

KARELIA UNIVERSITY OF APPLIED SCIENCES
International Business Degree Programme

Danyil Yankevych 1401364

STRATEGIC MARKET RESEARCH OF CHINA'S DAIRY MARKET
CASE STUDY: VOLOSHKOVE POLE

Thesis
May 2019



THESIS
May 2019
Degree Programme in International Business

Karjalankatu 3
FIN 80200 JOENSUU
FINLAND
Tel. 358-013-260-600

Author

Yankevych Danyil

Title

STRATEGIC MARKET RESEARCH OF CHINA'S DAIRY MARKET
CASE STUDY: VOLOSHKOVE POLE

Commissioned by Karelia UAS

Abstract

This thesis provides a strategic market research of the Chinese dairy market for Voloshkove Pole Co. The company is aiming at international expansion in China. This study is based on an analysis of the Chinese business environment and dairy market as well as an examination of the buying behavior of Chinese customers regarding dairy products.

The Chinese business environment is analyzed via an application of PEST analysis, which helps to gauge the business climate in terms of political, economic, socio-cultural and technological factors. The results of the PEST analysis can be used by the case company in order to identify potential opportunities and threats in the context of a market entry strategy.

The Chinese dairy market is analyzed in the course of identification of dairy products that show potential for growth and increasing demand. The BCG model was applied to identify the dairy products that meet the case company's requirements.

A questionnaire was designed and conducted by the author in order to analyze and understand the buying behavior of Chinese customers regarding dairy products. It examines their preferences, habits and tastes, and as a result it provides relevant information for creating a user persona profile, segmentation and targeting as well as a marketing mix.

Language

English

Pages 36

Appendices 4

Pages of Appendices 6

Keywords

Strategic research, China dairy market, international expansion, buying behavior

CONTENTS

1	INTRODUCTION.....	5
1.1	Background.....	5
1.2	Company profile.....	5
1.3	The aim of the study.....	6
1.4	Limitations of the study.....	7
1.5	Theoretical framework and methodology.....	8
1.6	Outline of the report.....	8
2	BUSINESS ENVIRONMENT IN CHINA.....	9
2.1	PEST analysis.....	9
2.1.1	Political factors.....	10
2.1.2	Economic factors.....	12
2.1.3	Socio-cultural factors.....	14
2.1.4	Technological factors.....	18
2.2	PEST Summary.....	19
3	DAIRY MARKET ANALYSIS.....	20
3.1	Market overview.....	20
3.2	Trends and Opportunities.....	22
3.2.1	Cheese.....	25
3.2.2	Yoghurt products.....	28
3.2.3	Infant formula.....	30
3.3	Challenges.....	33
4	CONSUMER BUYING BEHAVIOR.....	33
4.1	Buying behavior and preferences.....	34
4.2	Distribution channels and marketing.....	35
5	CONCLUSIONS.....	36
6	RECOMMENDATIONS.....	37
	REFERENCES.....	39

APPENDICIES

Appendix 1 Questionnaire

Appendix 2 China's most favored nation(MFN) tariffs for commodities of interest

Appendix 3 National Standard on Infant Formula

Appendix 4 National Standard on Cheese

1 INTRODUCTION

1.1 Background

A series of food-safety issues and incidents happened in China for last 20 years have induced gradual and long-standing distrust of customers to domestic brands. Specifically, milk scandal in 2008 has carried a devastating blow and significantly shattered consumers' confidence. Milk powder and infant formula of more than 20 domestic dairy companies were found to be contaminated with toxic industrial compound called melamine. (BBC, 2010) As a result, 300,000 babies were sick, sixteen infants were diagnosed with kidney stones, and the kidney damage led to six fatalities. (Forbes, 2014)

The abovementioned consequences triggered a wave of foreign dairy producers to open up in China. Currently, Chinese customers still prefer foreign brands of milk powder over domestic ones, which means that there is still high demand for it. Between 2016 and 2021, China's dairy and milk formula markets are expected to grow by 10 and 25 percent, respectively (United States Department of Agriculture 2017)

1.2 Company profile

Voloshkove Pole (Company) is one of the major Ukrainian dairy companies with more than 10 years of operations in the local market and increasing international expansion. The company has a solid domestic presence with around 20 per cent of the market share as well as an international presence in 15 countries, including the USA and several African and Middle East countries. Currently, the company is considering international expansion into the Asian market of dairy products. (Nalobodyan 2019.)

Voloshkove Pole has a wide range of product selection for exports, including hard and processed cheeses, cheese products, butter, powdered mixtures, sweetened condensed milk, shock-frozen dairy products, etc. The abovementioned products are

exported by the name of the three international brands developed by the company such as: Happy Motley Cows, Country House, Creamy Paradise. They are designed by the company for international markets and they reflect a different marketing mix designed to meet foreign market specifications. (Voloshkove Pole 2019.)

The company applies a customer-oriented approach in its operations, consistently investing in R&D as well as monitoring domestic and international markets via conducting market research, arranging focus groups, etc. This enables the company to keep abreast with the market demand and reshape its production, product selection and marketing mix towards market changes. (Nalobodyan 2019.)

The company has applied up-to-date production technologies in order to guarantee the highest quality and safety of dairy products in the market. The company has passed a series of food safety tests and complies with quality system regulations (ISO 9001:2008; ISO 22000:2005; HACCP Certificate; HALAL; Kosher). (Voloshkove Pole 2019.)

1.3 The aim of the study

The following study is conducted for Voloshkove Pole Co., which is planning to enter the Chinese market of dairy products. The ultimate purpose of this research is an evaluation of the potential for international expansion as well as a concise analysis of the business environment in the Chinese market of dairy products. It includes opportunities and challenges related to the subject of the research as well as a provision of the relevant outcomes for further decision-making.

During the interview the author of the research and the company's representatives have combined the abovementioned targets into a set of research questions and objectives such as:

- 1) How attractive is the business environment in China's market of dairy products for the case company?
 - Analyze the business environment in China

- Analyze the macro- and micro environment factors affecting the dairy market in China
 - Evaluate the market size and growth rate
 - Define the main competitors and their market share
- 2) What are the market trends in terms of dairy product consumption in China?
- Analyze dairy products in terms of market share and consumption
 - Locate what type of dairy products are trendy now and in the near future
 - Evaluate potential opportunities for export
- 3) What is the buying behavior of Chinese consumers in terms of dairy products?
- Analyze the decision-making process of Chinese consumers regarding dairy products
 - Access Chinese consumers habits related to the consumption of dairy products
 - Examine the sources of information used before purchasing
 - Define the most effective and common distribution channel
 - Explore the product selection criteria

1.4 Limitations of the study

This thesis includes concise and general overview of the dairy market in China, thus it is recommended to conduct additional research for further deeper analysis of the market and related factors. According to the fact that dairy market in China is complex, author of the thesis and company's representatives decided to address primary focus on analysis of business environment, trends and opportunities in China dairy market as well as buying behavior of Chinese consumers of dairy products. According to the fact that company requires only general overlook of dairy market in China, following thesis does not provide any business plan for market entry.

In addition to that, PEST analysis as well as analysis of dairy market include only relevant information which is related to the thesis. Bearing in mind that this thesis provides information not about specific type of dairy product, questionnaire does not

include questions regarding the brand preferences. It is recommended to conduct several questionnaires aimed at analysis of specific type of dairy product. Other aspects are important but are ignored in this thesis.

1.5 Theoretical framework and methodology

The study is based on usage of both primary and secondary data via application of quantitative and qualitative research methods. Specifically, primary data includes a questionnaire and interviews, and the secondary data consists of desk research of hard data such as statistics.

The questionnaire is aimed at gathering information on the Chinese consumers' buying behavior, preferences, habits, etc. This information can be useful for the case company in developing the marketing to be applied in the Chinese dairy market. According to the fact that the author was unable to conduct a questionnaire survey in China personally, the author has used Chinese social network to distribute the questionnaire.

1.6 Outline of the report

The thesis consists of four parts: the business environment in China, the dairy market in China, consumers' buying behavior of dairy products and conclusions. The business environment in China is overviewed via an application of PEST analysis, which reflects the political, economic, socio-cultural and technological factors.

The analysis of the dairy market examines the market attractiveness in terms of potential trends, opportunities and challenges via an application of the BCG matrix, and research of secondary data. Consumer buying behavior is overviewed by conducting a questionnaire aimed at providing relevant information regarding the habits, preferences, etc. of Chinese consumers of dairy products. The final part stands for a summary of findings and provides possible recommendations.

2 BUSINESS ENVIRONMENT IN CHINA

2.1 PEST analysis

PEST analysis (political, economic, socio-cultural, technological) stands for a framework which is widely applied in strategic management via conducting environmental scanning of factors affecting business climate in specific location. It is useful strategic tool, which provides relevant outcomes for a company by disclosing potential opportunities and challenges to take advantage of.

PEST analysis consists of four main factors:

1. Political

- Government interference in the economy (economic and political freedom)
- Political stability
- Legislation and tax policy
- Trade regulations and tariffs
- Corruption and bureaucracy level

2. Economic

- Type of economic system in the country of operations
- Economic growth
- Inflation rate
- Exchange rates
- Interest rates
- Unemployment rate
- Stage of economic cycle(expansion, recession, recovery)

3. Socio-cultural

- Population growth rate
- Age distribution
- Culture differences and particularities

- Behavior patterns and attitudes
4. Technological
- R&D activity
 - Rate of technological change

2.1.1 Political factors

People's Republic of China is governed by Chinese Communist Party (CCP), with central government in Beijing executing jurisdiction over 22 provinces, five autonomous regions, four direct-controlled municipalities and the special administrative regions of Hong Kong and Macau. The machinery of the Chinese government reflects sophisticated hierarchical pyramid with poor accountability causing bureaucracy and administrative complexities among all levels (Santander, 2019).

