

An update of the milk market in Vietnam

Lactose-free dairy opportunity

Nhi Nguyen

Degree Thesis
International Business
2014

DEGREE THESIS			
Arcada			
Degree Programme:	International Business		
Identification number: 13350			
Author:	r: Nguyen Yen Nhi		
Title:	An update of the milk market in Vietnam		
	Lactose-free dairy opportunity		
Supervisor (Arcada):	Svein Eldon		
Supervisor (Treasur).	D (OIII DIGOII		
Commissioned by:	The Case Company		

Abstract:

The dairy industry in Vietnam is a dynamic sector that shows continuous growth during the past ten years. Opportunities are now so vast for foreign milk producers to enter this market with their lactose free brands especially when lactose intolerance awareness is increasing gradually among Vietnamese people. The thesis provides an update of the dairy market in Vietnam, including current condition, major players, and factors influencing consumer behaviors in order to find out if there is a demand for lactose-free dairy products on the Vietnamese market. In the empirical research, a survey is conducted to collect data regarding consumer behavior in Vietnam. The scope of the quantitative research is limited in the Vietnam market, mostly in Ho Chi Minh City, which has the highest dairy consumption nationwide. Vietnamese consumers are "demanding, open-minded, and adventurous" like the Asian in general. The "western brand oriented" psychology influences the milk shoppers' decision in Vietnam to a great extent. The key products of Vietnam milk market are powder milk, milk in form of liquid, fermented milk product, condensed milk and soy milk. Leader of powder milk sector is Abbott; of the liquid milk, fermented milk product, condensed milk sectors is Vinamilk; of soya milk sector is Vinasoy. Adults from non-milking area like Vietnam have lactose mal-absorption according to Simoon's hypothesis. Vietnam can be part of the booming of lactose-free dairy market in Asia.

Keywords: Lactose intolerance, dairy market, Vietnam, consumer			
	havior, Asian perspective		
Number of pages:	64		
Language:	English		
Date of acceptance:	16.06.2014		

CONTENTS

1	Intr	oduction	8
	1.1	Motivation for the choice of research topic	8
	1.2	Aim of research and research questions	8
	1.3	Description of methods	9
	1.4	Limitation	9
2	Lite	erature review	9
	2.1	Consumer Behavior – an Asian perspective	9
	2.1.	1 The Asian consumer-driven market	9
	2.1.	2 Factors influencing consumer behavior	10
	2.2	Lactose intolerance in Asia-Pacific	12
	2.3	Lactose intolerance in adult Vietnamese	12
	2.4	The dairy market in Vietnam	13
	2.4.	1 Powder milk	15
	2.4.	2 Liquid milk	17
	2.4.	3 Fermented milk product	18
	2.4.	4 Condensed milk	18
	2.4.	5 Soya milk	19
3	Cas	se Company	20
4	Res	search Methodology	21
	4.1	Research approach	21
	4.2	Research strategy	21
	4.3	Sample design	22
	4.4	Credibility of the research findings	22
	4.4.	1 Validity	22
	4.4.	2 Reliability	23
5	PRI	ESENTATION OF RESULT	23
	5.1	Sample description	23
	5.2	Consumer habits	26
	5.2.	1 Different purposes of consuming milk products	26
	5.2.	2 How often milk products are purchased	27
	5.2.	3 Brand choices of milk products consumers	30
	5.2.	4 Reasons of switching to a new brand	32
	5.2.	5 Factors influence the brand choice	33
	5.2.	6 Marketing strategies affect the purchasing decision	35

5	5.2.7	How much is spent at one purchase	37
5	5.2.8	How long one time of purchase last	39
5.2.9		Where to shop milk products	40
5	5.2.10	Potential of buying newly introduced products	41
5.3	Pot	ential for lactose-free market on Vietnamese milk market	42
5.4	Sur	nmary of key findings	44
6 [Discus	sion and recommendations	47
6.1	Wh	at are the habits of consuming milk in Vietnam?	47
6.2	Wh	o are the main players of the market?	48
ϵ	5.2.1	Powder milk	48
ϵ	6.2.2	Liquid milk	48
6	5.2.3	Fermented milk product	49
ϵ	6.2.4	Condensed milk	49
ϵ	6.2.5	Soya milk	49
6.3	ls tl	nere a demand for lactose-free dairy products in Vietnam?	50
7 (Conclu	sion	50
Refe	rences		52
Appe	endices	S	55

Figures

Figure 1- Import value regarding milk product to Vietnam in first 6 months of 2013 14
Figure 2-Key products of the Vietnamese milk market
Figure 4- Market share of the milk-powder sector (Euromonitor International 2010) 17
Figure 5- Market share of the liquid-milk sector
Figure 6- Market share of the soya-milk sector
Figure 9 – Question 2: Different purposes of consuming milk products
Figure 10- Question 3: Regularity of consuming milk products in Vietnamese families
on the scale of
Figure 11- Regularity of consuming milk products in Vietnamese families living in box
sexes on the scale of
Figure 12- Question 3: Regularity of consuming milk products in Vietnamese families
living in Ho Chi Minh City and other cities on the scale of 1: Never, 2: Sometimes, 3:
Often, 4: Very Often
Figure 13 - Question 4: Milk brand usage on the scale of 1: Never, 2: Used to purchase
but not anymore, 3: Occasionally, 4: Most regularly
Figure 14- Question 4: Milk brand usage in term of sex
Figure 15- Question 4: Milk brand usage in Ho Chi Minh City and other cities in
Vietnam on the scale of 1: Never, 2: Used to purchase but not anymore, 3: Occasionally,
4: Most regularly
Figure 16- Question 5: Reasons of switching to a new brand
Figure 17- Question 6: Importance of these factors to the respondents' purchasing
decision on the scale of "1" as "not important", "2" as "not very important", "3" as
"somewhat important", "4" as "important" and "5" as "very important"
Figure 18- Question 6: Importance of these factors to the respondents' purchasing
decision in term of sex
Figure 19 - Question 7: Importance of these marketing strategies to the respondents
purchase decision on the scale of "1" as "not important", "2" as "not very important",
"3" as "somewhat important", "4" as "important" and "5" as "very important" 36

Figure 20- Question 7: Importance of these marketing strategies to the respondents'
purchase decision in term of sex
Figure 21 - Question 8: How much is spent at one purchase categorized by city of
residing
Figure 22 - Question 8: How much is spent at one purchase in categorized by household
income
Figure 23- Question 8: How much is spent at one purchase categorized by sex 39
Figure 24 - Question 9: How long one time of milk purchase lasts in family with kids
and without kids
Figure 25- Question 10: Where you choose to purchase milk products
Figure 26- Question 11: Number of respondents interested in buying these new types of
milk products
Figure 27 – Question 1: Percentage of lactose intolerant interviewees
Figure 28- Number of lactose intolerant respondents interested in the introduced
products
Tables
Table 1. Yogurt market share in term of product type in 2012
Table 2. Yogurt market share in term of flavor in 2012

FOREWORD

I thank you teachers for being my supervisors, guiders and mentors for your endless support upon the completion of my thesis. My deepest gratitude to Sveinn Eldon, Christel Willför, Janne Nyberg and the Case Company respresentatives - Kati Oikarinen, Katja Koliini, Koski-Korhonen Merja, Laura Enbom and Erkki Tuomi for recommending the Case Company to me.

I thank you, my family for always being there for me, encouraging me during the whole journey. Mom, dad, grandma and Quan, you are the biggest inspirations of my life.

I thank you, Henri for pushing me, challenging me to overcome the hardship of composing a thesis work as well as being such a sweetheart taking care of me whenever I needed you.

I thank you, friends for being there for me always.

1 INTRODUCTION

1.1 Motivation for the choice of research topic

The dairy industry in Vietnam is a dynamic sector that shows continuous growth during the past ten years; yet the domestic milk production is still under-developed because it can only meet up around 20 to 28 percent of the national demand (P.Anh, 2013). Besides, the current milk market in Vietnam is extremely western-oriented, 60 percent of the milk products in Vietnam are imported from various countries such as New Zealand, the United States of America, Singapore, the Netherlands, etc (Kha, 2013). Although there are numerous varieties of milk products, the lactose-free milk products have not been paid enough attention to. Only until November, 2013 the first lactose-free product was introduced for the very first time by the national milk company- Vinamilk Corporation (Vu Van, 2013). Opportunities are now so vast for foreign milk producers to enter this market with their lactose free brands especially when lactose intolerance awareness is increasing gradually among Vietnamese people.

1.2 Aim of research and research questions

The Case Company was interested in studying the Vietnamese lactose-free dairy market in order to gain an update of it. The author was assigned to conduct a research focusing on consumer behavior and market update. Therefore, the main research question and subordinate research questions are formed.

The main research question: "Is there a potential lactose-free dairy market for the Case Company in Vietnam?"

The main aims of the thesis are to assist the Case Company with answering the main research question and providing the relevant information for decision making based on *sub-questions*. In order to achieve these objectives, the sub research questions are identified when the author has the discussion with the Export Manager of the Case Company:

- What are the habits of consuming milk in Vietnam?
- Who are the main players of the market?
- Is there a demand for lactose-free dairy products on the Vietnamese market?

1.3 Description of methods

A deductive approach and quantitative strategy will be used to support the theoretical framework. A survey is conducted to collect data regarding consumer behavior in Vietnam.

1.4 Limitation

The scope of the quantitative research is limited in the Vietnam market, in particularly Ho Chi Minh City. However, the rural area will not be excluded for it still creates a significant probability for the test.

2 LITERATURE REVIEW

2.1 Consumer Behavior - an Asian perspective

2.1.1 The Asian consumer-driven market

As the widely placed Hong Kong Bank advert says, "There are 3 billion people in Asia. Half of them are under 25. Consider it a growing market." The Asian continent, from India to Japan, accounts for half of the world's population. Within five years or less, more than half of these Asian households will be able to buy an array of consumer goods. As many as half a billion will become the middle class, representing the size of the US and Europe markets roughly combined. In the context of the region's rapid growth, companies that do not have at least a third of their revenues coming from Asia cannot hope to remain sustainable global players. Companies wanting to sell to Asia should not look at Asia city by city; they should look at Asia as market centers. In approach they should not differ one from another. But selling to urban and rural within the

same country can be very different. Marketing should not recognize countries but examine common profiles in different market centers. (Naisbitt, 1997)

In a McKinsey Quarterly issue (*Asia's next export innovation*. 2005) Asia is emerging to an even more significant catalyst for product and process innovation that it was before. There are two factors contribute to this transformation. The first one is the low income of consumers with an average annual income of less than \$6000. The other is the spending behavior of this group of consumers, who, by Western standards, are unusually youthful, demanding, open-minded, and adventurous. One example is that the studied Asian consumers try out an average of 6.2 brands a year of a given consumer product compared to 2.0 in the US. To penetrate this vast market, companies must charge prices that the majority of its consumers can afford. Over the years, consumer-packed goods companies have reduced their products' unit size in emerging markets to unlock demand among consumer who cannot afford larger proportions.

