The Future of Food Business

The FACTS→The IMPACTS→The ACTS

2nd Edition

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World Scientific

NEW JERSEY • LONDON • SINGAPORE • BEIJING • SHANGHAI • HONG KONG • TAIPEI • CHENNAI

Published by

World Scientific Publishing Co. Pte. Ltd.
5 Toh Tuck Link, Singapore 596224
USA office: 27 Warren Street, Suite 401-402, Hackensack, NJ 07601
UK office: 57 Shelton Street, Covent Garden, London WC2H 9HE

British Library Cataloguing-in-Publication Data
A catalogue record for this book is available from the British Library.

THE FUTURE OF FOOD BUSINESS
The Facts, The Impacts and The Acts
Second Edition

ISBN 978-981-4566-97-1 (pbk)

In-house Editor: Alisha Nguyen

Typeset by Stallion Press
Email: enquiries@stallionpress.com

Printed in Singapore

Marcos Fava Neves describes the very complex global food chain and suggests methods and tools that can be used by companies to adjust their strategies and operational concepts in an ever rapid changing world. He discusses trends, world food crises, food chain complexity and strategic planning for food companies. It is an essential read for entrepreneurs and researchers who are active in the worldwide food chain network.

Hans Johr — Corporate Head of Agriculture — Nestle, Switzerland

The Future of Food Business presents a comprehensive look at our challenges in food chain, combining theory with relevant examples in this space. This should be mandatory for all students and professionals that work in agribusiness.

Renato Seraphim — Business Development — Bayer, Latin America

Professor Fava Neves' knowledge and insights on the complexity of food chains is impressive. Food safety crisis is never such a big challenge to the stakeholders of the food chain in China, especially to the government authorities of various levels and agribusiness companies. *The Future of Food Business* is a valuable tool for them as well as the researchers to find practical solutions to address the tough food safety and quality problems in China.

Jiqin Han — Professor — Nanjing Agricultural University, China

I think the research and analysis done by Dr Neves leading to a rather conclusive strategy is a good reflection of his deep insight into the food value chain. The presentation style in the book makes for easy reading too.

M.D. Ramesh — CEO — OLAM, Africa

With an ever growing population and limited natural resources, *The Future of Food Business* is an extremely valuable resource for anyone interested in understanding the dynamics of the food supply chain, and what the future of food business holds, particularly at a time when we find ourselves grappling with critical issues which will have a lasting impact on natural resources, the entire food system and how it is governed.

Adil K. Sattar — Executive Director — K&N's, Pakistan

Marcos develops creative ideas based on facts that are likely to contribute to the shaping of the food sector over the next ten years. His visions are accompanied by innovating tools very helpful for entrepreneurs, young managers and government officials by doing their strategic planning in the food sector.

I fully share the epilogue of his book where he outlines the importance and the characteristics of managers that "make it happen."

Hans Peter Baier — COB — Bongrain/Polenghi, South America

The Future of Food Business is an easy-to-read book. Each chapter presents an important issue and ends with intriguing questions for debate, which makes it particularly useful in strategic planning processes. Highly recommended.

Mary Shelman — Director — Harvard Business School, USA

The path forward to 2050 requires new innovative thought leaders in order to meet the challenges of increased food production for a growing and affluent global population. Dr. Fava Neves motivates readers to rethink how business gets done on frontlines.

Paul Jasper — CEO — Covered Logistics and Transportation, USA

In less than 35 years, Africa's population will double to 2 billion people, approximately 25% of the global population then. Large areas are richly endowed with land and water, yet Africa remains a net importer of food. Professor Marcos Fava Neves, a very good friend of South Africa and Africa, has again shown, through *The Future of Food Business*, the way to develop globally competitive value chains that provide sustainable food security solutions and growth for the sector.

John Purchase — CEO — Agribusiness Chamber, South Africa

Marcos' book elucidates the impending food challenge that will be a central concern for most governments in the immediate future; he puts forth innovative practical solutions to address the issue. The book is a must read for not only concerned people in the public and private enterprises but responsible citizenry all over the world. The book should be part of reference reading for most college graduates to create an awareness about the issues as they are impacted most by the food crisis.

Raj Vardhan — Vice-President — OLAM International, China

I had the opportunity to actively participate in a one day seminar of Professor Marcos Fava Neves in Saint Louis, USA, where the content of the book was presented and discussed. I am amazed about the knowledge the author has about the food industry.

Sundarajan G.B. — Suguna Foods Limited, India

I bought the book *The Future of Food Business* from Kinokuniya in Singapore. It was a very unusual literature I ever came across on a book stand and bought it immediately after glancing once. I'm in the aquaculture segment operating in Singapore, and found this book very useful for my business future planning. It opened a wider perspective of my business and truly contributed in mapping my business operation and strategic plan.

Frank Tan — Marine Life Aquaculture Pte Ltd, Singapore

Marcos is a profound analyst of global food and agribusiness issues. He has a great vision, youth behavior and sagacity to understand complex environment and translate in a simple message.

Gustavo Grobocopatel — CEO Los Grobo, Argentina

Considering all the macro-enviromental changes that are affecting food companies and agribusiness, Dr. Marcos Fava shows us in a simple and clear way, what are the trends and impacts of this market in the future, and presents solutions, studies and new methods to elaborate an effective Strategic Plan. *The Future of Food Business* is required reading for students, agribusiness professionals and entrepreneurs.