Another risk to be considered before starting operations in China stands for complex and ever-changing legal as well as political environment. Specifically, Chinese central, provincial and local governments reflect ambiguous and opaque observance over applicable law. (China Risk Management, 2019).

According to PwC (PwC 2019), following are major tax policies which are only relevant to the thesis study:

- Corporate Income Tax - standard tax rate is 25%
- VAT - The standard tax rate is 17% with certain necessities taxed at 13%.
- Customs duties - duties are imposed on goods imported into China and are generally assessed on the CIF (cost, insurance and freight) value. The rate of duty depends on the nature and country of origin of the imported goods.
- Tariffs on dairy products are depicted in Table 1 (Appendix 2)

According to Index of Political Freedom, China was ranked 11th out of 100 countries in 2019, being largely politically unfree. It can be explained by the increased central government interference into the economy and tightening the control over the civil sector. (Political Freedom Index, 2019)

Another issue to be considered is high level of corruption and lack of transparency in government, administrative institutions and in corporate sector. Specifically, according to Corruption Percentage Index, China was ranked 87th out of 180 countries in 2018 and scored 39 points out of 100(0-highly corrupt, 100-very clean) (Corruption Percentage Index, 2018).

On another hand, according to World Bank's Ease of Doing Business Index, in 2018 China was ranked 46th out of 190 countries, up from 78th in 2017, in turn reflecting substantial progress in terms of business climate improvements. The Ease of Doing Business Index ranks countries against each other based on how the regulatory environment is conducive to business operations stronger protections of property rights (World Bank 2019).

In 2019 China was ranked 100th out of 170 countries in contrast to 110th in 2018 in reference to Economic Freedom Index.(Economic Freedom Index 2019) According to Investopedia, the Index of Economic Freedom scores countries based on twelve factors: property rights, judicial effectiveness, government integrity, tax burden, government spending, fiscal health, business freedom, labor freedom, monetary freedom, trade freedom, investment freedom and financial freedom. These are compiled into a single score, according to which countries are ranked from most (highest score) to least free (Investopedia 2017). Albeit the fact that China has made substantial improvements in its business climate by implementing various political and economic reforms, nowadays China remains "mostly unfree" in relation to economic freedom.

Also, the trade war with the US brings negative sentiments regarding political and economic stability. On one hand, amid trade disputes, during 2018-2019 the Chinese Government announced three rounds of import tariff cuts. Specifically, China has announced import tariffs cuts of 1,449 categories of goods in May and cuts on a further 1,585 items in September. In addition to that, in January of 2019 the Chinese Government announced tariffs cuts/removal for imports on an additional 706 types of products in order to mitigate the trade war implications and provide a sound and attractive business environment. (China Briefing 2019.)

Overall, China's political environment is mixed amid a trade war with the US which affects China's business climate by increasing political instability. China's economic and political reforms make the business environment sounder and more attractive for

foreign companies to open up in China. According to Ease of Doing Business Index, doing business in China is getting easier. However, there is still a range of political risks that need to be considered by the case company. Specifically, it is important to take into account the complex tax and legislation policies, the lack of transparency and corruption, the high level of bureaucracy as well as the low level of economic and political freedom.

2.1.2 Economic factors

The spectacular economic growth of China over the past three decades has propelled China into the one of the key players in the global arena. Specifically, China has shifted from a centrally planned economy to a market based economy and has become the world's second largest economy by nominal GDP and the world's largest by the PPP (World Bank 2019).

The breakneck growth was fueled by a set of driving forces such as:

- Economic liberalization
- Massive government spending into various infrastructure projects
- Continuous FDI

However, during the last ten years the Chinese economy has shifted from a rapid expansion stage to a gradual slowdown. In 2019, China's official growth rate accounted for 6.6 percent, reflecting the lowest growth rate since the global financial crisis and the slowest pace since 1990 (Figure 1) (CNBC 2019). The inflation rate is generally stable, ranging between 0.5 and 3 per cent over last 5 years.

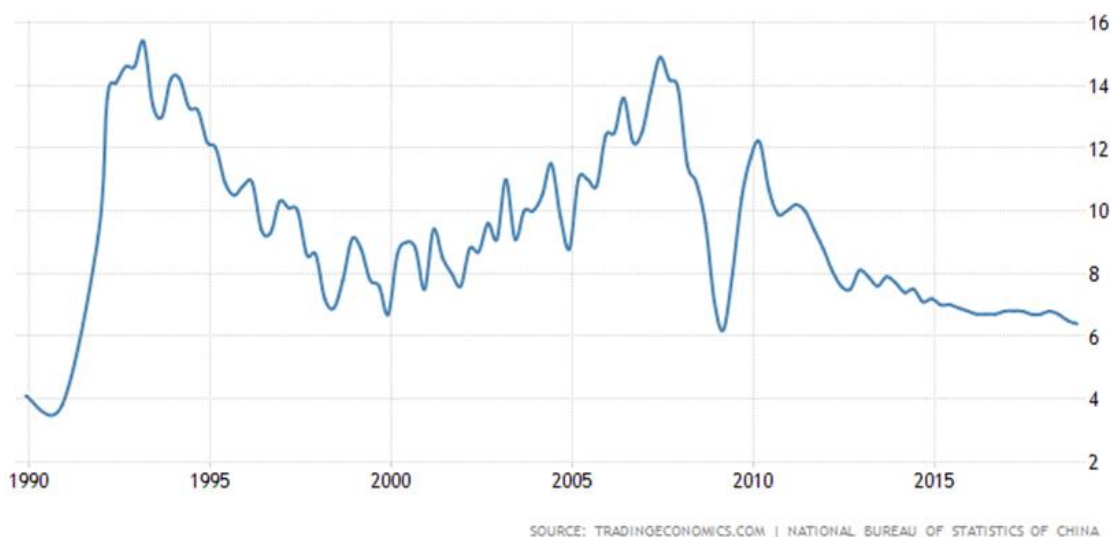


Figure 1. China GDP Annual Growth Rate from 1990 to 2019 (National Bureau of Statistics of China).

Notably, the investment-led economy in terms of continuous government spending into various infrastructure projects turned out into accumulated public debt. According to official data, as of March 2019, it accounts approximately for US\$ 5.3 trillion, equivalent to about 48.5% of GDP. In addition to that, China's local governments accumulated US\$ 5.8 trillion (53.1% of GDP) in off-balance sheet debt by shadow banking via Local Government Financing Platforms. (China Debt Clock 2019.) Except government debt and off-balance sheet debt, in 2018 Chinese private debt accumulated by individuals and private businesses accounted for 51.50 percent of GDP (National Bureau of Statistics of China 2018). Overall, based on official data, China's debt accounts for 153.1% of GDP, including public debt, private debt and off-balance sheet debt. Despite the official data, it is estimated that real China's debt to GDP ratio is up to 300% (Forbes 2018). Referring to the World Bank (2010) study: "the estimations establish a threshold of 77 percent public debt-to-GDP ratio. If debt is above this threshold, each additional percentage point of debt costs 0.017 percentage points of annual real growth. The effect is even more pronounced in emerging markets where the threshold is 64 percent debt-to-GDP ratio. In these countries, the loss in annual real growth with each additional percentage point in public debt amounts to 0.02 percentage points. The cumulative effect on real GDP could be substantial."

In addition to that, trade war with US and its implications undoubtedly lead to additional financial woes and continuous increasing of the debt which in turns even more slowing the economy. The slowdown of the economy causes weakening in demand and lowering of consumption. In turn, this affects the stability of domestic currency and increasing exchange rate risks for international companies operating in China.

There are fluctuations in exchange rates between UAH and CNY since 2014. However, exchange risks are quite still low, and the currency exchange rate works beneficially for the case company since there is solid gap between PPP in terms of the Ukraine and China. According to Big Mac Index, China accounts for 3.05 points and the Ukraine accounts for 1.94 points. (Statista) Moreover, the average monthly net salary in China and Ukraine are US\$ 913(6,171.04 ¥) and US\$ 294(8,059.99 ₴), respectively. (Numbeo 2019.)

Overall, China's economic performance and outlook reflects uncertainty, economic instability and negative sentiments regarding fiscal health. Specifically, debt burden and weakening demand as well as implications of trade war are primary economic issues that need to be considered by the case company as potential risks.

2.1.3 Socio-cultural factors

China has the largest population in the world, accounting for approximately 1.4 billion people (almost 20% of world's total population) in 2019. However, according to Figure 5, the population growth rate has been gradually decreasing since 1990, reaching 0.56% in 2017 (World Bank 2018).

Amid the economic and political issues, China is facing a demographics problem, such as its rapidly ageing society. According to the South China Morning Post, a quarter of the population is expected to be aged over 60 by 2030. Despite the government efforts to stimulate birth rate by removing the one-child policy, some 17.58 million babies were born in mainland China last year, compared to the 241 million people aged over 60. (South China Morning Post 2018.)

Another major demographic concern in China is the provision of an acceptable quality of life and decent living standards for such a large population. China's rapid

investment-driven economic growth has gradually lifted disposable income per capita since 1990. In 2018, it reached an all-time high and accounted for US\$ 5847.81 (39,251 CNY). Correspondingly, consumer spending has been also gradually increasing since 1990 (National Bureau of Statistics of China 2018).

Despite the constant and gradual expansion of disposable income, accelerated economic boost has also caused accompanying downsides, such as income inequality. Income inequality measured by the Gini Index has been gradually decreasing within last ten years; however, the score remains quite high. In addition to income inequity, increasing urbanization in China has led to income distribution gaps by regions. Specifically, most of the wealth is concentrated on the eastern coast, in provinces such as Guangdong, Fujian, Zhejiang, Shandong, Liaoning and including major cities (Beijing, Shanghai, Tianjin, Chongqing, Jiangsu) (Washington Post 2015).

