perception and consumption of whey protein.

Audio recorder will record interview results and direct short notes, and then processed as a way of drafting preliminary conclusions about the interviewee's insights. The opinions and experiences offered by this sample group of target consumers will help to narrow down the range of potential consumer intentions. Identifying and understanding consumer intentions is the best way to achieve the goals of the research. However, the final information will be based on the factual data presented.

#### 3.3 Instrumental Tools

As mentioned above, this research will principally use qualitative methods of in-depth interviews in order to achieve an intensive form of data collection. The interview questions will be adapted from regular information but revised for use with people who exercise. The research will be structured to focus as effectively as possible on consumer attitudes and opinions and how these affect behavior choices in relation to whey protein. It will be grouped into two parts as follows.

#### 3.3.1 Part I (Potential customers interview)

This section will explore potential customers' perceptions of whey protein and how these influence their intentions and behavior. It will also ask for some basic background information about age, gender, education, profession, income range, life goals, motivation, and so on. The potential group of consumers will be divided into two groups:

Group I: Consumers who exercise and already consume whey protein in any form.

Group II: Consumers who exercise but do not yet consume whey protein.

Participants will also be invited to engage in an open-ended discussion of their ideas and opinions about health supplements, dietary food and whey protein. All information will be collected and recorded to help with the research and the formulation of conclusions in the second part. Core topic to be asked in the in-depth interviews includes the following (though interviewees will also be invited to raise their own questions and/or supply their own information).

Topic No.1: Have you heard about whey protein and/or how much do you know about it?

Topic No.2: What supplements, if any, do you use or take before and after exercise? and how often? and why/why not?

Topic No.3: Why do you take whey protein with exercise and for what reason? (Health consciousness, Self-Image, Product Quality or Price Concern) Do you have any other reasons? How do you take it and how often?

Topic No.4: What do you think is the benefit, if any, of taking whey protein? And how does it make you feel?

Topic No.5: Do you think the forms of whey protein are different for the final result (improvement, transformation) in your body?

Topic No.6: Please share any other ideas you have about whey protein and whether or not you think it has any side effects? Why/why not?

Topic No.7: Please tell me what type of whey protein you think might be a good one? What kind of benefits do you think it might have? Why/ why not?

#### 3.3.2 Part II (Analysis and conclusions about effective marketing)

This section will process and analyze the collected data in order to better understand local consumer opinions about whey protein. It will identify the main variables that effect consumer intentions to consume whey protein. This section will also outline consumer attitudes and any concerns they may have about whey protein: for example, side effects of over-consumption. On the basis of the collected data, the project will then outline a series of strategies and recommendations for more effective marketing of whey protein in the Thai market: how to make the product more appropriate, more attractive and more interesting to Thai consumers, etc.

As such, this research will achieve the aims and objectives proposed in the beginning. The insights gained into consumer attitudes and intentions will directly benefit marketers of whey protein in Bangkok (Thailand). It will give them direct information about existing and/or potential customers and help them better manage

business operations in relation to consumer behavior now and in the future. However this research will help to explore more for the ideas and insight of consumers apart from variables provided respectively.



## CHAPTER IV DATA COLLECTION AND FINDING

In this chapter, the data derived from the in depth interview methodology will be analyzed by taking into account the propositions that had mentioned in the previous chapter and the result will be revealed. The researcher had interviewed the total of 20 participants of which were grouped into two categories of 10 each. The first group of respondents is an experienced user who had ever consumed whey protein for exercise. The second group of respondents is inexperienced users who had never consume whey protein for exercise, but they have some experienced to consume and have tried whey protein products before, e.g. powder shake, tablets and snack bar etc. Therefore, are designed to suit each of the different types of respondent in order to collect the best information from each group.

The interview questions are based mainly on the nondurable goods consumption (Pattanajirarut, 2014) that proposed to fast moving consumer's goods for example water, food, medical and fuel. This chapter will explore how each of these factors affect the consumer's decision to consume whey protein and how they can be improved in order to explore new factors that also moving their motivation to make decision to consume whey protein in Bangkok area (Thailand). In term of variables provided are health – conscious, self – image, quality of product and price – concerned. However researcher exploring from new consumers' insight are convenience, curiosity and side effect results according to the result summarized above.