Liza Rocha — Account Manager — Natural Design, Brazil

Food used to be a day-to-day task to provide for it and it is very close to everybody's imagination. However, today's society is characterized by individuals who are regarded to be a food expert but it takes people like Dr. Marcos Fava Neves who not only explains today's food supply and puts food into a global perspective but also challenges tomorrows needs and requirements. All with an open mindset and in a stimulating and inviting style. I suggest you join and become a knowledgeable food entrepreneur as well.

Marc van Genuchten — Commercial Director — Continental Juice/ Cutrale, The Netherlands

Marcos Fava Neves is a novel professor who tries to understand why some players apply certain strategies, move in different directions or work with several companies. His insights in this new book are the result of the study of food and agribusiness at theoretical and practical levels. He provides many examples and cases with strong theoretical support leveraged with his experiences as advisor of companies, networks, chains and clusters in Brazil, Argentina, Uruguay, and the US among other countries. As a result, Professor Fava Neves' book, a must for students as well as for entrepreneurs, has the makings of a best seller.

Sebastian Senesi and Hernan Palau — Professors — University of Buenos Aires, Argentina

The challenge that we have to feed the world in the next fifty years is enormous. I am very pleased that Dr. Fava Marcos is making the effort to enlighten those people not working in agriculture so that they have a better understanding of the magnitude of the efforts that are needed for us to be successful.

Jerry Moye — President Cobb — Vantress International, USA

This book provides an answer to the future of food business challenges. Really, we are living in a time when the world is more connected, and equally the challenges are more complicated as never before, furthermore society, environment and economics are interconnected more. Within this view, Marcos Fava Neves presents solutions and our future thinking to address the problems in simple and innovative manner with scientific discoveries. In addition, this book is very informative in how to fill the gaps in the world's demand for food and society responsibility during this uncertain and volatile food market.

Thank you for showing us the facts, the impacts and how to act…

Mogos Yakob Teweldemedhin — Professor — University Polytechnic of Namibia, Africa

Marcos Fava Neves has written a very intelligent book providing both expert as well as the general public stimulating insights into the intricacies of the global food business. In view of its complexities and challenges this book is a must-read.

Guy Kempfert — Director — Syngenta Basel, Switzerland

Message to the Reader

This book is very special to me for several reasons that I hope it will stimulate the reader. It shares my opinions and thoughts about the future of food business, based on 25 years of interactions with food and agribusiness companies, farmers, governments and other public and private organizations. These interactions took place during my stint as a scientist at the university, in my other professions as executive or when proposing as a planner or project manager. It all began when I entered the Agricultural Engineering School at the University of São Paulo (ESALQ) in 1987, in the city of Piracicaba, Brazil. Since then, my life has progressed through more than 150 projects, three employments, 50 books in 8 countries, 500 lectures, 250 conferences and innumerous interviews.

My grandfather was a farmer, my family continues to perform successful farming, but unfortunately, I am not a farmer. My life is dedicated to studying, reading, writing, lecturing and engaging in discussions. Moreover, my life's objective is to listen and pay attention. I try to do this in all my travels, from Brazil to New Zealand, from China to the US. I love to ask questions and listen to the answers whether it is from a South African food company, or from a small farmer in India, or from a Government official in Europe. This is the best way to learn: listen to people and then… think and write.

At an average, in the last 10 years, I have taken around 100 flights every year, so most of the ideas here were organized and written at 10.000 meters above the sea level! Travelling by air is a wonderful discipline, since airplanes confine you and isolate you, so creativity emerges. As internet and other connectivity issues become readily available, and on board entertainment increases with hundreds of movies, we will probably lose this discipline and these unique moments.

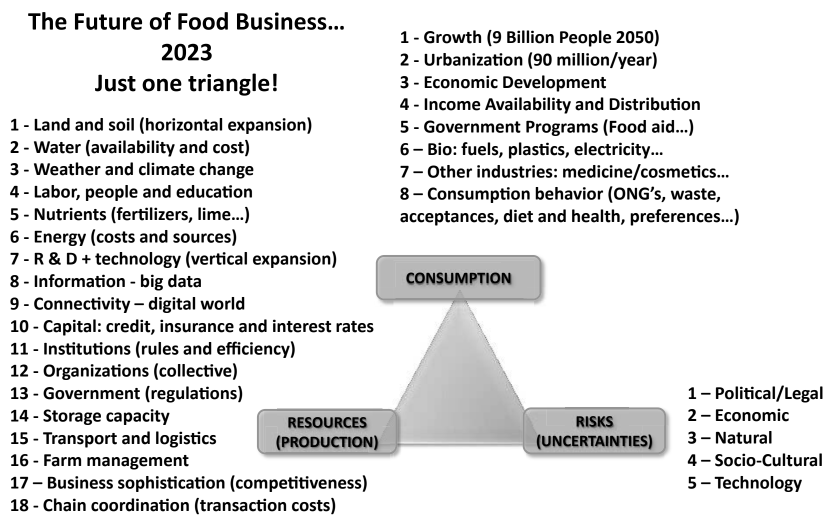
The reader will see that I have produced very small chapters, that are simple to read, with a central message, along with a tool or method and a table to fill up, ending with a question to discuss. It is an informative, but a much more working book, since you will be challenged to answer questions, by yourself, or use it in company workshops or roundtable discussions. This was my purpose, since I always finish my lectures with a "to-do list" or an agenda proposal.