2.1.2 Factors influencing consumer behavior

We are witnessing the erosion of influence of brand names. It is not that brands do not have value, but the value is not the blind force it used to be. A couple generations ago, people chose their brands early in life and stuck by them loyally until their last shopping trip. Nowadays, every decision is a new one; nothing can be taken for granted. (Underhill, 2003)

While branding and traditional advertising build brand awareness and purchase tendency, they are not always the factors that generate sales. Many purchasing decision are made, or can be influenced, on the ground of the store itself. Shoppers are inclined to impressions and information they gather in stores, other than merely relying on brand-name loyalty or advertising to tell them what to buy. The store and its aisle is an important means for transmitting messages and closing sales. That building, that place is great large three-dimensional advertisements for itself, making the shoppers either likelier or less likely buy a particular item (or any item at all). Studying the "science of shopping", Paco Underhill suggests the utilization of these tools: "How to design signs that shoppers will actually read and how to make sure each message is in the appropriate place. How to fashion displays that shoppers can examine comfortably and easily. How to ensure that shoppers can reach, and want to reach, every part of the store." The

longer a shopper remains in a store, the more he or she will buy. The amount of time that a shopper spends in a store is dependent on how enjoyable is the experience. (Underhill, 2003)

Representative of Vietnamese Ministry of Industry and Trade when being interviewed by the press claimed that at the moment there are 200 private enterprises that import and export milk. Commonly, if there are such a large number of businesses, the price competition is undoubtedly fierce with constant effort of staying price competitive. However, milk companies corner the milk market by collaborating in raising the product prices simultaneously. The main ground for these organizations to achieve this is the "western brand oriented" psychology of Vietnamese consumers. The excessive demand for imported brands has lead to an undersupply generating an advantage of taking over the market share easily. An example of this is even though imported milk products has been constantly raising their price, the customers still keep coming and their market exposure still remains the same, not being diminished even after the randomly continuous price raises. The "western brand oriented" trend among Vietnamese consumers derives from the era when the economy is underdeveloped. This psychology has developed strongly within the purchasing habits of Vietnamese consumers through all the years. (Nguyen, 2014)

Minh Vu (Vu, 2009) reports that the average import tariff for milk powder products and its ingredient to Vietnam is under 7 percent, which is consider to be lower compared to that in Thailand (0-40 percent). Nevertheless, the pricing of milk powdered products in Vietnam is 20-60 percent higher than those in Thailand. There is case that it is even 200 percent higher. In particular, Abbott's "Ensure Gold" retail price in Vietnam is 20-30 percent higher than the same kind in Thailand. "Enfa Grow 3+" of MeadJohnson in Vietnam is 60 percent higher than in Thailand. "Dumex Durgo 1, 2, 3" in Vietnam is 100-150 percent higher than in Thailand, Malaysia, and Indonesia. The difference between the reported prices of imported milk-powder products is 200-300 percent higher than retail price. Imported price of EnfaGrow A+ of Mead Johnson 900 gram is 242 percent higher than its retail price. Gain and Pedia Sure 400 gram of Abbott are 200 and 246 percent higher respectively. According to the Vietnam Competition Authority organization, western milk empires are achieving super profit in Vietnam. (Lan, 2009) Vietnam-

ese consumers are paying money from their pockets for the foreign brands to buy the feeling of safety, believing that the quality and formula is better. An inexpensive good is regarded as of low-quality to the majority of Vietnamese shoppers. Additionally, the studied consumers believe that Danish, French, Holland, Japanese milk brands have better product quality compared to the Vietnamese ones. However, a number of exported milk brands revealed that they are more favored on their export market but hardly has any market share on their domestic one.

2.2 Lactose intolerance in Asia-Pacific

(Prescott, 2012) In an article regarding the booming of lactose-free dairy market, Julian Mellentin, the director of New Nutrition Business says under-developed market like Asia and South America are considered the next big opportunity for this industry. He added that the listed regions were falling behind Europe and the US in lactose-free dairy, but they are expected to boost high growth in the upcoming future and to be examined carefully. (Hudson, 2010) Compared to a 3% of white Western European heritage people having lactose intolerance problem, there is an estimation of 90% of East and Southeast Asians who suffer the same thing. However, people of Asian countries with a history of farm milking, like India and Mongolia, are much less affected.

2.3 Lactose intolerance in adult Vietnamese

(Anh et al., 1977) In the American Journal of Clinical Nutrition 30, a study of lactose mal-absorption in adult Vietnamese was conducted among 31 people by obtaining diet histories and performing oral lactose tolerance tests. The age of the subjects ranged from 22 to 63 (average is 37 years old). The subjects and their parents were all born in Vietnam but in different regions. Their intake of dairy products was recorded. Then the lactose tolerance test were carried out by using 1 g of lactose per kilogram of body weight using the method of Nelson-Somogyi to determine capillary blood glucose. The result in all 31 adult Vietnamese showed abnormal lactose tolerance tests with a mean blood glucose rise of 5mg per 100ml over fasting levels (range 0 to 16 mg/ 100 ml). Twenty had the symptoms during or immediately after the tests where they were asked to drink milk. Lactose mal-absorption was present in all 31 tested subjects. The study

supports Simoons' theory that high number of cases of lactose mal-absorption could be found among adults from the traditional non-milking areas. It was explained when visitors to Cochin China in 1819-1830 noticed that cows were not milked and the people had the unwillingness for milk. Even though milk was utilized by part of the population in the early 1900's under the influence of French and other European, it was in the form of canned milk and ice-cream, because of the little milking of local animals. This also appeared in the recent case of Vietnam, most subjects in the study used canned or powdered milk and only occasionally fresh milk. It is of interest that they preferred and had drunk canned milk sweetened with sucrose, rather than non-sweetened canned milk. Due to the higher osmolality of sucrose milk, the stomach empties it slower so that the symptoms of lactose mal-absorption may not readily be produced. That is why even nowadays the majority lactose-intolerant Vietnamese are still under the impression that they are lactose tolerant.

2.4 The dairy market in Vietnam

The Vietnamese milk industry is one of most stable sectors, which has shown a constant steady growth despite of the economic recessions. It has the fastest growth rate among the rest of the food industries and it will continue to stabilize the high growth rate in a longer term according to Au Viet Securities's projection (BVSC, 2009). This is due to the fact that the milk-consumption-per-person in Vietnam (14.81 liter/year) is significantly low compared to other nations in Asia (Thailand 23liter/year and China 25 liter/year); therefore, the immense potential of this market is in the process of being fully utilized (Khanh, 2011). Additionally, the rate disposable income increases proportionally with milk product consumption.

(Huong, 2011) Although there have been 300 milk brands belonging to a total of 60 companies participating in the industry, they can only meet up to 20 to 25 percent of the domestic demand. For that reason, imported milk products dominate the milk market of Vietnam, taking over 60 percent of the market share. (Kha, 2013) Vietnam imports milk products and ingredients mainly from New Zealand, USA, Thailand, Singapore, Netherland and other countries such as Japan, Korea and Denmark (see Figure 1). New Zealand accounts for nearly 30 percent of the total amount of milk import.

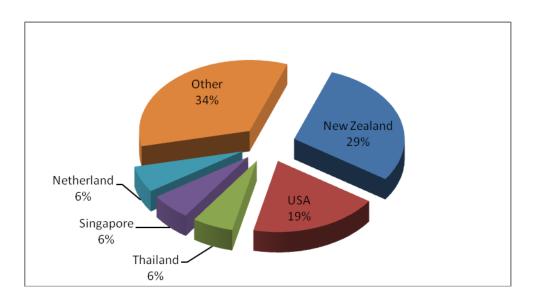


Figure 1- Import value regarding milk product to Vietnam in first 6 months of 2013

The key products of this market are powder milk, milk in form of liquid, fermented milk product, condensed milk and soy milk. (Hoa, 2011) According to Euromonitor International, in 2009 its market share is 40.7 percent, 31.6 percent, 10.6 percent, 15.6 percent and 1.5 percent respectively (Figure 2). However, there was not any lactose-free product on the market until recently in November 2013; Vinamilk Corp. introduces the first lactose-free product called "Flex without Lactoza" to Vietnamese consumers (Vu Van, 2013). Lactose-free product awareness is still an unfamiliar concept to Vietnamese people.

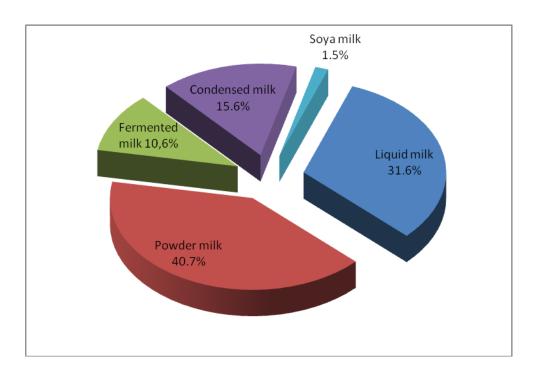


Figure 2-Key products of the Vietnamese milk market

2.4.1 Powder milk

The milk powder sector in Vietnam has the revenue of 2 359 billion VND in 2012 (approximately 80.2 million Euros) accounting for one fourth of the total milk market's. This sector has the average growth rate of 7 percent per year. Around 300 milk brands are present on the market, the majority of which are foreign-owned. In 2012, 70 percent of 65 000 tons consumed milk powder was imported with an average price of 400 000 VND/kg (€13.82) while only 30% is domestically produced at the price of 280 000 VND/kg (€9.68). (Trang, 2013) Leading in the industry, Abbott comprises of 24 percent of the market; Vinamilk, MeadJohnson, FrieslandCampina follow up respectively with 19 percent, 14 percent and 14 percent of market share. (Lam, 2013)

Assuming that only brands' market share is taken into consideration, "Dielac" of Vinamilk dominates 12.8 percent of the whole market while "Gain" of Abbott comes in second place. The reason why Abbott does not come first in this category is that the company divides its products into smaller streams; while Vinamilk does not. Additionally, there is a significant share for brands imported by the unofficial distributor; it makes up 14 percent of the whole market. S26 (Australia) and Hipp (Germany) are two brands belonging to this "non-mainstream" import. (Lam, 2013)

To compete with the western brands that are rich in capitals and strong in branding, local producers utilize their internal resources to implement inexpensive strategies. Domestic products' price is cheaper compared to the imported ones, as the local companies like Vinamilk and Nutifood are willing to take low profits on each product. Despite being affected with the increase in price of imported milk ingredients, the national milk company- Vinamilk announces to not raise the price but to stabilize it in the long run. Regarding this line of product, Vinamilk only packages and distributes, because the company is completely dependent on imported milk powder ingredients. (Lam, 2013)

Statistics from Euromonitor shows that most of people having average income of above average income tend to use imported brands. Due to high brand awareness and custom-er-oriented marketing strategy, foreign labels are more favored by Vietnamese consumers. In fact, there has not been any study either comparing quality of local and western milk products or showing that there is a difference in nutrient supplement of the two kinds. Yet more money is coming out of consumers' pocket for labels with more added nutrient formula. Marketing plays the crucial part in this industry, so Nestle and MeadJohnson spend a generous amount on advertising, which is 30 percent of their total overhead. According to AC Nielsen market survey, it points out that powder milk for kids belongs to the group with extremely high brand loyalty and is weakly correlated with inflation.