### **4.1** Profiles of interview participants

#### 4.1.1 Group A (Exercise and consume whey protein)

Table 4.1 Data collection for group A

				Factors	T.		
Interviewee	Sex	Education	Age	influencing consum-	Frequency of	Other factors/other supplements	Ideas of side
List	SCA	Education	rige	ption of	consump-	replacement	effects
		1	1	whey protein	tion		
Participant 1	Male	Bachelor	24	Health -	4 times /	Convenience/	Perhaps
	/ 3			conscious	week	Multivitamins	in long
				Ă		SAL	term
Participant 2	Male	Bachelor	23	Quality of	5 times /	Convenience/	Body
				product	Week	Multivitamins, Zinc &	contain
						vitamin C	more
			2				water
Participant 3	Male	Bachelor	25	Self - Image	4 times /	Convenience /	No
\ \			80	1	week	Creatine, BCAA,	
\	12		P			Multivitamins and	
	\ G	1				vitamin B +	
Participant 4	Male	Bachelor	28	Quality of	5 times /	None/L – Carnitine	Perhaps
		1	7c	product	week		in long
			7	103			term
Participant 5	Male	Bachelor	35	Self - Image	4 times /	Convenience/ none	No
					week		
Participant 6	Female	Bachelor	33	Health -	3 times /	Convenience/Multivita	No
				conscious	week	min and collagen	
Participant 7	Female	Bachelor	28	Health -	3 times /	Convenience/L-	Effect to
				conscious	week	carnitine, Vitamin C	Estrogen
						and Vitamin B +	(Cysts)

Table 4.1 Data collection for group A (cont.)

Interviewee List	Sex	Education	Age	Factors influencing consum- ption of whey protein	Frequency of consump- tion	Other factors/other supplements replacement	Ideas of side effects
Participant 8	Female	Bachelor	24	Quality of	5 times /	Convenience /	Too many
				Product	week		calories
							in long
			0	72	,0		term
Participant 9	Female	Bachelor	33	Self –	5 times /	Convenience /	No
		9		Image	week	Multivitamins	
Participant	Female	Bachelor	28	Self - Image	3 times /	Convenience /	Perhaps
10				Å	week	Collagen	in long
							term

## 4.1.2Group B (Exercise but don't consume whey protein)

Table 4.2 Data collection for group B

Interviewee List	Sex	Education	Age	Factors influencing consum- ption of whey protein	Frequency of consump -tion	Other factors/other supplements replacement	Ideas of side effects
Participant	Male	Bachelor	35	None	None	None/None	No ideas
1							
Participant	Male	Bachelor	26	Health	Occasionally	Convenience/White	Chemical
2				conscious		eggs	residue in
							the body
Participant	Male	Bachelor	32	Self - Image	Occasionally	Convenience/	Damage
3						Creatine, Vitamin B +	to
						& Vitamin C,	Kidneys
						Fish oil, CO-Q10,	
						Biotin and Zinc.	

Table 4.2 Data collection for group B (cont.)

Interviewee List	Sex	Education	Age	Factors influencing consum- ption of whey protein	of consump -tion	Other factors/other supplements replacement	Ideas of side effects
Participant	Male	Bachelor	28	Health	None	None/Fish oil	No ideas
4				conscious			
Participant	Male	Bachelor	29	Self - Image	Rarely	None/None	Acne &
5			0	7	100		Body
			1	30	W		rash
Participant	Female	Bachelor	35	Self - Image	None	Curious/	Maybe
6	/ \					None	not
Participant	Female	Bachelor	28	Self - Image	None	None/None	Damage
7				W			to
							Kidneys
Participant	Female	Bachelor	27	Quality of	Occasionally	Convenience/	Chemical
8				Product	1	L - Carnitine	residue in
			V	、省上人	1		the body
Participant	Female	Bachelor	33	Self - Image	Rarely	Convenience/	Chemical
9	して		Vé.			Multivitamin &	residue in
	16	1				Gingko plus	the body
Participant	Female	Bachelor	35	Self - Image	None	Convenience/	Perhaps
10		130	Te.	1356	121	L - Carnitine	in long
				103	,		term