The story behind this book started back in 2009, when I had a chance to speak in Beijing and toward the end, the editor of *China Daily* newspaper asked me to produce a small article of my speech for them to publish. Since then I have published more than 70 articles with *China Daily* newspaper. These articles have been reproduced in this book with tables and figures to help the discussions.

I use these articles in my undergraduate courses at the University of São Paulo and Purdue University, outside lectures, in my in-company MBAs, trainings, workshops and board meetings. I hope the book would be useful and contribute to developing a more efficient food industry, more efficient farms, food systems, efficient government policies, thus ensuring sustainability, inclusive growth and reducing hunger.

I also hope this book would be a useful tool in boosting your careers. I am sharing ideas that you may not agree, but at least they would add to your arguing capacity.

The following triangle resumes the book of *The Future of Food Business*. It talks about the drivers of growing consumption, the resources needed to produce and that are sources of competitive advantage and finally, the major risks.



Source - Marcos Fava Neves: *The Future of Food Business*. Published by World Scientific, 2011, 213 p. mfaneves@usp.br

It was a plesure to review this second edition at office 785 of Krannert Building, Purdue University, West Lafayette (Indiana, USA) during 2013. This is a special spot as I had my first job here as a paperboy of "Journal and Courier" during 1977 and 1978, when my father was doing his post-doc studies and we lived here.

So from a 10-year-old boy delivering newspapers, I found the resources to study, and ended up writing articles for newspapers some of which are packed in this book.

It is indeed a wonderful coincidence that I have successfully transformed from delivering content (paperboy) to generating content (researcher and writer) in the same city.

Finally, family and friends are the most beautiful things of this life. So, I dedicate this book to all my friends, from all over the world, and to my family, my parents, relatives and specially to my wife Camila and my three daughters, Beatriz, Julia and Cecilia.

— Marcos Fava Neves —

Foreword

When we consider food in the future, there will definitely be more questions than answers, as the subject of food is both complex and controversial. Discussions about food — including the social, economic and environmental impacts — seem to be happening everywhere today, from the classrooms of the most elite academic institutions to developing countries where people are rioting due to lack of food security.

Many heavy questions, demanding response, are weighing on the food industry and the world…

How will we meet the food demand of our growing population? What are "best practices" in agriculture and food production?

How do we increase the nutritional value of calories consumed to achieve a higher quality of life for people from all socioeconomic segments?

One thing is for certain, the answers to the questions that challenge the food industry, from the laboratory to the supermarket, will not be satisfied through one perspective alone. With this in mind, there are platforms which can have a real and positive impact on food's future including:

- Creative partnerships through which organizations can combine resources of infrastructure and human capital to generate exponential impacts.
- Innovation frameworks based on openness, transparency and global perspective.
- Global knowledge sharing models which transfer best practices in a locally relevant manner.
- I commend Marcos for boldly addressing *The Future of the Food Business* and for the spirit of collaboration in which he approached this project.

The future is hopeful. We are living in a time when the world is more connected than has ever been before. The speed of innovation and scientific discovery is constantly accelerating, offering new solutions to "fill the gap" in the world's demand for food. As a society and an industry, we have a strong sense of clarity around "what" we must accomplish. Our responsibility, as we move into the future, is to collaborate and make the contributions we can to achieving the "how."

We at Novus, in pursuit of our vision "to help feed the world wholesome and affordable food," commit ourselves to Marcos' challenge everyday and we hope that after reading this book you will join us.

Thad Simons — President and CEO — Novus International Inc.

The right to life and well being are the most fundamental of all human rights as without them nothing else is possible. To guarantee these rights, universal and sustainable access to food and adequate nutrition are essential cornerstones for survival and development.

Science confirms that the potential exists to produce enough high quality food to ensure adequate nutrition for every person on earth. In great part the challenge seems to rest in the creating adequate structures to permit universal access. The experience of China in the new era where hundreds of millions sustainably left the ranks of the starving and formed an essential part of the foundation for the current level of economic growth and social development. Across a gap of space and time, the experience of Brazil which tackled the challenge of the undernourished with commitment and creativity shows that change is possible and that the results are impressive in human, social, environmental and economic terms.

In all of this, one of the great lessons learned or perhaps an assumption reconfirmed is the power of the concerted effort of all the involved stakeholders. To achieve the power to innovate at the level and to the extent needed to successfully address the challenges of helping all people have sustainable access to appropriate nutrition can most effectively be reached by integrating the interrelated power of all sectors: public, private, civil and academic.

This book provides a pragmatic platform for the four sectors to address the challenges and provides access to an array of valuable supports to help turn theory into practice and all relevant cases into models. The power of the book lies not so much in the book itself but in the results the leaders of government, business civil society and academic will reap from all it provokes.

Dr. Annie S. C. Wu — Standing Member —
National Committee of Chinese People's Political Consultative Conference;
Vice Chairman — Beijing Air Catering Company Ltd.
and Board Member, World Trade Centers Association, China

Contents

Part 1

The Food Production Chains Environment

Chapter 1

Environmental Changes Affecting Food and Agribusiness: What Are the Trends?*

The objective of this chapter is to share some important changes in the macro-environmental variables that may affect more companies operating in food and agribusiness industry.