In contrast to unequal income distribution between urban zones and countryside, China has made stunning progress in terms of poverty rate reduction, which has fallen among the rural population from 97.5 percent in 1978 to 3.1 per cent at the end of 2017 (China Daily 2018). Referring to World Poverty Clock, less than 3 per cent of China's population were living in extreme poverty in 2019 (World Poverty Clock 2019).

According to the fact, that the Ukraine and China reflect different cultural backgrounds, it is crucial for the case company to examine and understand these cultural differences for effective cross-cultural management. Thus, Figure 2 illustrates the comparison of cultural behavior patterns between China and Ukraine via applying Hofstede cultural dimension theory.

First, China and Ukraine share almost the same attitude in terms of Power Distance, characterized by the public acceptance of power inequalities. The subordinate-superior relationship tends to be polarized and there is no defense against power abuse by superiors (Hofstede Insights 2019).

Secondly, in terms of Individualism, both countries reflect collectivist societies, where people are eager to act in the interests of the group and not necessarily of themselves. Moreover, personal relationships prevail over task and company. Relationships with colleagues are cooperative for in-groups, but they are cold or even hostile to out-groups.

Third, turning to Masculinity, the fundamental issue addressed by this dimension is what motivates people. Masculine type stands for society driven by sense of competition and achievement, where success is defined as being the best in the specific area or field. Feminine type reflects a society where primary values stand for caring for others and success is defined by the quality of life. According to the Figure 2, the scores of China are more than twice bigger as those of Ukraine, indicating that China is more masculine with success-oriented society. In contrast, Ukraine has scored 27 points, in turn reflecting feminine society characterized by modest attitudes and standard of living.

Fourth, as to the Uncertainty Avoidance, China and Ukraine are polarized in terms of the attitude to uncertainty. Specifically, risk-averse mindset prevails in Chinese society, while Ukrainian people prefer to minimize any possible risks and ambiguous situations. In fact, Chinese people reflect adaptable behavior, while Ukraine is more conservative with high importance of detailed planning and briefing.

Fifth, Long Term Orientation stands for a dimension reflecting the attitude of the society towards societal changes. Society with a low score is called normative and reflect stronger devotion towards time-honored traditions. Society with high score reflects more pragmatic culture with eager for continuous change with bold innovations. As to the Figure 2 China has scored 87, undoubtedly reflecting pragmatic culture, while the Ukraine has scored 55, meaning no clear preference on this dimension.

Lastly, Indulgence stands for a dimension reflecting the extent to which people can exercise control over their desires and impulses. Societies are divided into Indulgent and Restrained based on the level of the control. Indulgent society leisure is characterized by leisure ethic, more optimistic views with less moral disciplines. Restrained society is opposite to the Indulgent and characterized by prevailing work ethic, pessimistic views and strict moral discipline. Both countries reflect Restrained societies, characterized by a tendency towards cynicism and pessimism.

In addition to that, language is another social factor that needs to be considered at first. The company needs to hire an interpreter (or Chinese/Russian speaking person) to

provide effective communication issues with potential partners, customers, and other organizational activities.

Overall, according to abovementioned factors, currently China is dealing with several social issues, which affects business environment. Factors such as population growth rate slowdown combined with ageing population might drastically lower the demand and consumption, in turn decreasing potential revenue. Turning to cultural dimensions, China and the Ukraine largely reflect similar attitudes and behaviors; however, there are some divergences. Specifically, the case company needs to take into account that China reflects a masculine society, characterized by risk-averse attitude and eager for bold innovations and ongoing changes. It is important for the case company to meticulously examine and conceive those cultural differences as well as imbed them in its cross-cultural management practices. Moreover, the case company needs to take into account the language barrier in order to prevent any possible risks related to misunderstanding.

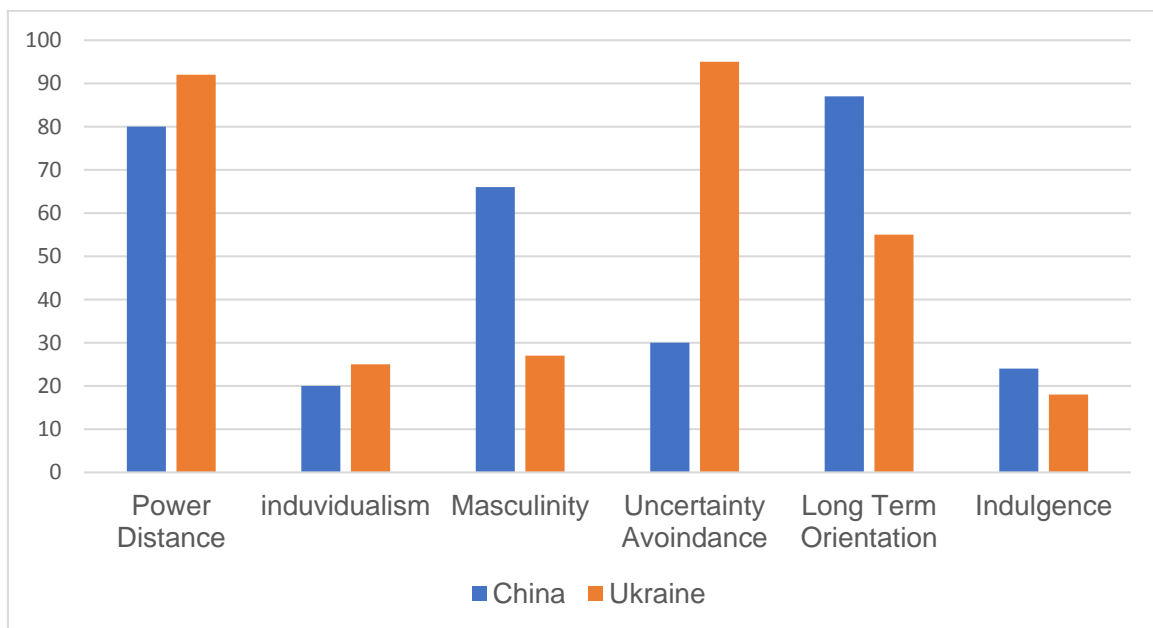


Figure 2. Comparison of China and Ukraine in terms of Hofstede six-dimension theory (Hofstede Insights, 2019)

2.1.4 Technological factors

As of 2018, China has the world's largest number of the internet users accounting for 802 million of people and continually increasing (Statista, 2018). In fact, such a large population of online users has ramped up the e-commerce market in China. The number of online shoppers in China has been increasing exponentially, from below 34 million in 2006 to over 361 million users in 2014. In 2017 it accounted for 533 million people. (Statista 2019.)

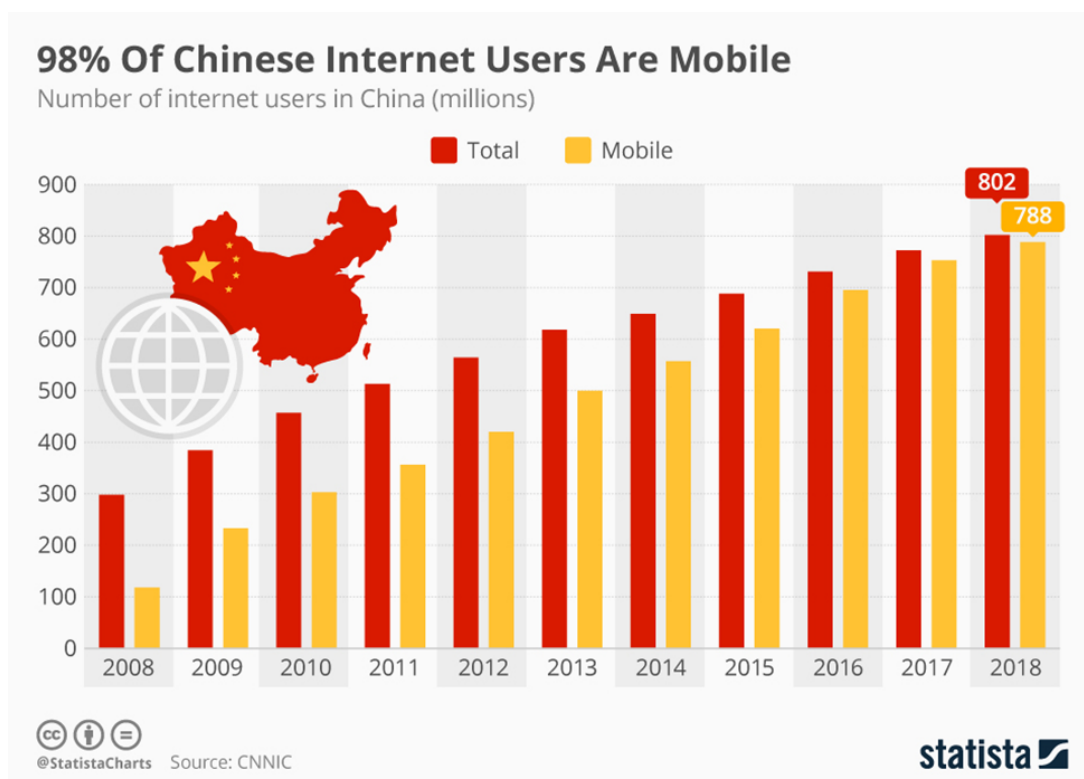


Figure 3. Number of internet users in China(millions)(Statista, 2018)

The main players in the China's e-commerce market are Alibaba.com, with 58.2% of the market share, JD.com and Pinduoduo with 16.3% and 5.2% respectively (Statista 2019). In addition to that, PwC's survey indicates that while 62% of Chinese consumers (29% globally) prefer to research grocery products online, the same proportion of survey respondents (62% Chinese vs 22% global) would also prefer to buy their groceries online.

Overall, China keeps abreast with technological development characterized by the profound tendency towards bold innovations and fresh insights. An e-commerce boom has created flourishing opportunities for various local and foreign companies.