Evaluating on the number of current milk enterprises, the author can see that milk powder's market share competition is rather stiff between western brands, and it has been a genuine struggle for the domestic ones to participate in. With all the advantages of strong branding and capital, western milk-powder brands will still remain prominent regardless of the inevitable price increase in the near future.

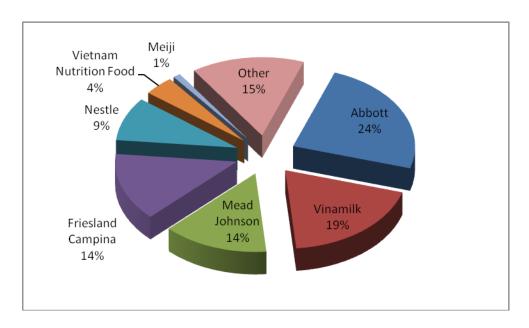


Figure 3- Market share of the milk-powder sector (Euromonitor International 2010)

2.4.2 Liquid milk

Based on "The Report of Milk Production in 2012", Dr. Tong Xuan Chinh from the National Agriculture Department predicted that Vinamilk will be the leader of the liquid-milk market, owning 40-50 percent of the market share. Dutch Lady will hold 25 percent, Moc Chau 10 percent, IDP Ba Vi Milk 5 percent, Hanoimilk 5 percent and 15 percent belongs to the others. The report did not mention TH Milk Company, but it is estimated particularly to control approximately 30 percent of the market in the Northern part of Vietnam. (Phong, 2013)

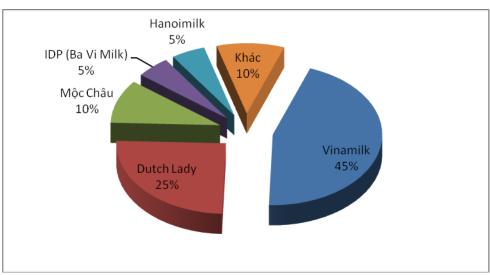


Figure 4- Market share of the liquid-milk sector

2.4.3 Fermented milk product

In 2012, Vinamilk held the largest share of the fermented milk products' market, 90%, achieving the highest growth rate in the company history with 99% compared to the previous year 2011. Vinamilk states that it has 200 000 retail shops all over Vietnam in its distributing channel with 250 exclusive distributors. Vinamilk also caters the yogurt supply to numerous schools in Ho Chi Minh City. There are other competitors on this market, such as FrieslandCampina with "Yomost", Kinh Do with "Well-Yo", IDP with "Love in Farm", Dalatmilk with "Yogus" and other foreign brands such as "Milch Geister", "Kids Mix" of Germany. "Love in Farm" is confirmed to come in second place respresenting 7-8% of the market share. Besides the distributing channel, storing and coverage are dependent on product plants. Vinamilk is dominant with 11 plants from the North to South while IDP only owns 2 in the North and is in the process of establishing another one in the South. (Hai and Nhi, 2013)

Table 1. Yogurt market share in term of product type in 2012

Product type	Traditional yogurt	Probiotic yogurt	Premium yogurt
Percentage %	82	10	8

Table 2. Yogurt market share in term of flavor in 2012

Flavor type	Sweetened	Aloe vera	Strawberry	Fruity	Other
Percentage %	60	20	2.5	2.5	15

2.4.4 Condensed milk

(Vinamilk, 2013) There are only a few condensed milk products on the market, two of them are "Ong Tho" and "Ngoi Sao Phuong Nam" of Vinamilk, accounting for 80% of the market exposure. (Hoa, 2011) According to Euromonitor International, in 2009 Vinamilk controlled the condensed milk market with 79% ownership with its two listed

brands, Friesland Campina joined in later with 21% share with 3 brands "Dutch Lady", "Hoan Hao" and "Truong Sinh". The average growth of this milk industry is 10% per year but in the period from 2009 to 2014, it has reduced to 3%, the lowest rate compared to other milk industries. The reason behind this is that consumers have shifted the use to fresh milk instead of condensed dairy.

2.4.5 Soya milk

(Do, 2013) Euromonitor projected that Compound Annual Growth Rate (CAGR) from 2009-2014 of soya milk industry will reach 7.7% surpassing powder milk of 6.9% and liquid dairy of 7.5%. "Soya Number One" is a prime product of Tan Hiep Phat, while "Fami" is targeted for families and "Vinasoy" for the female are the key brands of Vinasoy. "GoldSoy" and "V-fresh" are the other two names on the soya market belonging to Vinamilk. Together, Vinasoy and Vinamilk soya products take 90% of the market share. Their products are available in supermarkets from small to mega size in 6 different cities: Ho Chi minh, Ha Noi, Da Nang, Nha Trang, Can Tho, Hai Phong. Vinasoy shares 78% of the market and launched the second production plant in Bac Ninh in July, 2013. It is positioned as a leading company with superior growth of 40% per year on average in the recent 10 years.

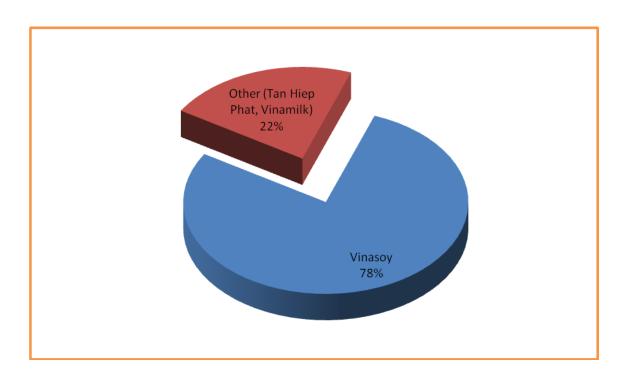


Figure 5- Market share of the soya-milk sector

3 CASE COMPANY

Being the producer of world's first lactose free milk drink with the real taste of milk, the Case Company is still the market leader in Europe. It exports a selection of lactose free milk products to Denmark, Estonia, Latvia, Lithuania, Russia and Sweden. The company started lactose free technology sales in 2003 and licensees are currently active in the Netherlands, Norway, South Korea, Spain and Switzerland. The first lactose free milk powder ingredient for the food industry was launched in 2007.

The initiative to apply this advanced technology to the production of lactose free milk drink got the case company to the market first. Combined with the swift extension of the product range, the Case Company has brought remarkable success to itself and its licensing partners. The value added for its consumer is the real milk taste. Realizing the potential of the lactose-free dairy market in Vietnam, the company assigned the author to deliver an update of the entire market in order to evaluate the opportunity.

4 RESEARCH METHODOLOGY

4.1 Research approach

(Saunders, 2009) Deduction and induction are the two main approaches for a research project. With deduction, a theory and hypotheses are developed and thereafter a research strategy is designed to test the hypothesis. While with induction, data are collected and a theory developed as a result of the data analysis. Based on the nature of the research, which requires testing a hypothesis with the utilization of quantitative data collection, the author's research follows the deductive approach. The lactose free market in Vietnam is still new, still debating if there such existence, it is more rational to gather data, analyze and find out what the data is representing. As the author is motivated to find out about the issue, therefore a consumer insight must be gained to evaluate the proposition. The reviewing of literature and information resources is prudently conducted as well as the sample selection of sufficient size for generalizing conclusions. The induction approach is however not chosen because first of all, a qualitative data collection is not needed for the research; secondly, the emphasis of the study is not permitted to change as it progresses and lastly, this approach has less concern with the generalization.

Furthermore, (Saunders, 2009) suggests that two main criteria should be considered in selecting the right approach: the nature of the research topic and research time frame. The nature of this thesis is explanatory applied business research and it is conducted in a limited time frame of two months. Therefore, the author comes to a decision to adopt the deductive approach throughout the research.

4.2 Research strategy

The survey strategy is usually associated with the deductive approach. It is a common and frequently used strategy in business and management research (Saunders, 2009). Because of its explanatory and descriptive characteristics, the author uses this strategy for this research and a questionnaire as the data collection technique. The obtained data are standardized and administered to a sample for comparison. They also suggest possible reasons for particular relationships between variables and produce models for these

relationships. Sampling is used to design a representative sample so that the findings are also representative of the whole population.

The study requires both primary and secondary data. In the theoretical framework, primary data are the author's personal observations and reasoning whereas secondary data are published resources. In the author's empirical part, data are to be collected from primary source, an online survey. As for secondary sources, the author utilizes newspapers articles, company's reports and previous research relating to the research topic.

4.3 Sample design

Sampling provides a valid alterative to a census within this research's time frame. The organization of data collection is more manageable when fewer people are involved (Saunders, 2009). Between probability and non-probability sampling, the author chose the former method. This allows the author to answer the research questions requiring statistical estimations of the population's characteristics depriving from the sample. The survey research strategy is often associated with the probability or representative sampling. Stratified random sampling and cluster sampling are used to form a research sample. The sampling frame of stratified random method for this survey is lactose intolerance, sex, income, family size; while that cluster of method is geographical area.

4.4 Credibility of the research findings

4.4.1 Validity

There are two perspectives on validity whether if the research investigation provides answers to the research questions and if the appropriate methods and procedure were undertaken. Logic and statistical evidence are the basis to establish the validity of a research instrument (Kumar, 2005). Validity is defined as the "extent to which the researcher gains access to their participants' knowledge and experience, and is able to infer a meaning that the participant intended from the language that was used by this person" (Saunders, 2009). In this research, the chosen sample is relevant to the objective of research as described above. The respondents for quantitative research are dairy product

consumers living in Vietnam; more particularly in Ho Chi Minh City- the city has the highest milk consumption nationwide. As a result, the respondents are capable of providing valid answers for this research.

4.4.2 Reliability

(Saunders, 2009) Reliability refers to the extent to which data collection technique will produce consistent findings, similar observations would be made or conclusions reached by other researchers or there is a transparency in how sense was made from the raw data.

The questions were formed so that they are applicable to all respondents in terms of their own consuming experience and backgrounds. In order to avoid the "subject and participant" error and "subject participant bias" mentioned by (Robson, 2002), the author sends an online survey so that the respondents have access at any time; so they are given the "neutral time" to provide objective answers. Furthermore, the questionnaire is anonymous in the way that author promises to keep it secret and puts the question concerning their own information in the end of questionnaire so that respondents would be comfortable to give their answers

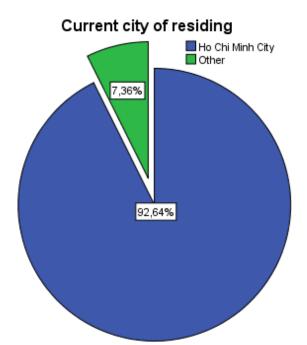
5 PRESENTATION OF RESULT

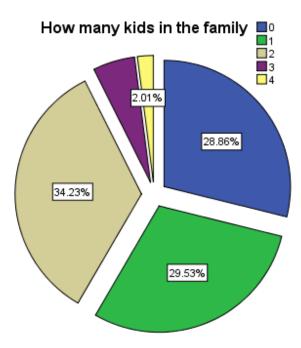
5.1 Sample description

The questionnaire is composed in accordance with the consumer behavior literature regarding brand loyalty, marketing strategies, production packaging and researching for possibilities of new products. The survey is sent out by emails, private messages on Skype, Facebook, and Google Plus. It is also posted public on a women's forum and Facebook page of the milk companies based Vietnam. As the target of this research is consumers in Vietnam, the author chose Vietnamese as the language of the survey. There are in total 15 structured questions in the questionnaire, four of which are background questions. In the responses form, the author received answers from 169 respondents.