I will use the traditional PEST analysis to summarize the major thoughts. The PEST (or STEP) analysis is a traditional tool to understand macro-environmental changes where "P" represents the political–legal environment (institutional environment), "E" refers to economic and natural environments, "S" is for the socio-cultural environment and finally, "T" is for the technological environment. These four environments help to organize the macro-environmental variables and are the first and very important "step" in strategic planning processes.

Starting with the ***political–legal*** environment, we may say that instabilities in Iran and other Middle East countries, North Korea and Northern African countries are affecting oil prices, together with the growth in oil consumption from emerging economies. This will help to leverage the biofuel industry even more, since high oil prices would boost investments in finding alternate resources and stimulate government policy of blending biofuels into gasoline thus resulting in economic and environmental benefits.

Lower interest rates in Europe are driving enormous flow of resources to emerging economies which are suffering with the valuation of their currencies, eroding their competitiveness. Also, some expected reforms are not progressing in important food/agribusiness producing countries resulting in increase in costs of several commodities.

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*First published in *China Daily* (March 31, 2012).

Developing countries' tax management policies are confusing with newer protections and market access limitations. We face increasing risks of interference (regulation), some examples being the limitations exercised in food advertisements to kids and regulation toward foreign investments in land. In developed economies, we see shorter federal budgets as an argument to remove support for some less efficient agribusiness industries and even farmer support programs.

The ***economic and natural*** environment shows that in this decade, economic growth would probably be coming mostly from emerging countries (it was expected that in 2012, 5.5% average of GDP growth would be achieved by developing economies compared to 1.5% growth in developed economies) due to larger pace of income distribution in populated emerging economies.

Exchange rate policies are being used often thus affecting competitiveness of regions. Flow of capital and investment in food and agriculture brings a new environment of capital availability and increasing risks.

Since there is an increasing influence of weather in some regions, we see a shift in the production regions. Such shifts are also influenced by land prices and labor. New agricultural frontiers are being developed by local and international companies following governmental incentives for value capturing in producing regions (more processing than others). Also, in the economic environment, bigger environmental pressure will increase production costs and we see more initiatives of buyers increasing coordination over suppliers (farmers).

The ***socio-cultural*** environment shows some interesting changes. Migration and urbanization are leveraging the growth of processed food, the protest and mobilization movements are increasing pressure over inclusion, thus signalizing to the companies that such trends could be an opportunity within the supply chain. The companies face growing risks from consumer movements. The demographic trends of reduction on family size and people living alone continue to boost food service and ready to eat markets. There is also an increasing concern about food waste, and we see growing debates in this field.

Consumers are also demanding more information — whether the production treats its suppliers, i.e., farmers with fairness, consumers prefer to encourage direct trade and value what is "local." Natural and health-linked food movements continue strong thus creating an awareness and increase in the demand for certifications of products, companies and food chains. Finally, there is a larger acceptance of biotechnology, with focus over genetically modified products.

Another important point is an increasing pressure thrust by society and buyers against protection of some industries. For example, several sugar buyers in the US are protesting against high import taxes and other support programs for local sugar industry that have led to higher costs than international markets.

Finally, as we enter the era of commodities, there is an increasing pressure over natural resources within the ***technological*** environment. A lot of investments are taking place in the development of biotechnology and nanotechnologies, and in the

Table 1.1.

Facts and impacts to business

List of facts	How they impact our business?

Source: Author

communication side, we can see the rapid transformation of society with digital world and new media improving the speed of communication. Availability and speed of information is facilitating in identify product sources and other relevant information quickly. Technologies that allow to recycle and reuse have higher value than before.

This chapter highlights some of the changes that emerged from recent discussions with business managers and executives. These are facts that will bring specific impacts to the industries and food chain participants that are desiring newer strategies, or improvements in their planning processes, respectively.

Discussion question

How will all these facts impact your business?

Chapter 2

Let Us Ensure the Seven Billionth Inhabitant Is Well Fed*

Much ink has been spent on warning us about the future of the planet, scarcity of resources, difficulties in the continuance of present-day lifestyles and consumption, availability of food and land, increased carbon prices and inflation, shortage of water, increase in obesity and other issues that have made us a lot more sensitive to the fundamental changes taking place around us.

What drove this blanket media coverage was the arrival of person number 7,000,000,000 on the planet. By the time you pick up the next issue of the *China Daily European Weekly* seven days from now, the world will have more than 1.5 million new mouths to feed.

Just to illustrate the scenario, global consumption of wheat is growing (three years average) at 10 million tons a year, corn almost 30 million tons a year and soya 20 million tons a year. The consumption of meat grew almost 20% in nine years. In essence, we have access to food but production is not responding the way it should. Last year alone we had a deficit of 50 million tons of grain.

Asia is creating a huge middle-class income population, with a possibility of almost 1 billion people in the middle class segment. All projections done 10 years ago on production, exports and imports in China are found incomplete, and some are plain wrong. In 1995, China produced and consumed 14 million tons of soybeans. Last year it produced 14 million tons and imported 70 million tons, and these figures exceed what has been projected for 2030!

If China wants to be self-sufficient in soybeans today, over 35 million new ha need to be dedicated to the crop. But this is unnecessary, since there are countries and regions in the world full of areas to supply food to China.