2.2 PEST Summary

A conducted PEST analysis revealed that China's business environment is mixed, but negative sentiments prevail. Specifically, the trade war with the US has resulted in political instability as well as adding more economic uncertainty, not to mention financial woes. In contrast, according to various indices, the level of political and economic freedom is rising, and doing business in China is getting easier. However, there are still a lot of concerns left unsolved. Specifically, high level of bureaucracy, corruption and blurred tax and legislation policy are primary political issues to be considered by the case company. In addition to the political issues, China is undergoing economic slowdown amid an overlarge debt burden accumulated by the Chinese government via shadow banking. Despite the economic issues, disposable income and consumer spending reflect gradual growth. However, China is faced with demographic issues such as an ageing society, which in the long-run may result in weakening demand and consumption.

As for the cultural factors, according to Hofstede's framework, China and the Ukraine largely share the same values and attitudes. However, Chinese people reflect more success-oriented and risk-averse attitude as well as more adaptive behavior to changes. Turning to technological factors, China keeps abreast with technological development, and has the largest number of internet users in the world. Moreover, e-commerce in China has witnessed a profound tendency for gradual growth. It is recommended to take an advantage of this.

3 DAIRY MARKET ANALYSIS

3.1 Market overview

China has witnessed profound growth in the consumption of dairy products since the beginning of 1990s (Table 2). As for 2019, the average per capita consumption stands at 19.7 kg (Statista 2019). In fact, China is on the way to becoming the most dynamic sector in the global dairy market. According to United Nations' Food and Agriculture Organization and DBS Group Research, the rapid growth in the consumption of dairy products is prompted by "rising incomes, population growth, urbanization and changes in diets towards Western-leaning" (DBS 2017).

Table 1. Rural and urban consumption of milk products in China(kg/household/year), 1990-2015(National Bureau of Statistics in China, 2017)

Rural and urban consumption of milk products in China (kg/household/year), 1990-2015					
	1990	2000	2005	2010	2015
Rural consumption of milk and processed products	1.10	1.06	2.86	3.55	6.30
Urban consumption of milk	4.63	9.94	17.92	13.98	17.1

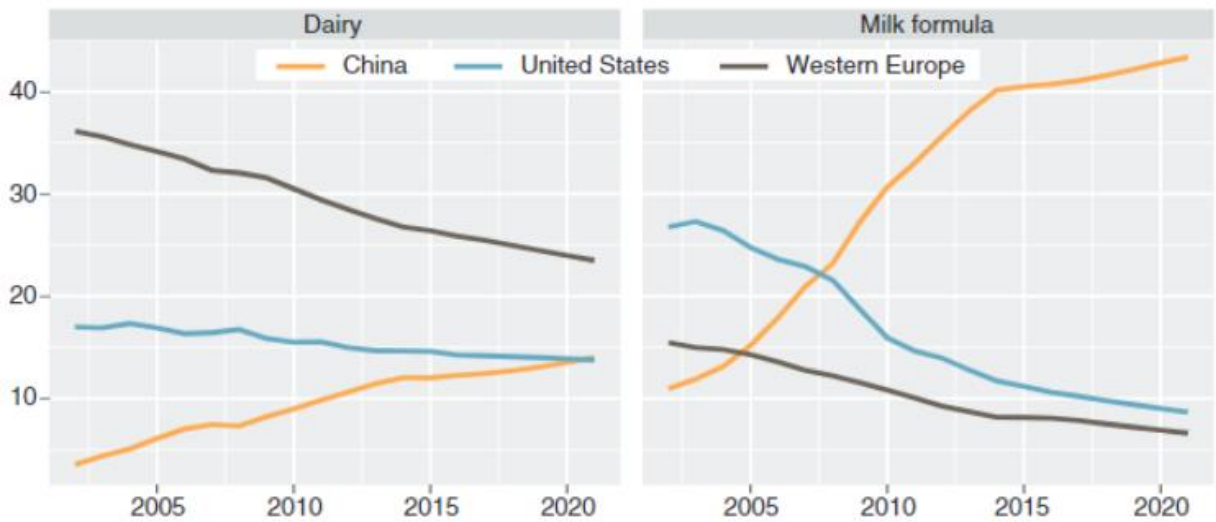
kg = kilogram

Source: National Bureau of Statistics of China (NBS), 2017.

According to the Figure 4 in 2016, China's dairy market was the world's third largest, and its milk formula market was the largest with profound growth projections. Specifically, it is estimated that between 2016 and 2021 China's dairy and milk formula markets will grow by 10 and 25 percent, respectively (United States Department of Agriculture 2017). From another source, the dairy market is expected to grow annually by 4.7% (CAGR 2019-2023) (Statista 2019).

Dairy and milk formula markets as a percent of the world market

Percent



Note: Dairy products include butter and margarine, cheese, drinking milk products, yogurt and sour milk products, and other dairy. Market sizes are quantified in retail value using fixed 2016 exchange rates in constant 2016 prices. Projections were constructed by Euromonitor (2016).

Source: USDA Economic Research Service calculations based on data from Euromonitor (2016).

Figure 4. Dairy and milk formula markets as a percentage of the world market.(USDA, 2016)

Amid the implications of the melamine scandal such as an unrest and distrust in domestic producers, the demand for dairy products has exceeded the domestic supply. Thus, China has become the largest importer of milk products in the world. It is expected that the demand for dairy products in China will likely continue to exceed domestic supply, and a quarter of the 2024 dairy market is expected to be satisfied by imported products (United States Department of Agriculture 2017).

According to Table 3, in 2016 the EU stands out as the largest exporter of dairy products with 48.7% of market share. New Zealand is catching up to the EU by accounting for 33.3 per cent. Australia and US lag with 6.9% and 6.2% respectively.

Table 3. Value of daily product exports for China's major dairy suppliers, 2014-2016 (Source: USDA 2017).

Value of daily product exports for China's major dairy suppliers, 2014-16

	Value 2016 (USD bn)	Market share 2016 (%)	Value 2015 (USD bn)	Market share 2015 (%)	Value 2014 (USD bn)	Market share 2014 (%)
World	6.669		5.965		8.334	
European Union	3.25	48.7	2.73	45.8	2.32	27.9
New Zealand	2.22	33.3	1.96	32.8	4.33	52.0
Australia	0.46	6.9	0.42	7.1	0.39	4.7
United States	0.41	6.2	0.47	7.9	0.75	9.0

Note: USD bn = (US) \$1 billion; dairy products (with Harmonized System codes) include nonconcentrate milk (0401), concentrate milk (040210, 040221, 040229, 040291, 040299), yogurt (0403, 040310, 040390), butter (0405), cheese (0406), and infant formula (190110).

Source: Global Trade Information Services (GTIS), 2017; USDA, Economic Research Service calculations of value.

Considering all of the mentioned information and statistics, the Chinese dairy market reflects flourishing opportunities in terms of potential growth. Continually increasing consumption of dairy products as well as the gap between demand and domestic supply provide room for the case company to roll out a campaign.

3.2 Trends and Opportunities

Even though the consumption of dairy products is rising, it is important to understand the market of dairy products is diverse with ever-changing demand and trends. According to the marketing concept of product life cycles, there are four stages that reflect the development of any product, such as:

- Introduction – launching the product to the market
- Growth – sales are rapidly increasing
- Maturity – the sales are reaching their high with continually slowing growth rate
- Decline – sales begin to fall.

According to the Figure 5, the market share of yoghurt products has been gradually increasing since 2011. During the period of 2011-2016 the market share of yoghurt products rose by 18.4% CAGR, while during 2016-2021 it is projected to be 14.1%. Specifically, they will occupy a quarter of total market share in the course of bold projections in 2021. Thus, yoghurt products experience growth stage, in turn creating outstanding opportunities for business development in this niche.

In addition to the growth of yoghurt products, the market share of cheese has been steadily increasing since 2011. This accounts for a small amount, yet it could be a potential trend in an early stage. In fact, during 2011 until 2016 cheese accounted for 20.8% of CAGR, and according to forecasts it will be 15.6% during 2016-2021.

The market share of milk formula has witnessed steady growth from 2011 until 2016 with 12.1% CAGR; however since 2016 it has kept largely unchanged, comprising around 20% of the market share with 6% CAGR in 2016-2021. Milk formula is in its maturity stage, meaning that this product is not going to witness rapid growth. The major trend is gone. In addition to that, market share of milk and milk alternatives has kept unchanged or witnessed steady decline.

While the market shares of yoghurt products and cheese is rising, the market share of flavored milk drinks has been dramatically decreasing, with -0.9% CAGR during 2011-2016 and -11.7% CAGR during 2016-2021, in turn reflecting a decline stage. In

addition to that, the market share of ice creams and frozen desserts is steadily decreasing as well.



Figure 5. China dairy – market share breakdown and segmental CAGR in China 2011-2021F (DBS Research, 2017).

Having analyzed the market of dairy products regarding market share and growth rate of major product types, a BCG matrix was applied to illustrate the findings. The BCG matrix stands for a framework that is used to identify the growth opportunities of products by evaluating their market share and speed of market growth. The BCG model is one of the concepts of strategic management that is widely used to help companies in their decision-making process regarding the development of product portfolio. Specifically, it identifies which products a firm should invest in and which ones should be divested.

BCG matrix consists of four categories which are defined by different levels of market share and market growth rates such as:

- Question marks – low market share, high market growth
- Stars – high market share, high market growth
- Dogs – low market share, low market growth
- Cash cows – high market share, low market growth.



Figure 6. BCG matrix of dairy products in China

Overall, according to desk research and BCG matrix, yoghurt products and cheese are trendy and might witness the strongest demand. As to the other types of products, they show no signals of growth opportunities.

3.2.1 Cheese

According to the BCG model, cheese reflects question marks, characterized by low market share and high market growth. In fact, Figure 7 illustrates that China's cheese

market is on the rise, since the demand for cheese has been gradually increasing since 2009.