The four demographical variables for the survey are gender, current city of residence, income and number of kids in the family. The data is demonstrated with the figures below.

The survey is targeted at milk shoppers in Ho Chi Minh City, family with kids and young family of newly married couples. Approximately 93 percent of the respondents is currently resided in Ho Chi Minh City. Around 29 percent of the population is newly married couple and 71 percent is families with kids, among which families with one or two kids accumulate of 64 percent. 74 percent of the survey's respondents are female, the key shoppers. Participants' monthly household income is distributed patchily in 7 groups, where the largest income group is 7 000 000 − 10 000 000 VND (€239.8 − €342.6, Bloomberg, 2014) accounting for 30 percent, following up the second largest group 5 000 000 − 7 000 000 VND (€171.3 − €239.8, Bloomberg, 2014) represents for 24.5 percent (see Figure 9)





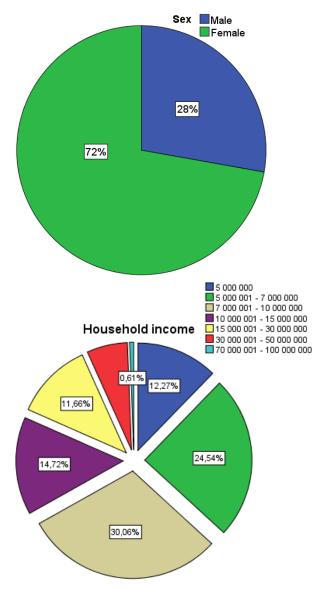


Figure 9 - Demographic information (background variables)

5.2 Consumer habits

5.2.1 Different purposes of consuming milk products

In question 2, concerning different uses of milk products, 140 of the respondents, accounting for 49% of the population of 169 participants, consume milk products to improve their height and nutrient supply. While 49 people, 18% of the researched population, uses milk products for baking, 24 (9%) use them for cooking. For body training purposes, 9% of the respondents, 25 people consume these products for body building, the remained 15% of 41 respondents aim to balance their diets.

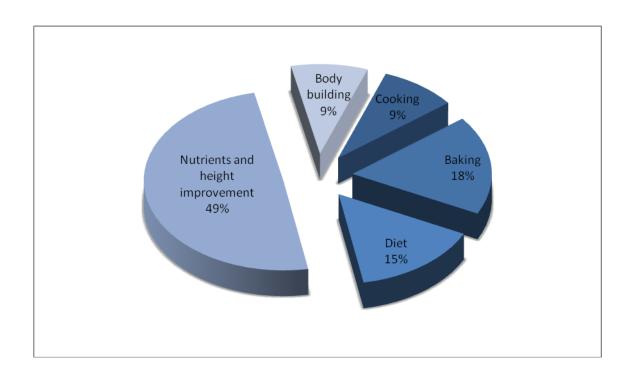


Figure 6 – Question 2: Different purposes of consuming milk products

5.2.2 How often milk products are purchased

In question 3, survey participants were asked to rank regularity of purchasing the listed milk products according to the scale of "4" for "Very often", "3" for "Often", "2" for "Sometimes" and "1" for "Never". The author gathered the set of 17 milk products that are currently available and best-known on the market of Vietnam. By employing SPSS to compare means of all 17 different milk products, the result shows that UHT milk is the most often purchased product, second most often purchased is yogurt for eating while yogurt for drinking comes after soya milk, condensed milk, ice cream, cheese ranked in 3rd, 4th, 5th, and 6th place respectively. The least purchased product is cooking and baking cream. Among the milk powder products, the ones for kids are purchased more often than those for the elderly and adults. However, pasteurized milk is purchased only sometimes, even less often than milk juice since the shortage of fresh milk ingredient supply for this market end. The chart indicates that lactose-free UHT milk is used sometimes from 78 recorded responses, 13% of which are "very often" purchased, 14% "often", 36% "sometimes" and 37% "never". (See Figure 10)

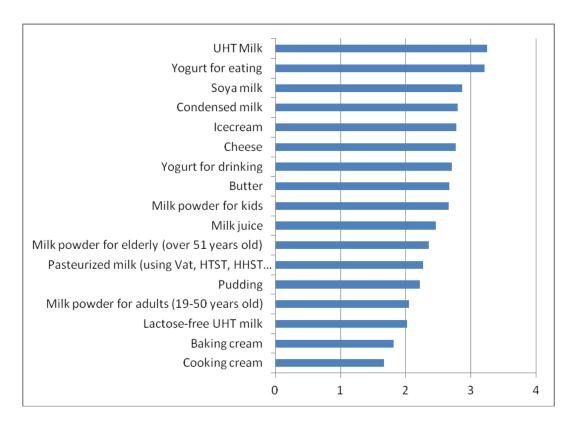


Figure 7- Question 3: Regularity of consuming milk products in Vietnamese families on the scale of

1: Never, 2: Sometimes, 3: Often, 4: Very Often

When looking at product choices from 2 sexes, there is a noticeable difference way of behaving for products of milk juice, pudding, lactose free UHT milk, milk powder for the elder. Men tend to purchase more milk juice more regularly and pudding much less often than women. Men's purchase of milk powder for the elder holds a higher index of regularity than their UHT lactose-free milk and these two purchase behavior of men are also more frequent than the women's. Because traditionally in Vietnam, the woman is the only person in charge of family's groceries shopping, this could be the reason that Vietnamese male consumption of ice cream, yogurt for drinking and milk powder for kids is significantly less often than that of the female. (See Figure 11)

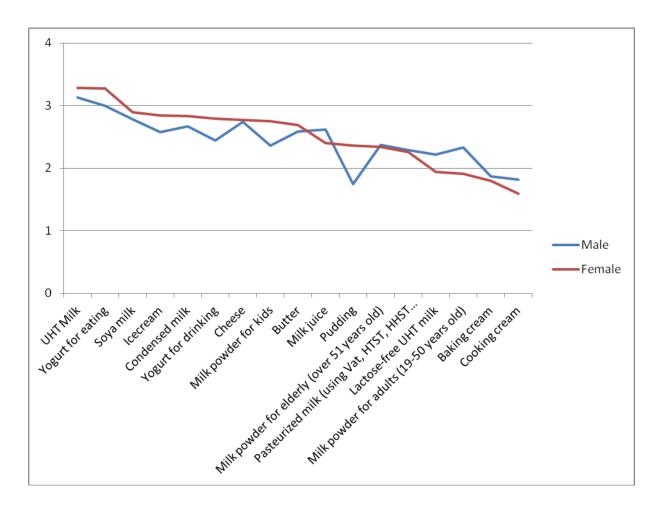


Figure 8- Regularity of consuming milk products in Vietnamese families living in box sexes on the scale of 1: Never, 2: Sometimes, 3: Often, 4: Very Often

When comparing between Ho Chi Minh City and other cities in Vietnam, residents in Ho Chi Minh City consume condensed milk, butter, cheese, milk powder for elderly, milk juice more frequently than those in the other cities. The most often consumed product in Ho Chi Minh City is UHT milk while that in other cities is yogurt for eating. People residing in other cities also consume soya milk, yogurt for drinking, pudding on a more often basis. (See Figure 12)

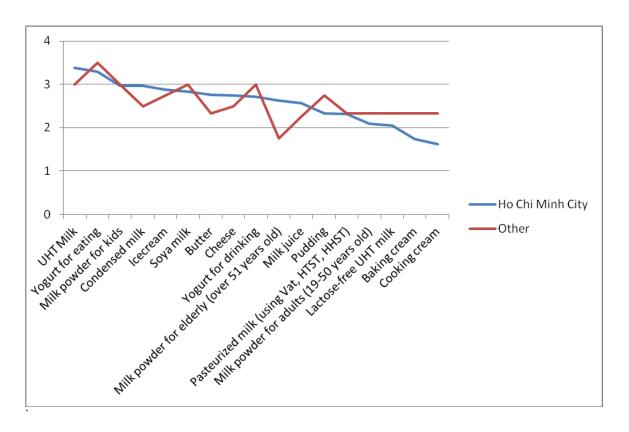


Figure 9- Question 3: Regularity of consuming milk products in Vietnamese families living in Ho Chi Minh City and other cities on the scale of 1: Never, 2: Sometimes, 3: Often, 4: Very Often

5.2.3 Brand choices of milk products consumers

In question 4 of the survey, the author researches milk brand choice of Vietnamese consumers. There are at the moment 15 milk enterprises, collected from the Vietnam milk market and listed in the questionnaire. The most popular choice of the respondents is Vinamilk, the runner up is Friesland Campina and third most chosen is Nestle. As seen in Figure 13, the least trendy are Namyang, Hanoi milk, Meiji, Moc Chau, IDP Ba Vi, Fotenrra and Dumex. Of 85 answers recorded for Nutifood, there are 38 respondents (45%) who used to purchase products of Nutifood but not anymore, 29 respondents out of 91 for Vinasoy (32%) and 29 out of 87 for Abbott (33%). 22 answers (23%) say that they have stopped being MeadJohnson consumers and 21 (21%) for TH True Milk. The output is generated by using "compare means" in SPSS.

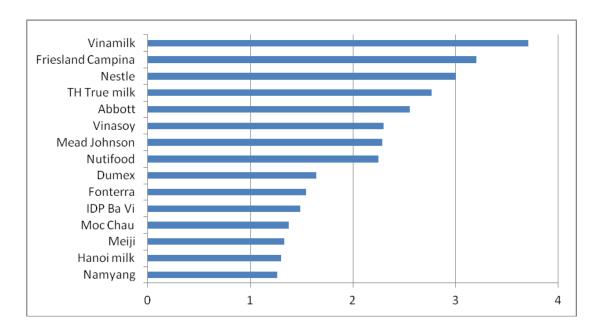


Figure 10 - Question 4: Milk brand usage on the scale of 1: Never, 2: Used to purchase but not anymore, 3: Occasionally, 4: Most regularly

When taking sex into consideration for the brand decision, male respondents tend to prefer Nutifood, Fonterra, Dumex, Nestle and Abbott more than the female do. Female are prone to pick TH True Milk and Mead Johnson more often than men. This can be explained in consistent with different milk products both sexes purchase. As men in the above discussion buy elder's milk powder product more regularly than women, which is the reason why they pick Abbott and Nutifood more often than women, because these brands offer a much wider range for this line. On the other hand, as women, not men, are responsible to buy groceries which consist of milk, milk powder for kids, Mead Johnson and TH True Milk are consequently preferred by them but not by men.