All this will become even more complicated in the coming years, due to the five-year strategic plan of China that focuses on income distribution and better working

* First published in *China Daily* (November 4, 2011).

wages. Thus, we can expect more income for poor people being reflected immediately in higher food consumption.

It is not only in China that food markets are growing at incredible rates. The food market in India is expected to grow from $155 billion (112 billion euros) in 2010 to $260 billion in 2015. In the same period, Thailand's food market is expected to grow 50% and Indonesia's from $65 billion to $100 billion. Imagine what could happen in Middle East and Northern African countries, in Africa as a whole and in South America, with the booming economies of Brazil and Argentina representing almost 250 million people.

Food commodities prices rose almost 40% last year. This increase is bringing back inflation, hunger and political disturbances in some developing countries, where people spend between 30% and 50%, and sometimes more, of their incomes on food and are net importers of oil.

Two basic questions need to be answered. The first is: Why do commodity prices keep rising and the price of industrialized products keep falling?

Several factors are putting pressure on food commodities markets, some of which are: the big increase in income and distribution in emerging economies (with no accurate consumption data); urbanization; changing consumption habits; emerging countries' government family income support programs; high oil prices and the use of grains and agricultural land for biofuels; food production shortages (due to climate, unsustainable water use, plagues and diseases, cost increases and other factors); the devaluation of the US dollar and investment funds speculation. Two of these factors need to be looked at more closely.

An increasing number of industries are using farmland more intensively as the main source for their products. Farms (agricultural lands) were originally "designed" for food production and now they are being occupied to produce fuels for our cars, to feed animals (habits are changing to eating more protein), for generating biofuels and biomass (electricity), bioplastics, paper and pulp. Agricultural land is also diverted for manufacuturing purposes as in pharmaceuticals, beauty products (cosmetics), clothes (cotton), shoes, leather, tires and other rubber products, construction and furniture and so on. Since land does not grow, the pressure mounts on existing land and as a consequence land prices increase dramatically.

The second question relates to the increase in cost for producing commodities. Traditional commodity suppliers are facing huge changes in cost structures, increase in prices of land, labor, water, fertilizers and crop protection. It is a fundamental change.

For example, a glass of orange juice offered at the G20 meeting in Cannes no doubt came from Brazil (about 90% of world market share). This juice is produced from oranges planted in São Paulo state, crushed in modern factories and moved in dedicated trucks and vessels using world-class logistics to Rotterdam. The cost of all this production and operation per ton of juice delivered in Rotterdam was $500 in 2003. Seven years later, the operational cost is about $1,500.

It is an incredible increase, and if consumers want to keep this chain alive, they will have to accept new price levels. These are the facts, but there are solutions.

How can the G20 countries work together to address the food supply and security issues in the coming decades toward 2030?

Food chains and governments have two ways of solving the future problems related to food demand. One is retreating to an increase in protectionism, stimulating noncompetitive areas to produce in an "economically artificial environment" and resuming war-time policies of "self-sufficiency." The other is a production shock, moving toward growth, global trade and inclusion.

Since 2008, I have recommended 10 solutions (Figure 2.1) to address food supply and security issues for the era of "doing more with less":

We would need to place more emphasis on technology, we need better land use and management, plant and animal production technology, waste management, diffusion and knowledge transfer, storage and movement of infrastructure and creative research and innovation in governance architecture.

1. Expand sustainably and horizontally in food production using new available areas in South America and Africa where water is not scarce
2. Expand vertically increasing productivity
3. Reduce food taxes and other market protections and barriers that increase costs and inflate food prices for the final consumers
4. Invest in global logistics to reduce waste and costs in transporting food
5. Use the best sources for biofuels production that do not compete with food chains (ethanol from sugar cane is the best example, when compared with corn for feed)
6. Invest in reducing transaction costs that occur in all food chains
7. Look to a new generation of cheaper and innovative sources of fertilizers (today they represent a high cost to farmers)
8. Ensure there are sustainable contracts to farmers for more balanced margins allocation
9. Spread innovations (genetically modified organisms, nanotechnology and others)
10. Change consumer behavior to promote the habit of consuming the appropriate amount (smaller portions) and promote awareness about consuming too much food (obesity)

Figure 2.1 10 Points — Doing more with less.

Source: Author.

It is now time to redesign food chains. It needs to be understood that the food system has changed and merged into a much more sophisticated system, taking in commodity companies and consumer companies alike. Food represents culture, economic development and a new integrated partnership system. There is a thin line between private companies, public companies and NGOs, and this conversion is making people sit and work together to avoid conflicts of interest.

Farmers worldwide, but mostly in emerging nations and Africa, need price incentives, technology, credit and buying contracts (market access) to invest and grow production to a level that can meet the increasing food demand in the next 10 to 20 years and solve the food crisis.

If the United Nations, FAO and G20 are worried about food prices, they would need to convince governments to debate their tax systems urgently, even to the extent of giving lower-income people temporary government support, all the while moving as fast as possible toward implementing the 10 points outlined above.

Food production will need to double in 10 years, and the world has the land, technology, water and farmers (people) to achieve it. Food chains should move in the right direction: there should be incentives for achieving sustainable growth in global farm production and trade that would generate welfare, inclusion and peace.

To produce more food with sustainability, there is a lot to do, and I trust it can be done. So let's welcome our 7 billionth kid.

Discussion question

What are the major opportunities that arise for your company from the discussions of this chapter?