#### 4.2 Analysis of results

#### **4.2.1** Group A (exercise and consume whey protein)

Table 4.3 Data collection & analyst for group A

Group	Group Variable provided					Variable provided				Total	Crown A		variable plored	Total
A	Health - conscious	Self - Image	Quality of product	Price - concerned	Total	Group A	Male	Female	Total					
Male	1	2	2	0	5	Convenience	4	1	5					
Female	2	2	1	0	5	None	5	0	5					
Total	3	4	3	0	10	Total	9	1	10					



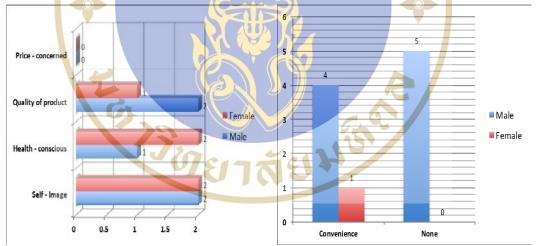


Figure 4.1 Graph for group A Results

Group A of the participants is a very high potential to get the results for consumers behavior and the result from the variable that influenced them to consuming whey protein and still consuming in the future came from self – image is the most intention for them for 40%, for health – conscious and quality of product is 30%. However for this group of consumers not concerned for the prices. Price never be in they mind when they decide to consume whey protein at all. Overwhelming the researcher provided

open – ended for the variable that insight in their mind, eventually they gave a convenience issues for 90% that suit them to consume whey protein apart from none of variable, by averaged that male and female almost the same as portion of percentage.

#### **4.2.2** Group B (exercise without consume whey protein)

Table 4.4 Data collection & analyst for group B

Group B		Var	iable provid	ed			Group		New varia		
	Health - conscious	Self - Image	Quality of product	Price - concerned	None	Total	В	Convenience	Curious	None	Total
Male	2	2	0	0	i /	5	Male	2	0	3	5
Female	0	4	1	0	0	5	Female	3	1	1	5
Total	2	6	1	0	1	10	Total	5	1	4	10

Group	Variable provided						Group	New va				
В	Health - conscious	Self - Image	Quality of product	Price - concerned	None	Total	В	Convenience	e Curious	None	Total	
Male	20%	20%	0%	0%	10%	50%	Male	20%	0%	30%	50%	
Female	0%	40%	10%	0%	0%	50%	Female	30%	10%	10%	50%	
Total	20%	60%	10%	0%	10%	100%	Total	50%	10%	40%	100%	

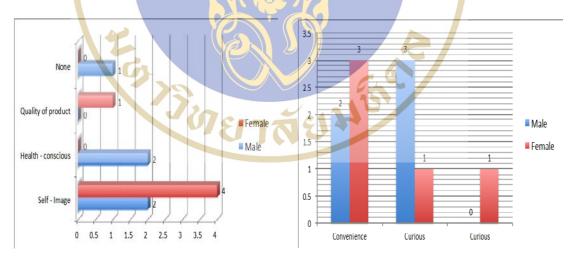


Figure 4.2 Graph for group B result

For group B of consumers interviewed as result above. 60% out of 100% came from self – image for the variable provided platform. The exerciser would like to get self – image (looking good) if they would like to consume whey protein, The interviewer try to convinced and educated them to let them know how good and bad

about whey protein is. Eventually the participants' put more commented in self – image, the rest will be the same portion as of 20% for health-conscious and quality of product respectively. For the price – concerned no issue for this group of consumers same as group A. They are not concern about the price at all if they need to consume this product. Alternatively for the open – ended variables that they provided during in depth interview, the researcher found out that they have the same new intention as group A of consumer provided is convenience. And another reason is curiosity and none of all 40% and 10% in order.

4.2.3 Group A + B

Table 4.5 Data collection & analysis for group A & B

Group A + B	Variable provided						Group	New variable explored				
	Hea <mark>lt</mark> h - conscious	Self - Image	Quality of product	Price - concerned	None of all	Total	A + B	Convenien	ce Curious	None (New factors)	Total	
Male	3	4	2	0	<u>1</u>	10	Male	6	1	3	10	
Female	2	6	2	0	0	10	Female	8	1	1	10	
Total	5	10	4	0	VI	20	Total	14	2	4	20	