The demand is outpacing domestic supply by more than two times, meaning that cheese consumption in China is heavily dependent on imported cheese. The attractiveness of the Chinese cheese market as a large consumer of cheese is enforced by the lack of Chinese cheese producers, enabling international companies to shape the market (Daxue Consulting 2019).

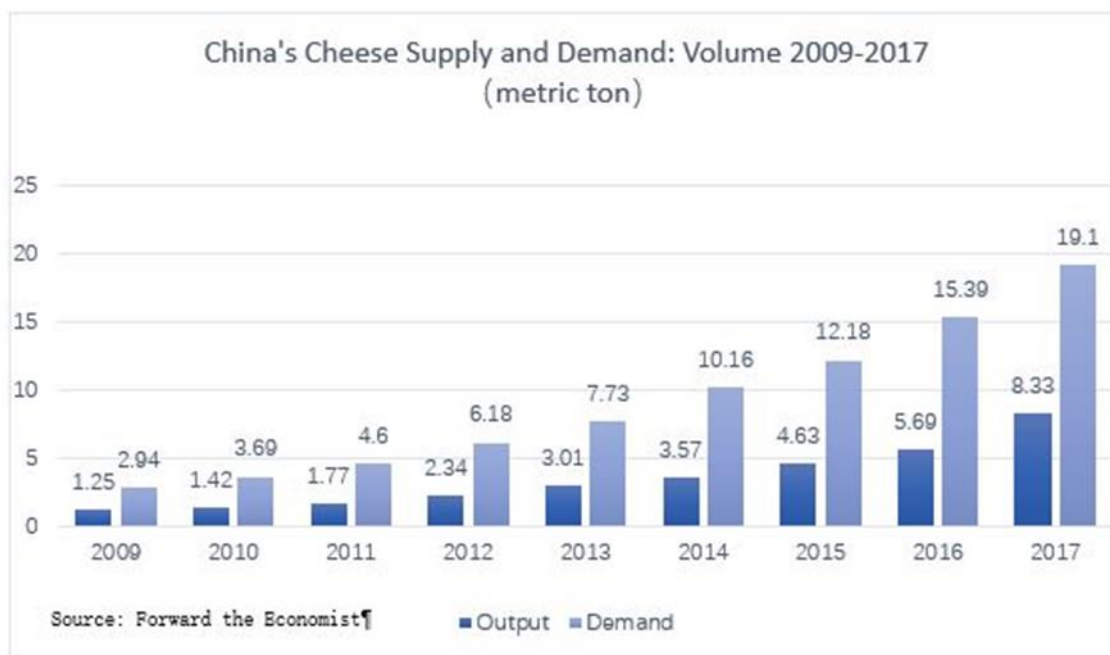


Figure 7. China's cheese supply and demand: volume 2009 – 2017(metric ton) (Daxue Consulting, 2019).

The consumption of processed cheeses prevails, since they fit better the local palate. (Daxue Consulting 2019). Most of the cheese consumption take place in tier 1 cities, due to increasing urbanization and Western-leaning tendency. The children's cheese market dominates 55% of the retail cheese market and sees growth in the near future. According to Euromonitor, cheese was added into school meals in Shanghai (Daxue Consulting 2019).

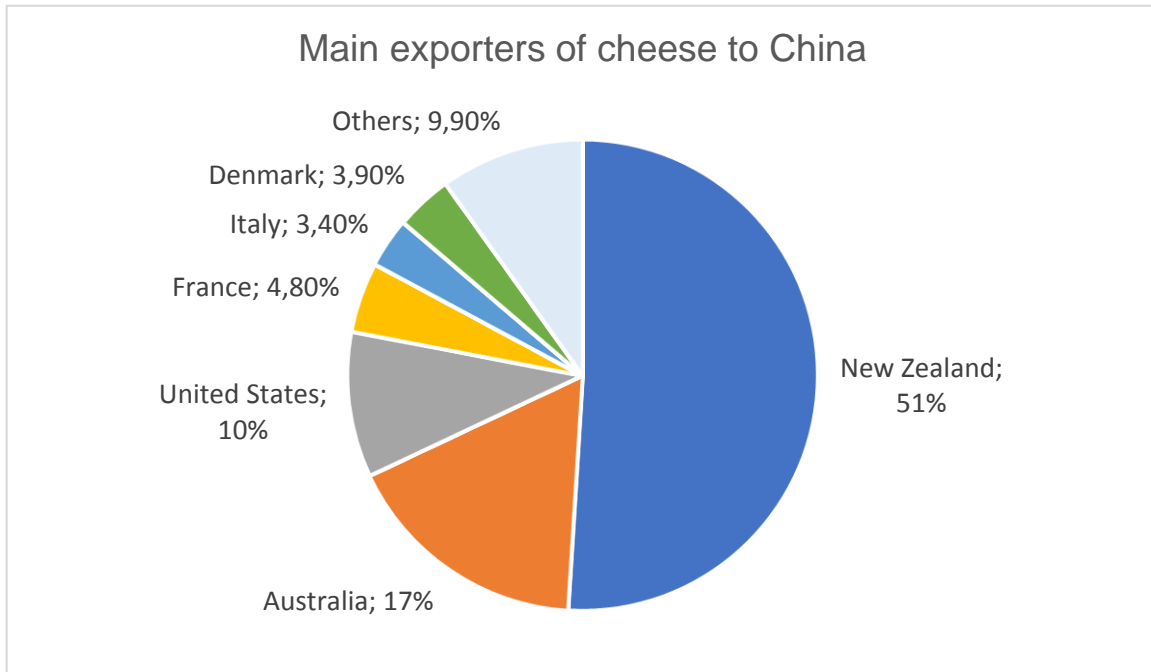


Figure 8. Main exporters of cheese to China (Daxue Consulting 2019).

According to the Figure 8, New Zealand stand out as a main exporter of cheese accounting for half of the market share. New Zealand stands for the largest supplier of cream cheese and mozzarella. Australia and the United States are catching up to New Zealand with 17% and 10%, respectively. Australia posts large volumes in fresh cheese and processed cheese, while the United States is strong in grated powdered cheese. Denmark, France and Italy and others together account for 22%. (Bord Bia 2018.)

The main domestic players in the Chinese cheese market are:

- Bright Dairy and Food Co
- Mengniu Dairy Co (joint venture between Danone and Arla)
- Yili Group
- Bongrain Foods Co Ltd

The main foreign competitors in the Chinese cheese market are:

- Fonterra(New Zealand)
- Anchor(Netherlands)
- Hochland(Germany)
- The Laughing Cow(France).

The price of 1 kg of cheese is largely in the range from 44¥ to 150¥, with the average price accounting for 87¥ (\$13) (Numbeo 2019). Distribution channels include (Marketing to China 2013):

- 94% in supermarkets and hypermarkets
- 4.8% in small independent grocers
- 1.9% in other food retailers

Overall, from the abovementioned data, there is a profound tendency in the Chinese cheese market for growth and continually increasing consumption of it. In addition to that, the domestic supply remains relatively low in contrast to the demand, meaning there is a niche for market penetration and development. Even though there are already several companies operating in the Chinese cheese market, the competition level is still relatively low. The market is still on the rise, and CAGR reflects positive outlook in terms of market growth. Taking into account the increasing urbanization and globalization, the keen interest of Chinese people towards healthy food along with Western food expansion in China, it is recommended to focus on tier 1 cities as target markets. Also, it is recommended to choose distribution channels which meet the demand in the best way possible.

3.2.2 Yoghurt products

Yoghurt products represent a quarter of the total dairy market in China with a continually increasing market share CAGR. In fact, the Chinese yoghurt market became the largest in the world in terms of volume. During the period from 2012 to 2017, yogurt sales more than doubled, reaching USD 16.95 billion (CNY 119.2 billion) (China AG 2018). In contrast, milk sales have increased by just 18% during the same period.

The domestic dairy market is only able to cover 75% of the domestic demand for yoghurts (eCommerce China 2018). The gap between the demand and supply side is covered by imported yoghurt products. From 2014 to 2017 yoghurt imports increased from 3,945 metric tons (MTs) to 28,188 MTs, or by 614%. The equivalent import values rose from USD 13.8 million to USD 53.1 million, or by 284% (China AG 2018). The

main exporters of yoghurt products are Germany (81%), Spain(5%), Poland(3%), Austria(3%) (China AG 2018).

Figure 9 illustrates the market share of the domestic companies operating in the yoghurt market by sales volume during the period from 2014 to 2015. Megniu Dairy Co., Yili Group and Bright Dairy and Food Co. stand out as the market leaders, accounting for around three-fourths of total yoghurt market.