Chapter 3

Dry Spell Necessitates Plan for a Crisis*

The droughts in some grain, food and biofuel-producing countries particularly in the US, India, Russia, Ukraine and Kazakhstan, may have a variety of possible effects.

The US experienced its most severe drought in the past 50 years. About 37% of its farms and 43% of its agricultural areas faced water restrictions.

The US is the largest grain producer in the world, and the effects of this drought are serious.

In India, the monsoon is delivering less water than needed, which may reduce the production of sugar cane and some other crops. We must recognize that India is becoming a large food consumer due to its economic growth.

In this article, I am sharing my thoughts about the possible impact of droughts. These impacts may be classified as primary, which happen immediately after the news of the drought; or secondary, which are not felt immediately, but as a consequence of a behavioral change that may occur in the following planting season as well as in research, governance and institutional environment.

1. The prices of soybean and corn might go up and pull other grains with them.
2. Depending on the amount of stock used to guarantee supply, reserves of these commodities will be lowered to a dangerous level, which may signal higher prices for commodities for more than just the next crop as stocks are rebuilt to a safe level.
3. Higher prices have terrible effects on less-developed countries that need to import these grains for their population's food requirements. High food prices are also directly related to political instability.

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* First published in *China Daily* (August 15, 2012).

4. Countries with large middle-income population will also be affected, since the amount spent on importing food will be much higher, which might happen to China.
5. With higher grain prices, the cost of feed for pork, poultry, cattle, fish and other industries increases. In turn, their margins may fall dramatically, since passing costs on to supermarkets is not automatic. Meat will be one of the most threatened industries.
6. The biofuel industry will be similarly affected. Since the prices of the raw materials used to produce them (such as corn) are higher, margins may be reduced, threatening the industry. In addition, prices will be transferred to the final consumers of biofuels, reducing the economic benefits of biofuel use and making some consumers switch back to oil.
7. Food prices will rise in supermarkets and supply chains will be under pressure to cut costs, affecting industries such as advertising and packaging.
8. Since food is the last item to be cut when a family faces income restrictions, this price increase will also hit other industries, because part of the family budget will be shifted towards food (away from entertainment and other industries).
9. Farmers not affected by the droughts will have significantly higher margins, making it possible to buy more land and invest in technology. This may lead to more concentration at the farming level, particularly in the southern hemisphere.
10. Mandatory biofuel programs will be threatened in some countries, particularly in the US. There might be pressure to reduce the mandates in order to use more of the grains for food. If this happens, these industries will lose markets and sales, which will be difficult to recover in the coming years. It is a short-term view, but a risk.
11. If some countries switch back from biofuels to oil (petrol), consumption will grow, putting pressure on oil prices. This will also increase production and transportation costs for food chains, since a lot of oil is used in transport.
12. The reversion to oil will bring more pollution from transport systems' carbon emissions.
13. An increase in food prices may shift some consumption from outside food toward home-prepared food, switching marketing channels from restaurants to supermarkets.
14. There will be an incentive for the southern hemisphere to produce more soybeans and corn, replacing land used for cotton, wheat, cane and sunflowers. As their production will decrease, we may expect higher prices for these products.
15. Better prices will allow farmers to use more fertilizers, chemicals and technology. This will increase productivity, which may help to replenish commodity stocks.
16. Insurance companies and systems will be in line to cover production losses due to the drought. The discussion over who will pay the bill and what percentage of it will be split between the government (mostly in the US) and insurance companies is still going on.

17. India's reduced cane production may raise sugar prices, since the country would probably need to import sugar.
18. Higher food prices may stimulate programs to reduce food waste. A lot of food is lost within the food chain, and price pressure may bring positive externalities for the future.
19. There might be economical effects from trade deficits and surpluses in several countries, affecting their GDPs and even their currency exchange rates. We may expect many more regulations over food trade in several countries (including export quotas and production incentives). We may also expect political tensions over scarce water resources.
20. We could also see more pressure on seed, chemical and genetics companies to produce plants that are resistant to drought. Should this technology come from only one supplier, we will have more concentration in seed markets.

These are some of the impacts that may happen due to the severe droughts. Some researchers recently addressed the notion that these droughts may become more common in the future, which will pressure other countries to be developed for food production.

We must also recognize that these droughts are coming at a time when food consumption is growing internationally. We will need to increase production and productivity faster than we expected.

In addition, the risks in food-production chains are increasing, making their planning more difficult and bringing the food crisis to the discussion table.

From this list, we can see that droughts will have several consequences. This framework may open our minds for discussions on the topic and help us to anticipate future situations both at private and public levels.

Discussion question

Considering these 20 points as a framework, how would droughts affect your organization and how would you overcome their impact?

Chapter 4

Effects of Exchange Rates in Food Trade*

The objective of this analysis is to share the possible impact of exchange rate movements in international food and agribusiness trade. The case to illustrate such impact will be Brazil, where its currency the Real (R$) faced huge variations since it was created and is recently going through a devaluation, thus impacting one of the world's largest food exporters.

The article is organized in three sections. The first will talk about the historical background of exchange rates and their impact on food chains. The second section is about the new exchange rate in Brazil and what could be expected from such a change. The third section is related to possible internal consequences of the lower value of the Real and how can the Brazilian Government control these problems.