Group	Variable provided (11)						Group	New va <mark>ri</mark> able explored				
A + B	H <mark>e</mark> alth - conscious	Self - Image	Quality of product	Price - concerned	None of all	Total	A L Ř	Convenience	Curious	None (New factors)	Total	
Male	15%	20%	10%	0%	5%	50%	Male	30%	5%	15%	50%	
Female	10%	30%	10%	0%	0%	50%	Female	40%	5%	5%	50%	
Total	25%	50%	20%	0%	5%	100%	Total	70%	10%	20%	100%	

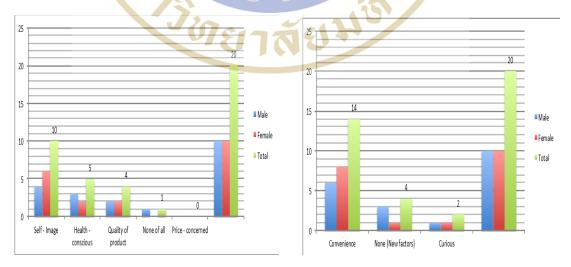


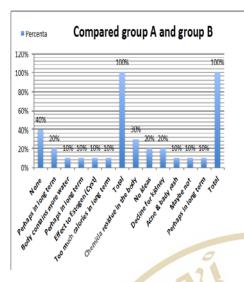
Figure 4.3 Graph for group A & B result

Data collated for groups A & B: the self – image variable driving consumer's behavior to consume whey protein is 50%, health – conscious is 25% and product quality ranks at 20%. The new variables that the researcher found are convenience at 70%, none of all 20% and curiosity 10%. Questions about price were not in the consumers' mind for this in-depth interview.

#### 4.3 Side Effects

Table 4.6 Data collections for side effects

			_					
Gr	oup sepa	rated re		Group consolidated results				
Side effect's perception	Group A	Group B	Total	Percentage	List	Side effect's perception	Group A + B	Percentage
Perhaps in long	2		2	20%	1	Perhaps in	3	15%
term						long term		
Body cotains	1		1 6	10%	2	Body	1	5%
more water						cotains more		
				AVV		water		
None	4		4	40%	3	None	4	20%
Perhaps in long	1		1	10%	4	Perhaps in	1	5%
term			77	W 17 1		long term		
Effecto to	1		1	10%	5	Effecto to	1	5%
Estogen (Cyst)		y				Estogen		
1 9						(Cyst)		
Too much	-1		(1)	10%//	6	Too much	1	5%
calories in long						calories in		
term		9			0	long term		
Total	10	0	10	100%	7	No ideas	2	10%
No ideas		2	2	20%	8	Chemicla	3	15%
				00	1	residue in		
						the body		
Chemicla residue		3	3	30%	9	Decline for	2	10%
in the body						kidney		
Decline for		2	2	20%	10	Acne &	1	5%
kidney						bady rash		
Acne & bady		1	1	10%	11		1	5%
rash						Maybe not		
Maybe not		1	1	10%	12	Total	20	100%
Perhaps in long		1	1	10%				
term								
Total	0	10	10	100%				



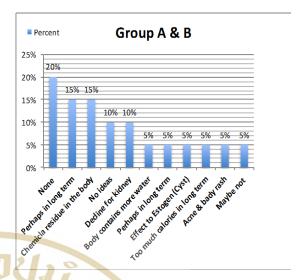


Figure 4.4 Graph for side effects

The researcher collated the data from the two groups of participants and consolidated the results to find out what is in the consumer's mind and how they think about the side effects of whey protein. With group A, 40% thought that whey protein had co side effects and 20% thought it might have some minimal side effects in the body after long-term use. The research reveals that other interviewees in Group B had strong concerns about possible future problems from whey protein consumption. Among Group B, 30% were worried about chemical residue in the body, 20% cites damage to the kidneys, and 20% admitted they had no opinion about side effects.

If we collate the data about side effects from all groups of consumers interviewed, the overall result is 20% believe there is no appreciable side effects, 15% think there may be some long-term effects and 15% are of the belief that whey protein causes some type of chemical residue in the body.