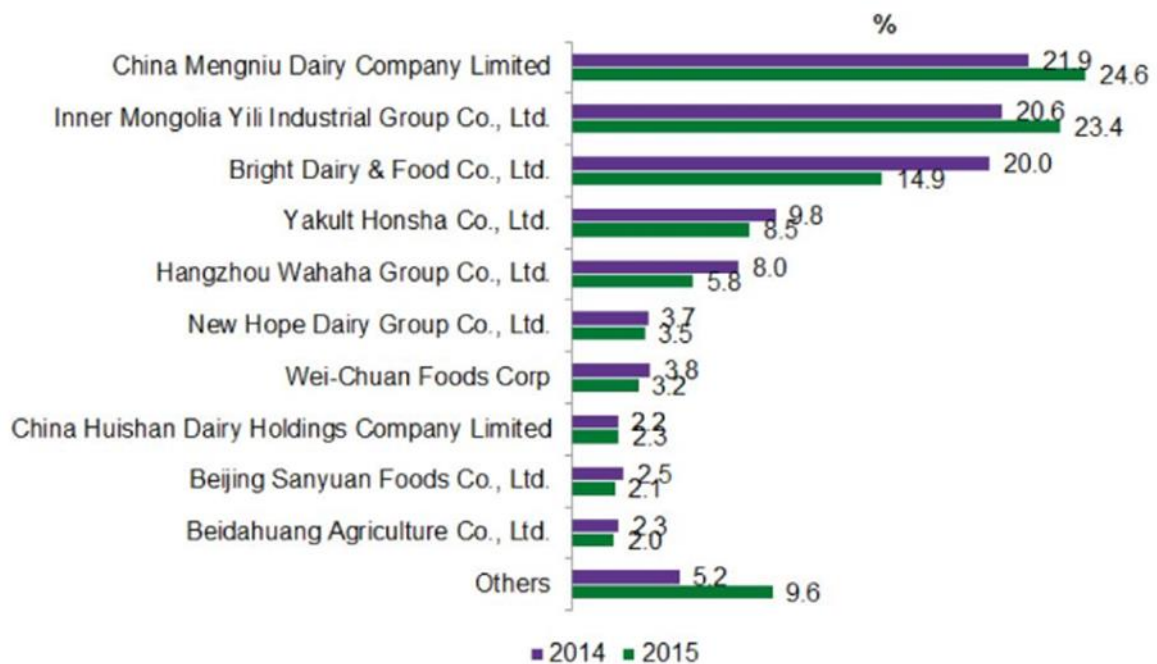


Figure 9. Leading companies' market share in China yoghurt market by sales volume during 2014-2015 (Dairy Reporter, 2016).

Having analyzed their product range and sales volume by each product type, it revealed that most of the sales are addressed to shelf-stable drinkable plain yoghurt (DBS 2017). Shelf-stable yoghurt refers to pasteurized heat-treated yogurt that is shelf stable. The increasing popularity and consumption of shelf-stable drinkable plain yoghurt over chilled ones is defined by multiple factors, such as:

- Food safety risk of any type of bacterial contamination is minimized because of production process
- Greater market coverage including small cities and towns that lack adequate cold chain logistics
- Longer shelf life in contrast to chilled yoghurts

- On-the-go lifestyle (Chinese people prefer to carry yoghurt to work, school, etc. for later consumption).

Despite the fact that plain yoghurt has the highest demand, some dairy companies start to diversify their product range by adding flavored yoghurts, which are becoming trendy as well. Specifically, the most popular tastes include:

- Strawberry
- Tropical fruits(coconut, kiwi, mango or pineapple)
- Blackberry
- Peach.

Hypermarkets and supermarkets are major distribution channels of yogurt. However, yoghurt online sales are gradually increasing.

To sum up, yoghurt products have witnessed a profound accelerated growth in consumption since 2011. Yoghurt products reflect a quarter of the dairy market in China with continually increasing CAGR of market share. Amid rapid growth in the consumption of yoghurt products, demand is outpacing domestic supply by 25%, meaning that there is a niche for imported yoghurt products. The main exporters of yoghurt products are Germany, Spain, Austria and Poland. Shelf-stable drinkable plain yoghurt represents the best performance in terms of sales volume in China. In addition to that, shelf- stable yoghurt provide better logistics solutions since they have a long shelf life and do not require cold temperature during transportation and storage. The following factors play into the hands of foreign brands by increasing cost efficiency and lowering potential safety risks related to logistics and storage. Flavored yoghurts and chilled yoghurts are catching up with relatively high CAGRs of market shares. The main distribution channels are convenience stores, hyper-, supermarkets and growing online sales.

3.2.3 Infant formula

Just over 20% of women in China breast-feed their babies; this is much lower than the global average of 38 percent (China Daily 2017). This means that most parents (80%) in China are using infant formula for feeding babies. This represents a huge market.

Due to its ageing population, the Chinese Government cancelled its one child policy in 2015 in order to stimulate the birth rate. In turn the demand on infant formula will consistently increase providing outstanding opportunities for growth and development in this niche.

Moreover, according to the China's National Bureau of Statistics, 30% of urban household expenditure is spent on children (Daxue Consulting 2019). Increasing disposable incomes induce parents in China to spend more on their kids, in turn making infant formula market even more lucrative.

According to Euromonitor, the baby food market, which includes infant milk formula, is worth 128 billion yuan (\$18 billion) in China and is estimated to increase to 160 billion yuan (\$23 billion) over the next five years, much of it driven by foreign brands (Marketplace 2018).

After the melamine scandal in 2008, an event which shattered Chinese consumers' trust in domestic producers of infant formula and dairy products in general, the infant formula market became a "goldmine" for foreign brands. Local producers of baby formula start to lose market shares, while import volumes have been gradually increasing (Figure 10) .

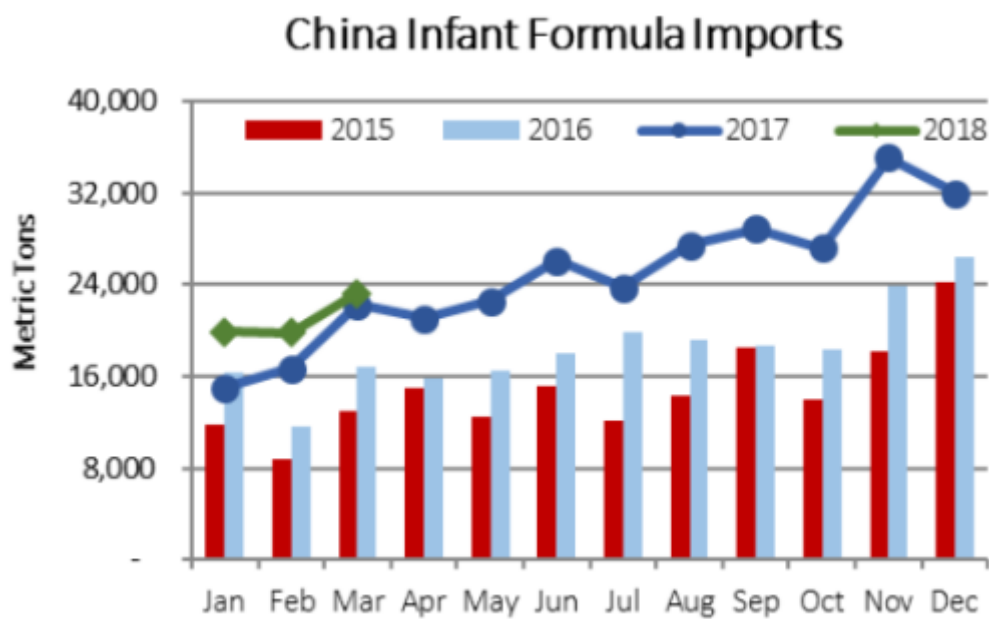
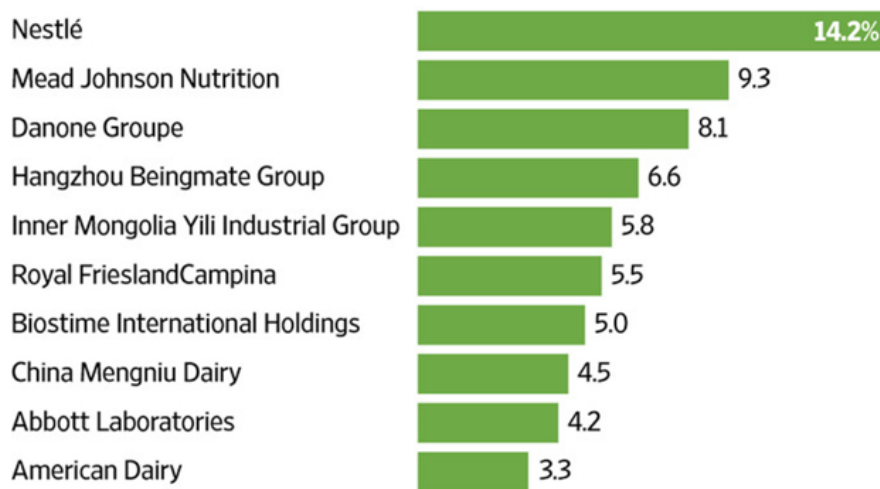


Figure 10. China Infant formula imports during the period from 2015 to 2018 in MTs (HighGroundDairy, 2018).

According to Euromonitor International, the top five infant formula companies operating in China are all based in the U.S. and Europe and account for around a half of the infant formula market (Figure 11) (MarketingtoChina 2019).

Players in China's infant formula market by share



Source: Euromonitor

Figure 11. Players in China's infant formula market by share(Wall Street Journal, 2016)

According to Mintel research, 75% of all Chinese mothers aged 25-34 choose to feed their babies organic infant formula. Among the consumers of the infant formula, the group of people that between 29 to 35 years old are the majority. The number of consumers between 23 to 28 years old is climbing, too. (Mintel Research 2017.)

Another research based on a focus group of 200+ consumers has revealed that nearly three in five (59%) named nutritional value as one of the two factors most important to them when choosing formula, while 45% chose quality and 39% chose safety. Importantly, only 6% of consumers said price was an important factor. (Marketing to China 2019.)

To sum up, market of infant formula experiences consistent growth and continuous development. The melamine scandal of 2008 has dramatically reshaped the infant

formula market by shattering the market share of domestic producers, in turn providing a 'goldmine' for foreign brands of baby formula. Moreover, the abolishment of one child policy has positive effect on the birth rate, in turn providing opportunities for further market growth. According to various research, Chinese consumers still prefer foreign brands of infant formula with the emphasis on nutritional value, quality and safety.

3.3 Challenges

Having defined key opportunities and trends, it is vitally important to evaluate possible challenges. Specifically, lactose-intolerance need to be considered, since according to The National Institutes of Health 65 per cent of all humans have lactose-intolerance which varies from less than 10 per cent in North Europe to 95 per cent in certain Asian countries (including China) and Africa. (DBS Research, 2017) In addition to lactose-intolerance, free trade agreements between China and New Zealand and Australia pose additional entry barriers.