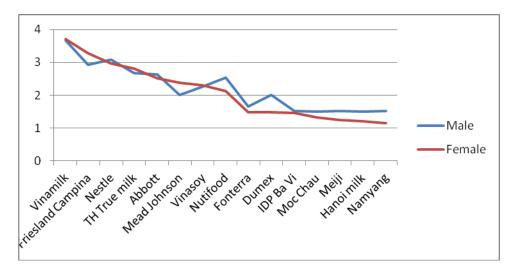


Figure 11- Question 4: Milk brand usage in term of sex

When comparing between popularity of brands in Ho Chi Minh City and other cities, only Nestle and Mead Johnson are less popular in other cities than in Ho Chi Minh City, the rest of the brands are seen as 'used more occasionally' than in Ho Chi Minh City.

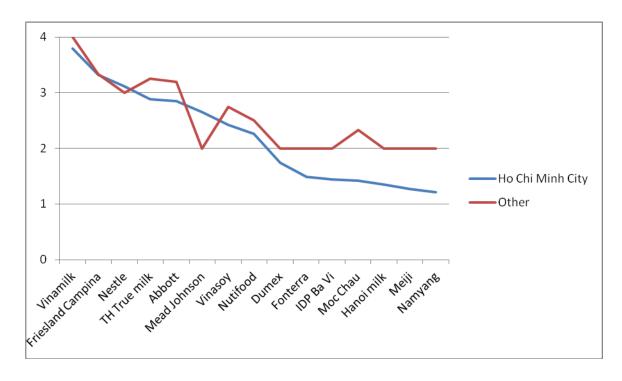


Figure 12- Question 4: Milk brand usage in Ho Chi Minh City and other cities in Vietnam on the scale of 1: Never, 2: Used to purchase but not anymore, 3: Occasionally, 4: Most regularly

5.2.4 Reasons of switching to a new brand

The brand that was refused the most by the consumers after an attempt of using (in question 4) is Nutifood, following it are Abbott, Vinasoy, Mead Johnson and TH True Milk. To understand why consumers have discarded the use of the brands, in question 5, the author finds out the reasons that customers desire to change to a different brands. 104 respondents (29%) out of 169 inform that they want to change flavors, 84 (23%) want a more reasonable price, 63 (17%) believe that the new brand has safer quality, 57 (16%) take recommendations from friends and families, 37 (10%) need better packaging for better usage, 12 (3%) are afraid that the old brand produces bad quality products and 4 (1%) discover that they are lactose intolerant.

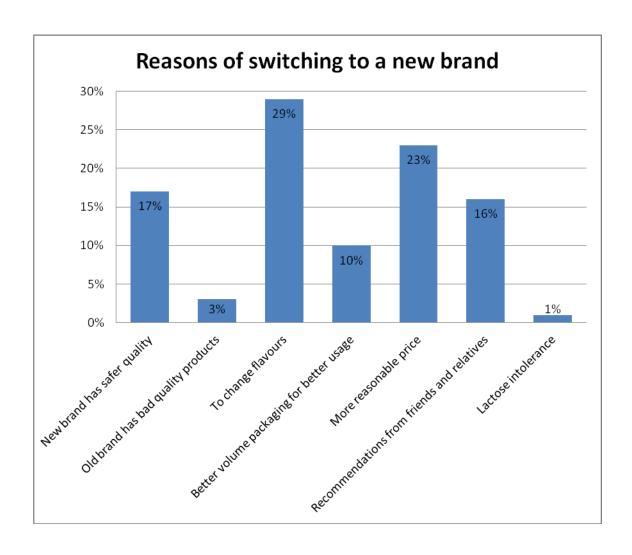


Figure 13- Question 5: Reasons of switching to a new brand

5.2.5 Factors influence the brand choice

In question 6, respondents are asked to rank the factors that influence their purchasing decision on the scale of "1" as "not important", "2" as "not very important", "3" as "somewhat important", "4" as "important" and "5" as "very important". The author utilized data output from SPSS to create the charts. The factor of labeling with innovative formulas are considered the most crucial in decision making of Vietnamese consumer, less than that is pricing, company image, flavor, tactile packaging, recommendations, promotions, being imported from abroad, package design, in the order of descending. The two least important factors affecting the consumer decision are information from the salesman and availability of lactose-free products.

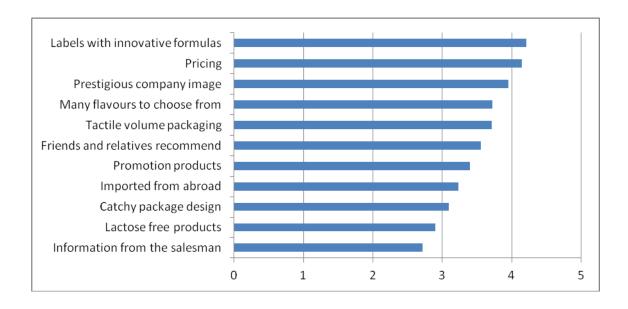


Figure 14- Question 6: Importance of these factors to the respondents' purchasing decision on the scale of "1" as "not important", "2" as "not very important", "3" as "somewhat important", "4" as "important" and "5" as "very important".

The same analysis runs for male and female, what considered as less important for male respondents are "many flavors to choose from", "imported from abroad" and in within this survey framework, the male respondents perceive that "tactile volume packaging" and availability of "lactose-free products" are more important than the way women do to them.

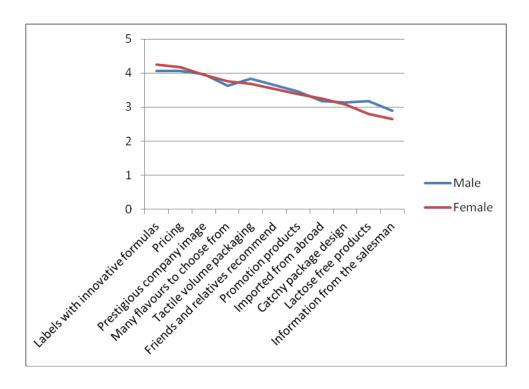


Figure 15- Question 6: Importance of these factors to the respondents' purchasing decision in term of sex

5.2.6 Marketing strategies affect the purchasing decision

In question 7 of the questionnaire, respondents have to rank the importance of effective marketing strategies to the purchasing decisions on the scale of 1 to 5. "1" as "not important", "2" as "not very important", "3" as "somewhat important", "4" as "important" and "5" as "very important". After comparing the means of these factors, the output of SPSS shows that television is rated most important to the participants. In second place comes newspaper and third place is out-of-home advertising. Below that rank, in a descending order of importance are moving ads, company website, radio and social media. The least important element contributing to the purchasing decision of Vietnamese consumers is company emails.

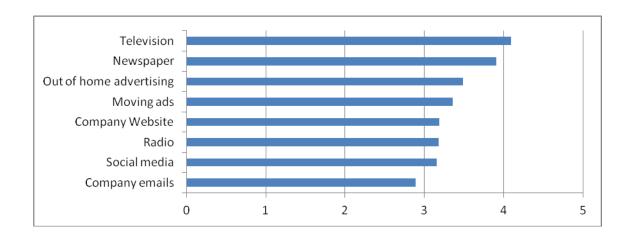


Figure 16 - Question 7: Importance of these marketing strategies to the respondents' purchase decision on the scale of "1" as "not important", "2" as "not very important", "3" as "somewhat important", "4" as "important" and "5" as "very important".

Analyzing both sexes, the factors change slightly in "out of home advertising", "radio", "social media" and noticeably in "company website" and "company emails". Male respondents rank out-of-home advertising, company website, company emails higher than the female whereas radio and social media lesser.

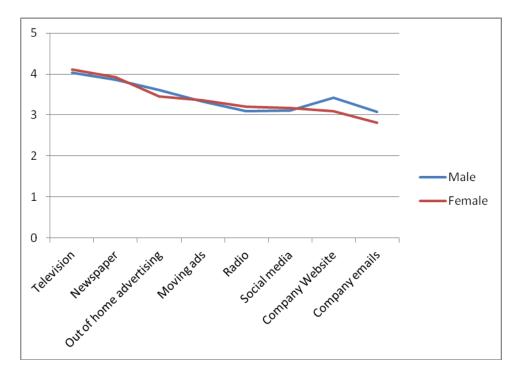
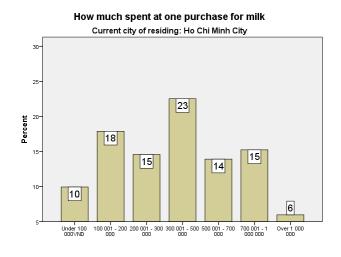


Figure 17- Question 7: Importance of these marketing strategies to the respondents' purchase decision in term of sex

5.2.7 How much is spent at one purchase

Question 8 asks the questionnaire participants for the amount of money they spent one purchase. When using SPSS to categorize the answers by city of residing, the author notices that most Ho Chi Minh City residents (23%) spend 300 000 - 500 000 VND at one purchase ($\[mathcal{\in}\]$ 10.2 - $\[mathcal{\in}\]$ 17, Bloomberg, 2014) while in other cities 29% of the population spend a little lesser- 200 000 - 300 000 VND at one time ($\[mathcal{\in}\]$ 6.8 - $\[mathcal{\in}\]$ 10.2).



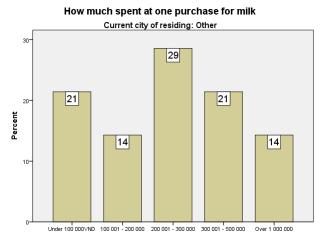


Figure 18 - Question 8: How much is spent at one purchase categorized by city of residing

Using crosstabs in SPSS, different spending behaviors of 7 group of household income are investigated. Most respondents from the 2 largest group of income 5 000 000 -7 000 000 VND (ϵ 171.3 $-\epsilon$ 239.8) and 7 000 000 -10 000 000 VND (ϵ 239.8 $-\epsilon$ 342.6) pay 300 000 -500 000 VND (ϵ 10.2 $-\epsilon$ 17), which is around 3 -10% of their household income, at one milk purchase. People with income under 5 000 000 VND (ϵ 171.3) use 100 000 -200 000 VND (ϵ 3.4 $-\epsilon$ 6.8) at one time purchase (2 -4% of household in-

come), income 10 000 000 − 15 000 000 VND (€342.6 - €512.4) and 15 000 000 - 30 000 000 (€512.4 - €1024.7) spend 200 000 - 300 000 VND (0.7% - 3%) per time.

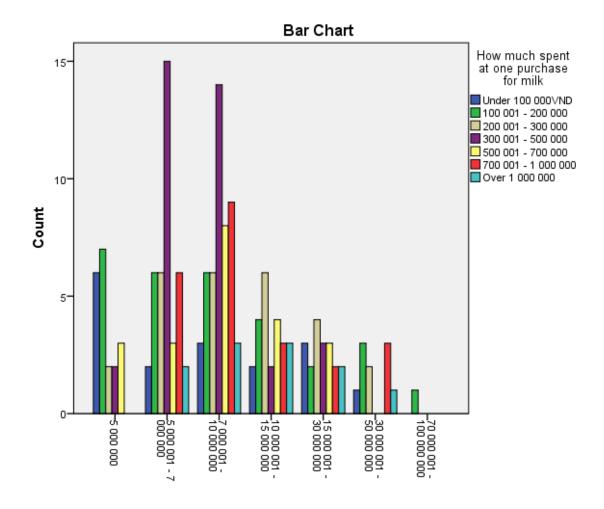


Figure 19 - Question 8: How much is spent at one purchase in categorized by household income

When analyzing both male and female respondents, the majority of both sexes spend 300 000–500 000 VND (€10.2 - €17) at one purchase. The second most spent amount of money in one purchase for men is 200 000–300 000 VND (€6.8 – €10.2) and for women, slightly lesser than that $100\ 000-200\ 000\ VND$ (€3.4 – €6.8).