Traveling to the past, the Real was launched in 1994 as part of the economic plan to stabilize the economy and enhance the institutional progress of the country. This currency is interesting to study since the trade value (exchange rate) towards the US$ varied in the last 18 years from US$1 to R$0.85 at early beginning, to R$3.8 than to R$3.2 and R$1.55 in July 2011. The Real, in 2011, was one of the most valued currencies in the world.

This *strength of the currency* was a consequence of, among other factors, the stabilization of the economy, political stability, improvement of its institutions and exports of basic nonfood commodities. The large amount of international investments in Brazil and higher international prices of food and commodities made annual exports of Brazil jump from US$20 billion in 2000 to US$100 billion in 2012. A silent revolution in food exports and corresponding fast growing world demand for food made an inflow of US$ into the country.

The overvalued Real brought an explosion of imports to Brazil, such as cars, electronic equipment, wines and other products from several sources. By end-2011,

* First published in *China Daily* (May 24, 2012).

almost 22% of the products consumed in the country were imported. This brought intense and new competition for companies operating in the internal market, but benefiting consumers at supermarkets with access to worldwide products, although more expensive than, for instance, when purchased in the US.

The overvalued currency also allowed two other movements: imports of equipment (capital goods) and machinery that improved competitiveness and enabled Brazilian companies to invest abroad opening new marketing channels. Several food companies expanded operations outside Brazil, taking advantage of the strong local currency.

Some negative impacts were seen in tourism with reduced international tourists (Brazil was very expensive) and the explosion in outward traveling and expenses of Brazilians. Most products, except the food commodities, had very tight and even negative margins in exporting activities and gradually companies reduced their exports. This happened in shoes, textiles, some processed foods, flowers, fruits and others.

The fact is that the Real went from US$1/R$1.55 to US$1.0/R$2.0. This is an important movement that can recover some margins and stimulate exports again, and as a consequence, more production, productivity, scale gains, efficiency gains and expansion in offering locally manufactured products in international markets. Sectors of more processed food that are cost intensive may now reach positive margins to export.

This new exchange rate will help to compensate food production costs increases due to poor logistics, more expensive labor (disputed by other sectors of the economy, like construction), strict environmental restrictions, higher land costs, higher energy costs, higher taxes that prejudice margins when producing in Brazil.

Finally, the most dangerous effect in all countries that face this situation is the risk of inflation returning, with terrible consequences, mostly for poor people. We have seen this in several neighboring countries of Brazil where imported products become more expensive, more products are exported and other factors contribute to the rise of inflation.

There are several ways for the government to mitigate this risk. Since the government may receive more income in taxes due to higher exports pulling more internal production, lowering taxes and also reducing nonessential governmental expenses may contribute to reducing prices in the internal market. The speed at which interest rates have fallen in Brazil may gradually reduce. A situation of a relative crisis in parts of the world make Brazil a target for international companies to market their products at reasonable prices that may help controlling prices. If we were in an era of excess of world demand, this would not impact positively. Finally, in some markets where prices were raised internally due to the exchange rate, the government may reduce import taxes.

In this chapter, by using the case of a large food exporter, Brazil, we have seen the impact in food chains when the exchange rate changes. For food importing countries, most of the impact from devaluation of the Real are positive, since Brazil will be stimulated to export more, and will be more competitive in these exports due to all the investments described above. So for China, one of the biggest food importers from Brazil, these are good news, making even possible to expand the diversity of food imported.

Discussion question

Using this framework of the various effects of exchange rates variations, would an exchange rate movement affect your company? If yes, what preventive measures could be taken?

Chapter 5

From Farms to… Everything*

This chapter provides an interesting glimpse into the current state of our farms and farmers. From a traditional perspective of a farm producing food, recent technology innovations and other advancements are enabling farms to be multiproduct and service suppliers. At least 13 industries increasingly source their raw materials from farms:

1. **Food and Beverages:** to produce human food, including grains, fruits, eggs, vegetables, juices, milk, beef, fibers and others to an increasing and richer population demanding quantity, quality, procedures, conservation, environment, animal welfare and others.
2. **Feed:** food for the animal's growth and development, involving nutrition of larger animals, for pets and others.
3. **Fuel:** biofuels blending programs, which means fuel coming from the farm using corn, wheat, sugar cane, sugar beet, grasses, residues and other sources.
4. **Pharma-Medicine:** the growing end-use called "nutra-ceuticals" which means food products together with medicine, it involves producing products that have health benefits, like juice with calcium, lycopene, vitamins, proteins, omegas, and several other merged products.
5. **Pharma-Cosmetics:** products from food/farms that have benefits in terms of beauty, skin, tanning, and other characteristics desired by consumers ("nutri-cosmetics").
6. **Electricity:** farm products used as a renewable source of electricity, burning biomass in boilers and generating heat that is transformed into electricity, sold to the power network.
7. **Plastics:** replacing plastic coming from oil with renewable plastic coming from green and farm materials, like plant based bottles coming from cane or corn.

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* First published in *China Daily* (January 13, 2011).

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8. **Environment:** farms are being used in the battle against global warming, recovering forests, creek surroundings, rivers, and even benefiting from participation in carbon credit markets.
9. **Entertainment/Tourism:** use of farms and rural lands for tourism, weekend rest for urban families, festivals, educational purposes with kids in schools, hunting and similar recreational services.
10. **Textiles and Clothing:** natural fibers used to produce textiles and clothes for the fashion industry, like cotton and others.
11. **Shoe and Leather:** leather comes from cattle and other animals.
12. **Construction and Furniture:** wood from planted farms using eucalyptus, compensated woods and other sources.
13. **Paper and Packing:** materials come from processed farmed wood, producing a pulp that is transformed into paper products.