4 CONSUMER BUYING BEHAVIOR

China's dairy market witnessed a profound tendency of accelerated growth which has turned it into a 'goldmine' which led to a massive inflow of foreign brands and escalation of competition. Having defined key trends, opportunities and possible challenges in the China dairy market, author has conducted a questionnaire(Appendix 1) designed to evaluate, analyze and understand consumers' buying behavior regarding dairy products. The questionnaire is aimed to identify main factors affecting the decision-making related to the buying process of dairy products in China.

The cornerstone in the questionnaire stands for designing right questions which shed the light on the situation and context. Thus, following questionnaire and results are based in accordance with 5 basic questions, such as:

- What?

- Why?
- When?
- Where?
- How?

Questionnaire consists of two categories which include different set of questions such as:

- Buying behavior and preferences
- Distribution channels and marketing

The first part is designed to provide answers on what are the customers' preferences, why customers buy dairy products, and how often do they buy dairy products. Second part is designed to provide answers on where they prefer to buy dairy products, and how respondents find out about brands of dairy products. It is expected that the outcome of the questionnaire could be used in designing an user persona as well as helps in identifying the best distribution channels as well as marketing strategy and marketing mix.

The questionnaire has been distributed via Chinese social network called WeChat during the research period from beginning of March till the end of April of 2019. Results are based on the 54 fully completed questionnaires which were received till the deadline of the research period. Answers were collected into a Table 4(Appendix 1)

4.1 Buying behavior and preferences

Following chapter provides general overview of the Chinese consumers buying behavior by examining their preferences, habits, tastes regarding the dairy products. According to the results of the 54 respondents regarding the preferences in terms of the dairy products' brand origin:

- 19 of the respondents prefer domestic brands
- 24 of the respondents prefer foreign brands
- 11 have no specific preferences

According to the results, majority of the respondents have chosen quality and nutritional value(18 and 13 of the respondents respectively) as key factors affecting their decision of the purchase of dairy. Price, brand and promotional activities have less impact on customers' decision, but still need to be considered.

According to the results, most of Chinese prefer to buy dairy products because they are healthy and tasty(16 and 14 respectively). The rest of respondents buy dairy products because it is popular, or they like to try different food. Most of the respondents prefer to buy dairy products twice per week, the rest of the respondents buy once or several times per week, just a few buy every day.

To sum up, Chinese consumers have preferences in terms of foreign brands of dairy products. Chinese consumers reflect low level of price sensitivity and switching cost as well as low level of brand loyalty, but product value reflect high importance. Primary motivation to buy dairy products is defined by beliefs in its positive impact on health and taste admiration.

4.2 Distribution channels and marketing

This chapter is aimed to provide answers on where Chinese consumers prefer to buy dairy products and how do they find out about dairy products. It is expected that the outcomes can be used by the case company to identify the best distribution channels and help to create relevant marketing mix.

According to the questionnaire results, majority of Chinese customers prefer to buy dairy products in the supermarket(24 out of 54 respondents). The rest of the respondents buy dairy products in retail stores or in the Internet(14 and 12 out of 54 respectively).

Most of the respondents found out about the brands of dairy products from the word of mouth, in the Internet or via sales promotion activities. TV commercial, newspapers and advertising blotters are least effective marketing channels. It was found that

Chinese customers are eager to share their positive/negative experience with relatives and friends.

5 CONCLUSIONS

Overall, given paper presents concise overview of the China dairy market by answering the research questions mentioned in the first chapter. Specifically, it provides brief evaluation of the business environment in China, analysis of dairy market in China and general understanding of the buying behavior of Chinese consumers.

According to the conducted PEST analysis, business climate in China is mixed, but negative sentiments prevail. General economic slowdown partly induced by the overlarge government and off-balance debt burden as well as increasing political instability and economic uncertainty amid trade disputes between China and United States are major factors affecting business environment in China. Despite government efforts, corruption and red-tape as well as complex and ever-changing legal and tax policies pose additional risks and entry barriers.

Albeit negative economic and political factors affecting business climate, disposable incomes as well as consumer spending are gradually increasing in turn reflecting sound demand. However, despite the cancellation of One Child policy, China has faced demographic issue such as ageing population, which may have negative impact on the demand and consumption in the long-run.

China dairy market witnesses a profound tendency of the growth and continually increasing demand for last two decades. Main drivers of the growth include globalization, urbanization, Western-leaning palates orientation and increase in the health consciousness of Chinese consumers.

Yoghurt products, infant formula and cheese stand for main trends prevailing in China dairy market nowadays. Yoghurt has gained the biggest market share accounting for around 25 per cent with second highest CAGR since 2011. The domestic supply is only able to cover the local demand for yoghurts by 75%, giving outstanding

opportunity to take advantage of this market niche. As to the cheese, it accounts for low market share in China dairy market, but it reflects positive outlook for further growth with leading CAGR. In fact, the demand is outpacing domestic supply by more than two times, meaning that the rest is covered by imported cheese. Turning to the infant formula, it represents a huge market reflecting positive outlook for continuous growth according to a range of factors. Bearing in mind that most of the parents (80%) in China are using infant formula for feeding the babies, cancellation of the One Child policy, and continually increasing amount of infant formula import for last decade, it provides lured niche for market entry.

It is crucial to take into account possible challenges and threats such as entry barriers. Lactose intolerance in Asian countries including China, free trade agreements with New Zealand and Australia, level of competition, etc.

Having conducted questionnaire designed to evaluate, analyze and understand buying behavior of Chinese customers in terms of dairy products, it provided useful information which can be used in creating user persona profile and marketing mix. Results from the questionnaire identified that most of Chinese customers prefer foreign brands of dairy products. Product value in terms of quality and nutritional value are main factors affecting their choice. Primary motivation of the consumption of dairy products is defined by positive impact on health and taste admiration. Chinese people prefer to buy dairy products twice per week in supermarket, retail store or in the Internet.

Overall, despite mixed business environment, dairy market reflects positive outlook and potential for growth. There are risks related to economic and political situation in China as well as there can be challenges with entry barriers, however demand on dairy products, in particular on yoghurt, cheese and infant formula is gradually increasing. Taking into account the gap between domestic supply and demand, it provides additional opportunities to start export operations.

6 RECOMMENDATIONS

The recommendation presented in this chapter are related to the personal findings, challenges and opportunities faced during the research process. First, it is

recommended to conduct a series of questionnaires designed by product type(i.e. questionnaire designed for studying the market of infant formula or cheese). It was found that questionnaire aimed to study dairy market in general has lack of efficiency due to high level of divergence and inaccuracy in answers(i.e. for consumers who buy yoghurt the most important factor is price, but for customer who buy infant formula the most important factor would be quality or nutritional value).

It is better to conduct more detailed and deep analysis of competitors including product range, pricing, marketing, distribution channels, etc. It is recommended to apply 5 Porter's forces framework to illustrate the findings and provide better outcome. In addition to that, it is recommended to study China legal policy related to the export operations in details as well as organize supply-chain management and logistics issues(i.e. incoterms)

Lastly, following thesis may lack of theoretical knowledge, but author was aimed to provide outcome based on practical approach and which can be used by the case company.

REFERENCES

- Bord Bia.2018. Cheese Imports in China.
<https://www.bordbia.ie/industry/manufacturers/insight/alerts/pages/cheeseimportsinchina.aspx> 11.04.2019
- China AG.2018. Yogurt market brief. <https://www.chinaag.org/2018/10/31/china-yogurt/> 23.04.2019
- China Briefing.2019. New Tariff, Export Duty Cuts in China for 2019 – Wide Variety of Products Affected. <https://www.china-briefing.com/news/new-tariff-export-duty-cuts-china-2019-wide-variety-products-affected/> 24.03.2019
- China Daily.2017. Breast-feeding rate remains low in China.
http://www.chinadaily.com.cn/china/2017-08/02/content_30330467.htm 14.04.2019
- China Debt Clock.2019. <https://commodity.com/debt-clock/china/> 25.03.2019
- China Risk Management. Political Risk.
<http://www.chinariskmanagement.com/Political.html> 22.03.2019
- CNBC. 2019. <https://www.cnbc.com/2019/01/21/china-2018-gdp-china-reports-economic-growth-for-fourth-quarter-year.html> 03.03.2019
- Corruption Percentage Index. 2018. <https://www.transparency.org/country/CHN> 22.03.2019
- Dairy Reporter.2016. Price of raw milk declines as China increases Lucerne imports: Dairy Association of China.
<https://www.dairyreporter.com/Article/2016/09/14/Price-of-raw-milk-declines-as-China-increases-Lucerne-imports> 13.04.2019
- Daxue Consulting.2019. China Baby Food Market Analysis.
<https://daxueconsulting.com/china-baby-food-market-analysis-case-study/> 14.04.2019
- Daxue Consulting.2019.The cheese market in Shanghai.
<https://daxueconsulting.com/cheese-market-shanghai/> 10.04.2019
- DBS Group Research.2017. China Dairy Sector.
https://www.dbs.com/aics/pdfController.page?pdfpath=/content/article/pdf/AIO/072017/170728_insights_focusing_on_dairys_downstream_segment.pdf 07.04.2019
- eCommerce China. The Yoghurt Market in China : An Opportunity for Foreign Brands. <https://ecommercechinaagency.com/yoghurt-market-china-opportunity-foreign-brands/> 13.03.2019
- EU SME Centre.2013. The Dairy Products Market in China. <http://ccilc.pt/wp-content/uploads/2017/07/thedairyproductsmarketinchinaeusmecentre.pdf> 14.04.2019
- Forbes.2014. The 2008 Milk Scandal Revisited.
<https://www.forbes.com/sites/yanzhonghuang/2014/07/16/the-2008-milk-scandal-revisited/#1ed0430d4105> . 25.02.2019