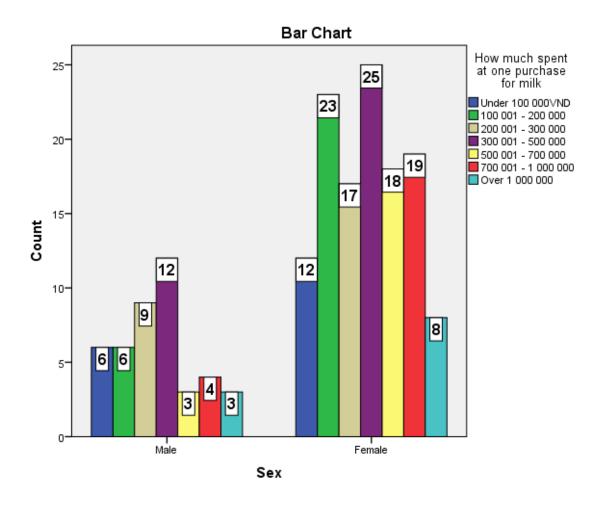


Figure 20- Question 8: How much is spent at one purchase categorized by sex

5.2.8 How long one time of purchase last

Question 9 expands information from question 8, finding out how long one purchase of milk lasts until the next shopping trip. Using SPSS to select cases of families without kids and family with at least one kid, the data shows that 42% of cases of family without kid consume milk in 6-7 days; while 37% of cases of family with at least one kid do that in 3 weeks.





Figure 21 - Question 9: How long one time of milk purchase lasts in family with kids and without kids

5.2.9 Where to shop milk products

In question 10 of the questionnaire, participants are asked about the place they shop for milk products. The result states that 31% of the responses are in supermarkets, 22% in milk stores or official distributors, 15% at groceries stores, 7% at convenience stores, 2% at shops inside local market (floating market) and 1% online.

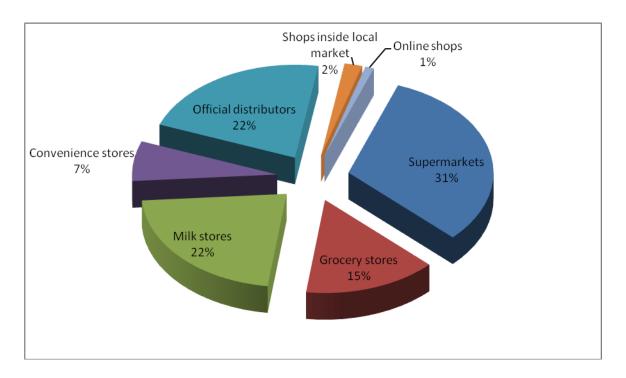


Figure 22- Question 10: Where you choose to purchase milk products

5.2.10 Potential of buying newly introduced products

In question 11, a list of products that are not on Vietnamese milk market is given, participants answer with the choices of products they would be interest in buying provided that they will be available in Vietnam in the future. 40% of them (67 people) chose soya yogurt, 37% (63 people) chose protein drinks, 36% (61 people) chose quark, 32% (54 people) chose lactose-free cheese and cream cheese, 23% (39 people) chose lactose-free yogurt, 19% (32 people) chose curd milk, 17% (29 people) chose toddler milk, 17% (28 people) chose butter milk, 11% (19 people) chose lactose-free butter, 9% (16 people) chose lactose-free cooking cream and 8% (13 people) chose lactose-free heavy cream for baking.

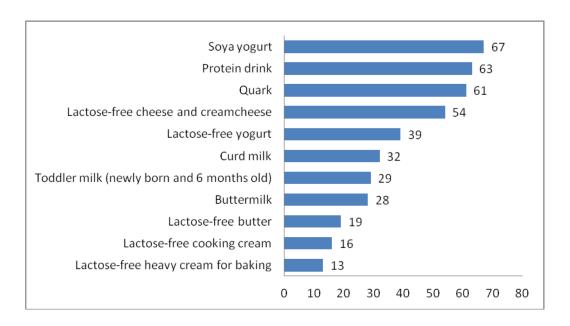


Figure 23- Question 11: Number of respondents interested in buying these new types of milk products

5.3 Potential for lactose-free market on Vietnamese milk market

To find out of there is a lactose-free milk market in Vietnam, the author must update the current awareness for lactose-intolerance among Vietnamese milk consumers. Question 1 of the survey examines the percentage of lactose intolerant respondents. There are a total of 11 people, who are lactose intolerant accounting for 7% of the population, 70 people who are not lactose intolerant – 44%, and 77 people disclose that they are not familiar with the notion of lactose intolerance – 49%.

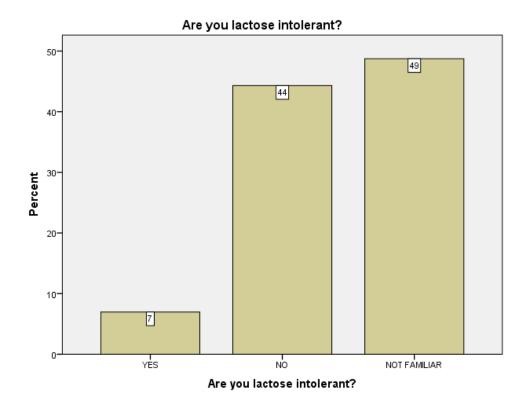


Figure 24 – Question 1: Percentage of lactose intolerant interviewees

Using SPSS to sort out 11 cases of lactose intolerant individuals in order to find out the products in question 11 that they would be interested in, the data presents that

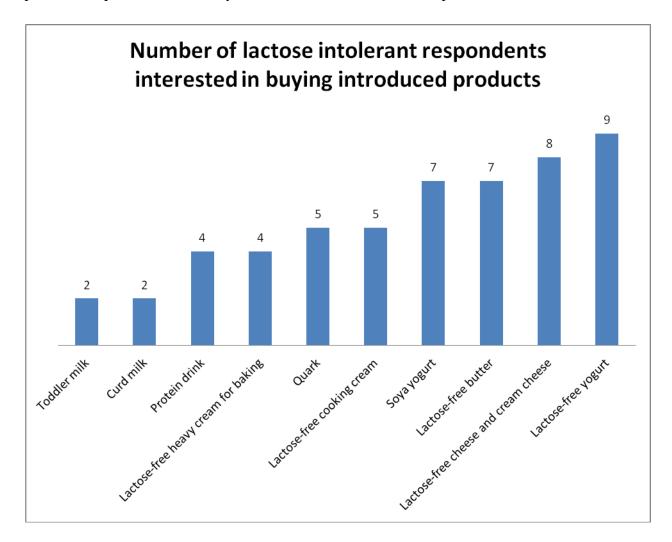


Figure 25- Number of lactose intolerant respondents interested in the introduced products

5.4 Summary of key findings

The most designated purpose of consuming milk is to improve heights and nutrient supplement.

UHT milk is the product that is purchased most frequently in the common sample.

The most often consumed milk product in Ho Chi Minh City is UHT milk while that in other cities is yogurt for eating.

Residents in Ho Chi Minh City consume condensed milk, butter, cheese, milk powder for elderly, milk juice more frequently than those in the other cities.

Men's purchase of milk powder for the elder and UHT lactose-free milk hold a higher index of regularity than the women's.

Women's consumption of ice cream, yogurt for drinking and milk powder for kids is significantly more often than men's.

Male respondents tend to prefer Nutifood, Fonterra, Dumex, Nestle and Abbott because these brands offer a much wider range for milk powder for the elder.

Female are prone to pick TH True Milk and Mead Johnson more often than men because Mead Johnson offers a much wider range of milk powder products for kids.

Nestle and Mead Johnson are less popular in other cities than in Ho Chi Minh City.

Nutifood, Abbott, Vinasoy, Mead Johnson and TH True Milk are brands that have the highest number of consumers who used to purchase them but not anymore.

Reasons of switching to new brands are to change flavors, to get a more reasonable price, to have safer quality in new brands.

The factor of labeling with innovative formulas are considered the most crucial in purchase decision-making of Vietnamese consumer, less than that is pricing, company image, flavor, tactile packaging, recommendations, promotions, being imported from abroad, package design, in the order of descending.

The male respondents perceive that "tactile volume packaging" and availability of "lactose-free products" are more important than the way women do to them in purchase decision.

Compared to men, women believe "many flavors to choose from", "imported from abroad" are more important.

Marketing strategies most affecting purchase decision to Vietnamese consumers is television, least contributing is company emails.

Out-of-home advertising, company website, company emails are preferred by male respondents than the women whereas radio and social media are reverse.

Most Ho Chi Minh City residents spend 300 000 - 500 000 VND at one purchase (€10.2 - €17) while in other cities, most of its population spend a little lesser- 200 000 - 300 000 VND at one time (€6.8 - €10.2).

Most respondents from the 2 largest group of income 5 000 000 − 7 000 000 VND (€171.3 − €239.8) and 7 000 000 -10 000 000 VND (€239.8 − €342.6) spend around 3 - 10% of their household income (300 000 − 500 000 VND (€10.2 - €17)) for one milk purchase.

The majority of both sexes spend 300 000− 500 000 VND (€10.2 - €17) at one purchase.

42% of cases of family without kid consume milk in 6-7 days; while 37% of cases of family with at least one kid do that in 3 weeks.

Supermarkets, milk stores, official distributors, groceries stores are the most popular places the respondents shop for milk products.

When being asked to give answer of products that the subjects in common sample would be interest in buying provided that they will be available in Vietnam in the future, 40% chose soya yogurt, 37% chose protein drinks, 36% chose quark, 32% chose lactose-free cheese and cream cheese.

The lactose intolerant cases would be interested in, the data presents that 82% of them picked "lactose-free yogurt", 73% picked "lactose-free cheese and cream-cheese", 64% picked "lactose-free butter" and "soya yogurt", 45% picked "lactose-free cooking"

cream" and "quark", 36% picked "lactose-free baking cream" and "protein drinks" and 18% of the 11 selected respondents picked toddler milk and curd milk.

6 DISCUSSION AND RECOMMENDATIONS

6.1 What are the habits of consuming milk in Vietnam?

The spending Asian consumers are unusually youthful, demanding, open-minded, and adventurous, judging by Western standards. Asian consumers try out more brands a year compared to the people in the US. To get closer to these customers, prices should be fixed for the majority of its consumers to be able afford. Products' unit size should be reduced to unlock demand among consumer who cannot afford larger proportions. Milk enterprises in Vietnam have made it affordable for middle class with income from 5 -10 million VND (€171.3 - €342.6). For Vietnamese consumers are also considered as "demanding, open-minded, and adventurous" like the Asian insight, they switch various milk brands to change flavors, receive better pricing policy and assure safer quality. They usually shop at supermarkets, milk stores, official distributors, groceries stores. For companies to offer best service to their customer base, these channels should always be made accessible and reachable because many purchasing decision are made, or can be influenced, on the ground of the store itself. As Vietnamese family without kid consumes milk in 6-7 days and family with at least one kid does in 3 weeks, it is a suggestion for milk producers to package their products accordingly with their customer usage. Marketing strategies that most affect purchase decision of Vietnamese consumers is television. While out-of-home advertising, company website, company emails influence male customers significant, women tend to be affected by radio and social media. Company should approach both sexes through their favored channels to maximize brand awareness.