#### **CHAPTER V**

#### CONCLUSIONS AND RECOMMENDATIONS

#### **5.1 Summary of Findings**

Based on the results of the in-depth interviews, we cannot deny that the main factors that influence customers decisions to consume whey protein are self-image and convenience. These two variables are nowadays becoming core intention needs among consumers. The new generation of consumers spends more money and time to look after themselves with fitness and exercise and other auxiliary markets such as health food products. It is very important for this kind of modern health-conscious consumer to impress other people and to make a strong social impact. However, there is no guarantee that customers who exercise and consume whey protein will have an optimal result in terms of self – image and convenience. Much of the outcome depends on the situation, discipline, and appropriate exercise to make it more effective. That is why this research was conducted in an attempt to find out the factors which could help consumer's behaviors to consume whey protein that is very important to gain improved self – image and convenience for this generation of consumers.

Based on our propositions, the researcher found from the interviews that only three factors out of four have an impact on the respondents' intentions to consume whey protein. We can use these three factors to increase the rate and popularity of whey protein consumption. From the analysis of the interview results, we found that the most important factor that impacts consumer behavior is self - image. An additional variable discovered in the research was the importance of convenience in decisions regarding whey protein. Convenience is important to this group of consumers because they are city-dwellers with all the pressures and time constraints of urban living. Moreover, most of them are office workers and they do not have enough time to prepare food that would give them proper nutritional benefits. Whey protein is an ideal product in this regard as it is quick and easy and ready-to-use, thus helping consumers save time in the rushed urban lifestyle.

The next essential in this research is about price. Interestingly, we found that concerns over price were not a major influence on consumer's thoughts or decisions about whey protein consumption. All the consumers that participated either failed to mention price or dismissed it quickly as a relatively minor issue. Their perception was that if a product satisfies their core intentions, especially if its is something that will make them look and feel good (i.e. meet their main intention of self-image), then they don't mind paying a top price for it. As such, this research confirmed the findings of other studies that, as long a s a product meets target intentions, then consumers will meet market price or even higher in order to gain maximum satisfaction of their intentions.

One important issue identified in the research as a potential 'problem area' is the question of side effects. There was quite a wide range of views on the issue of whey protein side effects, largely dependent on consumer familiarity with the product. The most popular opinion was that whey protein had no bad side effects if it is consumed according to directions and combined with an appropriate exercise regime. Indeed, this dominant consensus holds that whey protein is a beneficial aid to exercise, helping consumers to gain better results from their workouts and fitness regimes. Nevertheless, there is a minority of consumers who consume whey protein but still harbor the idea that it could have damaging side effects in the long term: for most, these side effects are unknown but some identified the possibility of chemical residue in the body. These results show that consumers have a lot of ideas and thoughts about side effects based on their knowledge and background of whey protein consumption.

## **5.2** In Common and in Contrast (Compared with Two Groups of Potential Consumers)

Researchers found out that both group A and group B had common intentions in terms of self – image as a major influence on their decisions about the consumption of whey protein and/or the choice of supplement. The other common variable was convenience and the ease of use of whey protein. In a slightly different vein, both groups shared an equal disinterest in price as an influencing factor. Because both groups of consumers wanted to look good and value-add to their self – image and enjoy convenience, they are willing to pay an appropriate and affordable price for

whey protein. Overwhelming, this common ground between the two groups demonstrates the importance of consumer intentions on how they perceive products and what they want.

In terms of contrasts, group A and group B held noticeably different ideas about the side effects of whey protein. Because Group A already have first-hand experience of whey protein consumption, the majority believed the supplement has no bad side effects as long as it is consumed in the right dose and combined with a proper exercise regime in order to maximize the benefits from it. Some of the consumers in Group A suggested whey protein might have long-term side effects but they didn't know for sure whether this would happen or what form these side effects might take. For group B, there was a discernible trend toward concerns about side effects including: chemical residue in the body, kidney damage, acne and body rash. Much of these concerns are vague and unfounded because this group are not familiar with whey protein and don't have much information about it, its benefits and proper usage, etcetera.

This research is thus able to help marketing people consider the need for better consumer education about whey protein. Many consumers remain ignorant about the value and benefits of whey protein and, thus, need more factual information and reassurance about the best way to use whey protein. This strategy will help consumers make better decisions. It will also help marketers learn more about how to better influence consumer intentions regarding whey protein and other similar dietary health products.