- Forbes.2018.Debt, Not Trade War, Is China's Biggest Problem.
<https://www.forbes.com/sites/panosmourdukoutas/2018/11/24/debt-not-trade-war-is-chinas-biggest-problem/#6e0a3de4c4d0> 21.03.2019
- HighGroundDairy. 2018. China Dairy Import VolumeData & Analysis.
<https://www.highgrounddairy.com/market-intelligence/report/354>
14.04.2019
- Index of Economic Freedom. 2019. <https://www.heritage.org/index/country/china>
10.03.2019
- Investopedia. 2019. The World's Top 20 Economies.
<https://www.investopedia.com/insights/worlds-top-economies/> 1.03.2019
- Investopedia.2017. Index of Economic Freedom.
<https://www.investopedia.com/terms/i/index-of-economic-freedom.asp>
10.03.2019
- Marketing to China.2013. <https://www.marketingtochina.com/the-cheese-market-in-china/> 25.03.2019
- Marketplace.2018. Foreign infant milk formula still highly coveted in China 10 years after the melamine scandal.
<https://www.marketplace.org/2018/10/24/world/foreign-infant-milk-formula-still-highly-coveted-china-10-years-after-melamine> 14.04.2019
- Mintel Research.2017. Chinese demand for infant formula expected to keep growing.
<http://www.ausfoodnews.com.au/2017/05/17/chinese-demand-for-infant-formula-expected-to-keep-growing-mintel.html> 15.04.2019
- Nalobodyan, S. CEO of Voloshkove Pole. Voloshkove Pole office. Interviewed on 20.04.2019
- National Bureau of Statistics of China. 2018.China Disposable Income per Capita.
<https://tradingeconomics.com/china/disposable-personal-income>
20.03.2019
- National Bureau of Statistics of China.2018.China Household Debt to GDP.
<https://tradingeconomics.com/china/households-debt-to-gdp> . 20.03.2019
- Numbeo. 2019.Cost of living. <https://www.numbeo.com/cost-of-living/> 19.03.2019
- Numbeo.2019. Food prices in China. https://www.numbeo.com/food-prices/country_result.jsp?country=China 13.04.2019
- Political Freedom Index.2019. <https://freedomhouse.org/report/freedom-world/2019/china> 21.03.2019
- Santander.2019.China: Foreign Investment.
<https://en.portal.santandertrade.com/establish-overseas/china/foreign-investment> 15.03.2019
- South China Morning Post.2018. China's ageing population problem worsens as birth and marriage rates fall. <https://www.scmp.com/news/china/policies-politics/article/2155366/chinas-ageing-population-problem-worsens-birth-and> 24.03.2019

- Statista.2018. 98% Of Chinese Internet Users Are Mobile.
<https://www.statista.com/chart/15202/the-number-of-internet-users-in-china/>
- Statista.2019. Alibaba continues to lead retail e-commerce sales in China in 2018.
<https://www.statista.com/chart/14717/alibaba-continues-to-lead-retail-e-commerce-sales-in-china-in-2018/> 06.04.2019
- Statista.2019. Milk Products; China.
<https://www.statista.com/outlook/40010000/117/milk-products/china>
07.04.2019
- Statista.2019. Number of online shoppers in China from 2006 to 2017
<https://www.statista.com/statistics/277391/number-of-online-buyers-in-china/> 06.04.2019
- United States Department of Agriculture. 2017. A Report from the Economic Research Service. China Dairy Supply and Demand.<https://www.ers.usda.gov/webdocs/publications/86231/ldpm-282-01.pdf> 19.02.2019
- Voloshkove Pole website. Company description. <http://milkgroup.com.ua/en/>
20.04.2019
- Wall Street Journal.2016. Chinese Head to the Web to Buy Imported Baby Formula.
<https://www.wsj.com/articles/chinese-head-to-the-web-to-feed-infants-1470157625> 18.05.2019
- Washington Post.2015. 30 charts and maps that explain China today.
https://www.washingtonpost.com/news/wonk/wp/2015/09/24/china-explained-simply-with-charts/?noredirect=on&utm_term=.4cac98f94488
25.03.2019
- World Bank. 2010. "Finding the Tipping Point -- When Sovereign Debt Turns Bad"
<https://elibrary.worldbank.org/doi/pdf/10.1596/1813-9450-5391>. 28.02.2019
- World Bank. Population growth.
<https://data.worldbank.org/indicator/SP.POP.GROW?end=2017&locations=CN&start=1960> 23.03.2019
- World Bank.2018. Doing Business Report: China Carries Out Record Business Reforms, Edges into Top 50 Economies.
<https://www.worldbank.org/en/news/press-release/2018/10/31/doing-business-report-china-carries-out-record-business-reforms-edges-into-top-50-economies> 19.03.2019
- World Poverty Clock.2019. <https://worldpoverty.io/> 24.03.2019

Questionnaire

1. Do you prefer to buy domestic or foreign brands of dairy products?
 - A Foreign
 - B Domestic
 - C No specific preference

2. What is the key factor(s) affecting your decision of the purchase of dairy products?
 - A Price
 - B Quality
 - C Brand
 - D Nutritional value
 - E Promotional activities
 - F Other

3. Why do you buy dairy products?
 - A I like the taste
 - B It is healthy
 - C It is popular
 - D I like to try different food
 - E Other

4. Where do you prefer to buy dairy products?
 - A Supermarket

- B Retail store
- C Internet store
- D Other

5. How often do you buy dairy products?

- A Once per week
- B Twice per week
- C Few times per week
- D Every day
- E Other

6. Will you intend to buy the same brand of dairy products that you have previously tried?

- A Yes
- B No
- C Other

7. How do you typically find out about brands of dairy products?

- A Word of mouth
- B In the Internet
- C TV commercial
- D Sales promotion
- E Newspapers and advertising blotters
- F Other

8. Do you recommend brands of dairy products that you have previously tried?

A Yes

B No

C Other

Question #	Answers					
	A	B	C	D	E	F
1	24	19	11	-	-	-
2	8	18	7	13	5	3
3	14	16	11	5	8	-
4	26	14	12	2	-	-
5	14	19	11	5	4	-
6	21	24	9	-	-	-
7	17	14	5	11	3	4
8	35	7	12	-	-	-

China's most favored nation(MFN) tariffs for commodities of interest

Table 1. China's most favored nation(MFN) tariffs for commodities of interest (USDA,2017)

China's most favored nation (MFN) tariffs for commodities of interest		
Description (Harmonized System code)	Type	MFN rate 2015
Alfalfa meal and pellets (121410)	Feed	5.0%
Other forage products (121490)	Feed	9.0%
Bovine semen (051110)	Input	0.0%
Vaccines for veterinary medicine (300230)	Input	3.0%
Live pure-bred breeding cattle (0102)	Input	0.0%
Milking machines (843410)	Input	10.0%
Dairy machinery (843420)	Input	6.0%
Milk and cream of less than 1% fat, not concentrated or sweetened	Dairy	15.0%
Milk and cream of greater than 1% fat, not concentrated or sweetened	Dairy	15.0%
Milk and cream in solid forms (all fat levels) and concentrated milk and cream, unsweetened (excluding in solid form)	Dairy	10.0%
Sweetened milk and cream (excluding in solid form) and yogurt and dairy spreads	Dairy	10.0%
Buttermilk and products consisting of natural milk constituents	Dairy	20.0%
Whey and modified whey	Dairy	6.0%
Butter and other fats and oils derived from milk	Dairy	10.0%
Fresh cheese and cheese	Dairy	12.0%
Grated or powdered cheese	Dairy	12.0%
Blue-veined cheese	Dairy	15.0%

Source: United Nations Conference on Trade and Development (UNCTAD), 2017, and New Zealand Ministry of Foreign Affairs and Trade (MFAT), 2015b.

National Standard on Infant Formula

Table 4: National Standard on Infant Formula (EU SME Centre, 2013)

- National Standard: GB 23790-2010 – Infant Formulas

Index of Protein, Fat and Carbohydrate					
Nutrient	Unit	Per 100 KJ		Per 100 Kcal	
		Min	Max	Min	Max
Protein ^b :					
• Milk-based infant formula	g	0.45	0.7	1.8	3.0
• Soybean-based infant formula	g	0.5	0.7	2.25	3.0
Fat ^c in which:					
• Linoleic acid	g	1.05	1.4	4.4	6.0
• α -linolenic acid	g	0.07	0.33	0.3	1.4
• Linoleic acid/ α -linolenic	mg	12	N.S. ^a	50	N.S. ^a
• Acid ratio		5:1	15:11	5:1	15:1
Total Carbohydrate ^d	g	2.2	3.3	9.0	14.0

^aNo Specification.

^bFor infant formulas based on milk protein and its processed products, the content of lactalbumin should be over or equal to 60%; the content of protein should be calculated as nitrogen (N) x 6.25; for infant formulas based on beans and their processed products, the content of protein should be calculated as nitrogen (N) x 5.71.

^cIn the finished products, the total content of lauric acid and myristic acid (tetradecanoic acid) should not exceed 20% of the total fatty acid; the maximum content of trans fatty acid should not exceed 3% of total fatty acid; the eruc acid content should not exceed 1% of the total fatty acid.

^dThe content of lactose in total carbohydrate should be over or equal to 90%.

National Standard on Cheese

Table 5: National Standard on Cheese(EU SME Centre, 2013)

- **National Standard: GB 5420-2010 Cheese**

Item	Plan of Sampling and Limit
Coliform	n=5, c=2, m=100 cfu/g, M=1000 cfu/g
Staphylococcus aureus	n=5, c=2, m=100 cfu/g, M=1000 cfu/g
Salmonella	n=5, c=0, m=0 cfu/25g
Listeria monocytogenes	n=5, c=0, m=0 cfu/25g
Yeast ^a /(cfu/g)	50
Fungi ^a /(cfu/g)	50

^amold ripened cheese is not included.