The factor of labeling with innovative formulas on milk product is considered the most crucial in purchase decision for Vietnamese consumers for the most designated purpose of consuming milk is to improve heights and nutrient supplement. As the "western brand oriented" psychology has developed strongly within the purchasing habits of Vietnamese consumers through all the years deriving from the era when the economy is

underdeveloped, it has created the excessive demand for imported brands. Ingredients to product fresh milk in Vietnam is still not sufficient to meet up the nation's demand, UHT milk is the product that is purchased frequently recorded from the quantitative research. Additionally, residents in Ho Chi Minh City consume condensed milk, butter, cheese, milk powder for elderly, milk juice more frequently than other cities. Subjects of the research sample would be interest in buying soya yogurt, protein drinks, chose quark, lactose-free cheese and cream cheese if those products would be available in Vietnam in the future. The lactose intolerant subjects would be interested in lactose-free yogurt, lactose-free cheese and cream-cheese, lactose-free butter and soya yogurt.

6.2 Who are the main players of the market?

6.2.1 Powder milk

Leader of the industry is Abbott. Following are Vinamilk, MeadJohnson, FrieslandCampina. Female subjects of the survey are prone to pick Mead Johnson more often than men because Mead Johnson offers a much wider range of milk powder products for kids. Nestle and Mead Johnson are less popular in other cities than in Ho Chi Minh City even though they spend a generous amount on advertising, accounting 30 percent of their total overhead. Abbott and Mead Johnson are among the brands that have the highest number of consumers who used to purchase them but not anymore. Powder milk for kids belongs to the group with extremely high brand loyalty and is weakly correlated with inflation.

6.2.2 Liquid milk

Vinamilk is the leader of the liquid-milk market, owning 40-50 percent of the market share. Other players in this industry are Dutch Lady, Moc Chau, IDP Ba Vi Milk, Hanoimilk and TH True Milk. Female subjects of the research are reported to choose TH True Milk more often than men but the brand also has a high number of customers who used to purchase it but not anymore. In the quantitative research, Vinamilk is again ranked the most popular, after that is Friesland Campina (Dutch lady), Nestle and TH True Milk. Of the products that were stated in the survey, associated with the liquid

milk, UHT milk is the most often purchased, lesser purchased are yogurt for eating, soya milk and condensed milk.

6.2.3 Fermented milk product

Vinamilk holds the largest share of the fermented milk products' market. There are other competitors on this market, such as FrieslandCampina, Kinh Do, IDP, Dalatmilk. Compared to Ho Chi Minh City, yogurt for eating is the most often consumed milk product. It is a second most popular purchased product by the survey participants. 82% of the lactose-intolerant respondents would like very much to try lactose-free yogurt the most when it arrives to the Vietnam market in the future.

6.2.4 Condensed milk

Vinamilk is again the pioneer in another industry, condensed milk. Friesland Campina takes the remained share. Residents in Ho Chi Minh City consume condensed milk more frequently than those in the other cities. Vietnamese often drink canned or powdered milk and only occasionally fresh milk. Since canned milk sweetened is with sucrose, the symptoms of lactose intolerance are not shown clearly. That is why even nowadays the majority lactose-intolerant Vietnamese are still under the impression that they are lactose tolerant.

6.2.5 Soya milk

Vinasoy is a leading company in the field; Tan Hiep Phat and Vinamilk are still catching up. In the survey result, Vinasoy is among the brands that have the highest number of consumers who used to purchase them but not anymore.

There is an estimation of 90% of East and Southeast Asians who suffer lactose intolerance. Soya dairy has been perfect replicate of cow milk for these people and participants in the survey have shown great interest in another form of soya dairy, which is soya yogurt. This is absolutely the most looking-forward-to product on the entering to Vietnam.

6.3 Is there a demand for lactose-free dairy products in Vietnam?

From the author's point of view, there is a demand for lactose-free dairy products in Vietnam since the awareness regarding the matter is gradually increasing. However, it is still in dispute that the people get the correct information. According to the quantitative research, a high percentage of participants (49%) are still not familiar with the term. But still by nature, in history adults from non-milking areas have had lactose mal-absorption according to Simoon's hypothesis. These regions are the next big thing for the booming of lactose-free market. They have been falling behind the developed world, so they are set for high growth and to be examined closely. "There are few markets where you can win 'a customer for life', and who is willing to pay a big premium for the right product. But this is one of them, and lactose-free dairy presents the industry with a huge opportunity to generate some big sales." said Julian Mellentin, director of New Nutrition Business and author of the Lactose-Free Dairy report. As the case company is a leader in this industry, it is certainly gainful for it to explore the growing lactose-free market in Vietnam.

7 CONCLUSION

The author chose the topic of a validation of a lactose-free dairy market's existence in Vietnam. It has been discussed with the case company in order to obtain a rational approach to the matter. The author has to provide an update of the Vietnam dairy market of the consumer insight and the current main players. Then the empirical study was conducted to support the findings within the theoretical framework.

Due to the explanatory nature of this thesis applied business research and a limited time frame of two months to implement, the author adopts the deductive approach throughout the research. The survey strategy is employed correspondingly with the deductive approach and a questionnaire is the data collection technique. The questionnaire is composed in accordance with the consumer behavior literature regarding brand loyalty, marketing strategies, production packaging and researching for possibilities of new products. As the target of this research is consumers in Vietnam, the author chose Viet-

namese as the language of the survey. There are in total 15 structured questions in the questionnaire, four of which are background questions. In the responses form, the author received answers from 169 respondents.

The main findings are the following discussed details. Vietnamese consumers are "demanding, open-minded, and adventurous" like the Asian in general, they switch various milk brands to change flavors. They usually shop at supermarkets, milk stores, official distributors, groceries stores. These channels should always be made accessible and reachable because many purchasing decision are made, or can be influenced, on the ground of the store itself.

Prices and products' unit size should be reduced to unlock demand among consumer who cannot afford larger proportions. Marketing strategies that most affect purchase decision of Vietnamese consumers is television. The factor of labeling with innovative formulas on milk product is considered the most crucial in purchase decision for Vietnamese consumers for consuming milk is to improve heights and nutrient supplement. As the "western brand oriented" psychology manipulates Vietnamese consumers, they are paying money from their pockets for the foreign brands to buy the feeling of safety since an inexpensive good is regarded as of low-quality to the majority of Vietnamese shoppers.

The key products of Vietnam milk market are powder milk, milk in form of liquid, fermented milk product, condensed milk and soy milk. Leader of powder milk sector is Abbott; Vinamilk dominates the liquid milk, fermented milk product, condensed milk sectors; Vinasoy takes over soya milk sector.

The author concludes that there is a demand for lactose-free dairy products in Vietnam since the matter awareness is increasing with time. On the other hand, there is still dispute regarding the progress because as shown in quantitative research, most respondents are still not familiar with the term. Adults from non-milking area like Vietnam have had lactose mal-absorption in accordance with Simoon's hypothesis. Vietnam can be part of the booming of lactose-free dairy market in Asia.

REFERENCES

- Consumer behaviour a European perspective, 2006, Financial Times, Harlow.
- Asia's next export innovation, 2005, McKinsey, New York.
- Kumar, R. 2005, Research methodology a step-by-step guide for beginners, Sage, London.
- Naisbitt, J. 1997, Megatrends Asia the eight Asian megatrends that are changing the world, Nicholas Brealey, London.
- Saunders, M., Lewis, P. & Thornhill, A. cop. 2009, *Research methods for business students*, 5th ed. edn, Prentice Hall, Harlow.
- Underhill, P. 2003, Why we buy the science of shopping, Texere, London.
- Anh, N.T., Thuc, T.K., Welsh, J.D., 1977. Lactose malabsorption in adult Vietnamese. Am J Clin Nutr 30, 468–469.
- Bloomberg, 2014. Currency Converter Bloomberg [WWW Document]. URL http://www.bloomberg.com/markets/currencies/currency-converter/ (accessed 4.24.14).
- BVSC, 2009. AVS -- Công ty Chứng khoán Âu Việt [WWW Document]. URL http://www.avsc.com.vn/portal/news/detail.do?id=11087 (accessed 3.2.14).
- Do, P., 2013. Trung tâm Nghiên cứu Kinh doanh và Hỗ trợ Doanh nghiệp BSA [WWW Document]. URL http://bsa.org.vn/?p=viewcontent&id=11814&menufid=12 (accessed 3.2.14).
- Hai, D., Nhi, Y., 2013. Sữa chua phân chia lại thị trường sữa? TỜ BÁO CỦA GIỚI DOANH NHÂN DOANHNHANSAIGON.VN [WWW Document]. DNSGOnline. URL http://www.doanhnhansaigon.vn/online/kinh-doanh/chuyen-lam-an/2013/07/1075062/sua-chua-phan-chia-lai-thi-truong-sua/ (accessed 5.14.14).
- Hoa, A., 2011. Sữa đặc có bị khai tử? [WWW Document]. URL http://www.dna.com.vn/vi/tinh-huong-thuong-hieu/s/sua-dac-co-bi-khai-tu/ (accessed 3.2.14).
- Hudson, E., 2010. Probiotics rising dairy consumption and lactose intolerance create opportunity in Asia-Pacific Analyst Insight from Euromonitor International [WWW Document]. Euromonitor International. URL http://blog.euromonitor.com/2010/09/probiotics-rising-dairy-consumption-and-lactose-intolerance-create-opportunity-in-asia-pacific.html (accessed 5.14.14).