#### **5.3 Recommendations**

Based on the findings of this research, the following recommendations are suggested in order to better manage variables and increase the rate of consumption of whey protein in the Bangkok area (Thailand):

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1. Since self-image is a paramount concern for consumers, marketers should stress the benefits of whey protein on self-image. Information about how whey protein improves physique, body shape, physical strength and general health and well-being should form the main focus of marketing and promotion.

- 2. The other important influence identified in the research is convenience and so this should also be a focus for marketing whey protein. Consumers relate that they like whey protein because it's easy to use and can save time. At present, whey protein comes in three main forms in the Bangkok market: powder, tablet and snack bar. Powder is the most popular form but it typically needs to be prepared and shaken with liquid before consumption. This suggests that there could be a strong consumer demand for pre-prepared protein supplements that are already mixed with milk or other beverages. Such pre-prepared drinks are available overseas but aren't readily available locally. As such, the research identifies a strong opening for product diversification.
- 3. Scientific research overwhelmingly supports the safety and efficacy of whey protein as an ideal nutritional supplement to improve exercise and fitness outcomes. Nevertheless, my research indicates that fears and suspicions remain among many consumers about negative side effects of whey protein. I would suggest that marketing people do more public education in the form of in-store information sessions or online websites in order to dispel some of the false ideas about whey protein.
- 4. As an additional recommendation to the one above, there is a need for easy-access communication channels for customers to get more information and/or assistance from whey protein retailers, e.g. websites, email address, phone number, social media platforms such as LINE and Facebook, and/or increased physical presence in shop and retail outlets.

#### **5.4 Implicit Recommendations**

In the interviews, the researcher found out a few additional insights into consumer perceptions and intentions regarding whey protein.

1. Whey protein is a health and fitness supplements not a nutritional product, as some consumers perceive. In fact, whey protein is a pure extracted protein that comes from multiple sources including meat, eggs, soymilk and cow's milk etc. Marketing communication should be very clear to launch communication to the target audience that whey protein is a pure protein containing high levels of protein that is used to replace protein from daily meals for people who love to exercise and want to maximize its benefits.

- 2. Research found that the various forms of whey protein (powder, tablet and snack bar) are very important in shaping consumers' intentions. The whey protein powder is very easy to absorb and good for stomach digestion, tablets have medical associations and, as such, alienate some consumers, and snack bars often contain too many additives that increase overall calories and energy content, which is not ideal for exercisers who want to control their weight. Marketers should focus on whey protein powder as the prime product in their attempts to influence consumer behavior.
- 3. Comparisons in the research between those consumers who exercised and consumed whey protein and those who exercised but didn't consume whey protein revealed a difference in terms of how these consumers viewed external perceptions of their self-image. Generally, those who consumed whey protein claimed greater satisfaction with their self-image and how others perceived them socially. Marketers of whey protein would do well to build on the social aspect of the product, for example by making a club or association that consumers could join or promoting the product within the context of fitness clubs and sports groups.
- 4. Consumers interested in whey protein are usually interested in other health and fitness related products. Marketers should build on this appeal and offer more variety of choice for customers in the form of other auxiliary products. For example, they could offer promotions whereby with the purchase of whey protein, consumers get multivitamins or some other health supplement. This would help increase sale revenues, build better brand awareness and foster better consumer perception of whey protein as a healthy and beneficial lifestyle product.

#### 5.5 Future Research

This study has contributed to research about an important supplement product for athletes as well as general consumers who exercise and follow physical fitness regimens. Whey protein is the most popular and effective supplement to help fitness enthusiasts improve muscle growth and strength and generally gain the most from their workouts. Developments in technology and the emergence of new products, new packaging and/or new modes of product consumption are all areas for future research. As suggested above, convenience has been identified in this study as an

important factor in consumer's perceptions of whey protein and this is an area in need of more research. This research could, for example, undertake a trial sale of pre-prepared, ready to drink whey protein products in supermarkets or pharmaceutical shops. The study could not determine consumer demand for the product in terms of measuring sales etcetera but undertake market research by surveying the people who buy and consume it. Another focus for future research could be nonusers of whey protein. This research might develop an education program or series of activities that engage nonusers to consume whey protein in a trial experiment. Data could then be collected from the participants to determine how their attitudes changed after the educational program and/or trial use of whey protein. Such research would be beneficial to furthering market knowledge about whey protein and other such health products among Bangkok consumers.



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