- Huong, L., 2011. Một số nhãn sữa "đòi" tăng giá đến 10% Thị trường VnEconomy [WWW Document]. URL http://vneconomy.vn/20111208092435989P0C19/motso-nhan-sua-doi-tang-gia-den-10.htm (accessed 3.2.14).
- Kha, H., 2013. New Zealand chiếm gần 30% giá trị nhập khẩu sữa của Việt Nam | Thị trường | CafeBiz [WWW Document]. URL http://cafebiz.vn/thi-truong/new-zealand-chiem-gan-30-gia-tri-nhap-khau-sua-cua-viet-nam-2013080517232032319ca101.chn (accessed 3.2.14).
- Khanh, N., 2011. Thị trường sữa Việt Nam và những thay đổi tích cực | Tinmoi.vn [WWW Document]. URL http://www.tinmoi.vn/thi-truong-sua-viet-nam-va-nhung-thay-doi-tich-cuc-01643532.html (accessed 3.2.14).
- Lam, T., 2013. Sữa bột ở Việt Nam: Nhìn lên kệ là hiểu | Câu chuyện kinh doanh [WWW Document]. CafeBiz. URL http://cafebiz.vn/cau-chuyen-kinh-doanh/sua-bot-o-viet-nam-nhin-len-ke-la-hieu-20130304105356794ca47.chn (accessed 3.2.14).
- Lan, H., 2009. "Chính người tiêu dùng đẩy giá sữa ngoại lên cao" VnExpress Kinh Doanh [WWW Document]. URL http://kinhdoanh.vnexpress.net/tin-tuc/vi-mo/chinh-nguoi-tieu-dung-day-gia-sua-ngoai-len-cao-2698657.html (accessed 4.23.14).
- Nguyen, H., n.d. Giá sữa tăng: Tại người tiêu dùng Kinh doanh Dân trí [WWW Document]. Petrotimes. URL http://dantri.com.vn/kinh-doanh/gia-sua-tang-tai-nguoitieu-dung-853378.htm (accessed 4.20.14).
- P.Anh, 2013. Sữa nội chỉ đáp ứng được 20% 28% nhu cầu [WWW Document]. nld.com.vn. URL http://nld.com.vn/20130103093013510p0c1014/sua-noi-chi-dap-ung-duoc-20-28-nhu-cau.htm (accessed 3.2.14).
- Phong, M., 2013. TH Milk lõ một nước cờ? [WWW Document]. vneconomy.vn. URL http://doanhnhan.vneconomy.vn/c5n20130530035958323.htm (accessed 3.2.14).
- Prescott, R., 2012. FoodBev.com | News | Lactose-free dairy market is booming, says new report [WWW Document]. FoodBev.com. URL http://www.foodbev.com/news/lactose-free-dairy-market-is-booming-say#.U3LJAYGSyo1 (accessed 5.14.14).
- Trang, H., 2013. Thị trường sữa nhìn từ vụ sữa Fonterra nhiễm khuẩn: Yêu cầu minh bạch về nguồn gốc nguyên liệu Lăng kính [WWW Document]. URL http://thoibaokinhdoanh.vn/441/news-detail/701049/lang-kinh/thi-truong-sua-nhin-tu-vu-sua-fonterra-nhiem-khuan-yeu-cau-minh-bach-ve-nguon-goc-nguyen-lieu.html (accessed 3.2.14).
- Vu, M., 2009. Giá sữa quá cao bất chấp thuế thấp Báo Đất Việt [WWW Document]. URL http://www.baomoi.com/Gia-sua-qua-cao-bat-chap-thue-thap/50/2915591.epi (accessed 4.23.14).

Vu Van, T., 2013. Vinamilk giới thiệu sản phẩm sữa tiệt trùng không Lactoza đầu tiên tại Việt Nam - Doanh nghiệp - Dân trí [WWW Document]. URL http://dantri.com.vn/doanh-nghiep/vinamilk-gioi-thieu-san-pham-sua-tiet-trung-khong-lactoza-dau-tien-tai-viet-nam-807352.htm (accessed 3.2.14).

APPENDICES

Khảo sát thói quen và mức tiêu dùng sữa

	1. Bạn có b	ị dị ứng với Lac	tose không?		
0 0	C C 2. Mục đích		ái niệm dị ứng Lactos i n phẩm sữa của bạ		
	(Vui lòng cho	ọn một hoặc nhiề	u mục)		
0 0 0 0	•	Bổ sung dinh dư Phục vụ cho việ phẩm từ sữa nà	nh độ ăn kiêng của bạn rỡng và tăng chiều c	:hường chọn muaʻ	?
		Rất thường xuyên	Thường xuyên	Thỉnh thoảng	Chưa bao giờ
	Sữa tiệt trùng	0	0	0	0
	Sữa thanh trùng	0	0	0	0
	Sữa tiệt trùng không có Lactose	0	0	O	0

	Rất thường xuyên	Thường xuyên	Thỉnh thoảng	Chưa bao giờ
Sữa bột cho trẻ em	c	0	0	0
Sữa bột cho người lớn (19-50 tuổi)	c	0	C.	0
Sữa bột cho người cao tuổi (51 tuổi trở lên)	c	o	0	0
Sữa chua uống	c	0	c	0
Sữa chua ăn	0	0	0	0
Váng sữa (pudding)	0	0	0	0
Sữa đậu nành	0	0	0	0
Sữa đặc có đường	0	0	0	0
Во	0	0	0	0

	Rất thường xuyên	Thường xuyên	Thỉnh thoảng	Chưa bao giờ
Phô mai	0	0	0	0
Cream làm bánh	0	0	C	0
Cream nấu ăn	0	O	0	0
Nước trái cây sữa	0	0	0	0
Kem	0	0	0	0
4. Mức độ sử dụng các nhãn hiệu sản phẩm sữa của gia đình (Vui lòng để trống những nhãn hiệu bạn không sử dụng)				
(Vui lòng để	trống những nhãn	ı hiệu bạn không sủ	[,] dụng)	
(Vui lòng để	trống những nhãr Sử dụng thường xuyên nhất	n hiệu bạn không sử Thỉnh thỏang sử dụng	Đã từng dùng qua nhưng hiện tại đã dừng	Chưa sử dụng qua
(Vui lòng để Vinamilk	Sử dụng thường xuyên	Thỉnh thỏang	Đã từng dùng qua nhưng hiện	_
	Sử dụng thường xuyên nhất	Thỉnh thỏang sử dụng	Đã từng dùng qua nhưng hiện tại đã dừng	qua
Vinamilk Friesland Campina (Cô gái Hà	Sử dụng thường xuyên nhất	Thỉnh thỏang sử dụng	Đã từng dùng qua nhưng hiện tại đã dừng	qua

	Sử dụng thường xuyên nhất	Thỉnh thỏang sử dụng	Đã từng dùng qua nhưng hiện tại đã dừng	Chưa sử dụng qua
Mead Johnson (Enfagrow)	O	0	0	0
Fonterra Brands (Anlene, Anchor)	c	0	0	0
Dumex	0	0	0	0
Meiji	0	0	0	0
Namyang (XO)	C	0	0	0
NutiFood	0	0	0	0
TH True Milk	0	O	0	0
Hanoimilk	0	0	0	C
IDP (sữa Ba Vì)	0	0	0	0
Mộc Châu	0	0	0	C
Vinasoy	O Vẫn sang dùng nh	0	0	0

5. Lý do chuyển sang dùng nhãn sữa mới

(Vui lòng chọn một hoặc nhiều mục)

0 0 0 0 0 0		Sữa cũ chất Muốn thay đ Dung tích và Sữa mới có Được người Do dị ứng La	đóng gói sữa m giá cả hợp lý hơ thân, bạn bè gio actose	io đảm nới phù hợp với rn ới thiệu	i mục đích sử dụ chí sau đây khi	
		Rất quan trọng	Quan trọng	Ở mức độ nào đó có quan trọng	Không quan trọng	Rất không quan trọng
	Trên bao bì sữa có nêu nhiều nguyên liệu giúp trẻ phát triển thể chất, trí tuệ	C	C	C	0	0
	Có nhiều vị sữa bạn và gia đình thích	0	0	0	0	0
	Công ty nổi tiếng chuyên về dinh	0	0	O	0	0

	Rất quan trọng	Quan trọng	Ở mức độ nào đó có quan trọng	Không quan trọng	Rất không quan trọng
dưỡng					
Sữa nhập từ nước ngoài	0	0	0	0	0
Người thân bạn bè khuyên dùng	O	0	0	0	0
Giới thiệu từ người bán hàng	0	o	0	0	c
Giá cả	0	0	0	0	0
Sản phẩm có khuyến mãi	0	0	0	0	c
Bao bì bắt mắt	O	0	0	0	0
Dung tích phù hợp với mục	0	О	0	0	0

	Rất quan trọng	Quan trọng	Ở mức độ nào đó có quan trọng	Không quan trọng	Rất không quan trọng
đích sử					
dụng					
Sản					
phẩm					
sữa	0	0	0	0	0
không có Lac-					
tose					
_		quan trọng của sản phẩm sữa c	_		nào sau đây
	,			•	
	Rất quan trọng	Quan trọng	Ở mức độ nào đó có quan trọng	Không quan trọng	Rất không quan trọng
Truyền hình	0	0	0	0	0
Phát thanh	0	0	0	0	0
Báo chí, tạp chí	0	0	0	0	0
Quảng cáo trên các	_	_	_	_	_
phương tiện vận chuyển	0	0	0	0	0

		Rất quan trọng	Quan trọng	Ở mức độ nào đó có quan trọng	Không quan trọng	Rất không quan trọng
	(vd: xe buýt)					
	Quảng cáo ngoài trời (poster, áp phích, panô, băng-rôn, đèn led ở những nơi công cộng)	C	O	0	0	C
	Facebook và social media	c	o	0	0	0
	Website công ty	0	0	0	0	О
	Email từ công ty	0	0	0	0	0
		ia đình bạn t	hường chi cho	một lần mua s	ữа	
0 0 0 0 0	0 0 0 0 0	Dưới 100.00 100.000 - 20 200.000 - 30 300.000 - 50 500.000 - 70	00.000 00.000 00.00 00.000			

0	0	Trên 1.000.000
	9. Thời gian	sử dụng cho một lần mua sữa
0	0	1 ngày
0	0	2 - 3 ngày
0	0	4 - 5 ngày
0	0	6 - 7 ngày
0	0	2 tuần
0	0	3 tuần
0	0	Trên 1 tháng
		ờng mua sữa ở đâu?
0		Siêu thị
0		Cửa hàng tạp hóa
0		Cửa hàng chuyên về sữa
0		Cửa hàng tiện lợi
0		Cửa hàng hoặc đại lý chính hãng
0		Chợ
0		Mua online
		rng loại sản phẩm mới này được đưa vào thị trường sữa Việt Nam, g thử những sản phẩm nào?
0		Sữa chua làm từ đậu nành
0		Sữa cho trẻ sơ sinh (cho trẻ vừa chào đời hoặc 6 tháng tuổi)
0		Quark (phô mai sữa đông)
0		Curd milk (sữa đông)
0		Buttermilk
0		Thức uống protein
0		Các loại cheese (phô mai) và creamcheese không chứa lactose
0		Các loại bơ không chứa lactose
0		Các loại sữa chua không chứa lactose
0		Các sản phẩm cream tạo mùi dùng trong nấu ăn không chứa lactose
0		Các sản phẩm cream, heavy cream dùng trong làm bánh không chứa lac-
	tose	Other
0		Other:
	12. Giới tính	Nam

0	0	Nữ				
	13. Bạn đang ở thành phố nào?					
	0					
0	0	Thành phố Hồ Chí Minh				
0	0	Hà Nội				
0	V	Other:				
	14. Thu nhậ	p hàng tháng của gia đình bạn?				
0	0	Dưới 5 triệu				
0	0	5 - 7 triệu				
0	0	7 - 10 triệu				
0	0	10 - 15 triệu				
0	0	15 - 30 triệu				
0	0	30 - 50 triệu				
0	0	50 - 70 triệu				
0	0	70 - 100 triệu				
0	0	Trên 100 triệu				
	15. Gia đình	bạn có bao nhiêu trẻ em? ▼				