I have covered here 13 industries (see Figure 5.1) whose products come from farmers and consequently benefit from their existence. Surprising!

So the inherent message is: let's respect our farmers, let's give more value to our farmers. They play a much more important role in our day-to-day urban lives than we can imagine.

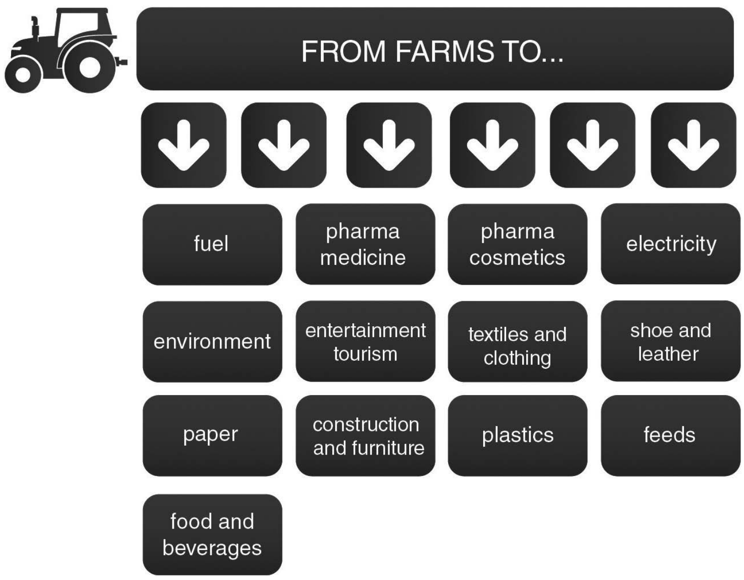

Figure 5.1 13 Points — From farms to... everything.

Source: Author.

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Discussion question

Which new industries will benefit or use farms in the future?

Chapter 6

Navigating the Global Food System*

The International Food and Agribusiness Management Association (IFAMA) is an association of academics and industry established in 1990 as a forum that meets annually to discuss the future of food and agribusiness. In June 2010, the 20th Conference of IFAMA (www.ifama.org) was held in Boston. Bringing together around 300 food and agribusiness experts and managers from around the world, the major discussions were about the global food systems in a new era, and companies such as Sysco, Coca Cola, Los Grobo, Novus, British Foods, Fonterra, Alltech, COFCO, Rabobank and GlobalGAP had the opportunity to share their positions.

One of the most important topics discussed was the macro-environmental trend toward an increase in food consumption. Asia is creating a huge middle-class income population, with the possibility of almost one billion people moving toward the middle class. All the projections made 10 years ago in terms of production, exports and imports for China/Asia are found to be incomplete, and some, very inaccurate. Soybean imports today are far above what was projected for 2030. When asked about this subject, a COFCO/China executive and presenter refused to give a projection even for 2020.

Rabobank predicts 109% growth in food consumption 10 years from now. If China wants to be self-sufficient in soybeans today, over 35 million new ha should be dedicated to soybeans. But where is the land? Importing soybeans into China, in fact, amounts to importing fresh water. Overexploitation of water resources is already creating problems in China and India. Half the world's population is located in less than a third of the arable land, and this means a large food trade in the future. We need bigger ships, bigger ports and more efficient logistics and transport systems.

* First published in *China Daily* (June 25, 2010).

The dilemma of having to use the same land to produce food, fiber, feed and fuel was also discussed. In a global perspective, around 10% of grains in the world go to fuel (biodiesel), 35% of the corn produced in the US goes to ethanol production and 50% of Brazilian sugarcane is used for fuel.

The good point about this is that there is capacity in agriculture to react toward food consumption and biofuels. In the last 40 years, food production has doubled and can double again, since farming is definitely becoming global, with an ever faster daily movement of buying land in the most cost-efficient producing countries. For Olam, based in Singapore and one of the most important sourcing and trading companies nowadays, supply chain arbitrages to produce cheaper and better is the way forward, so they invest toward supply in several countries using this philosophy.

The example of CHS Inc. (a large cooperative in the US) was discussed and is a lesson to other cooperatives across the world. Why? Simply because CHS Inc. is not attached to US land anymore, and is producing in Brazil, Eastern Europe and looking for other areas for expansion globally in the next 10 years. Farmers and cooperatives will be global, and South America is considered, before Africa, to be the next food frontier to be conquered, although it lacks investment in logistics.

The definition of agribusiness in 1955 was quite simple, since in the past most societies were 90% dedicated to agriculture. Redefining it nowadays is much more difficult as the food system has changed and merged to become a much more sophisticated system, from commodity companies to consumer companies. Food represents culture, economic development and a new integrated partnership system. Health insurance companies are working together with food companies, since food is the most important element of health.

There is a thin line between private companies, public companies and NGOs, and this is making people sit and work together to avoid conflict of interests. How do we know that what we are doing is good? To answer this question, third-party evaluators will become the fastest growing industry in the food business.

Those of us involved in education have to create managers who look at the totality of these decisions, since food production, health, nutrition, environment and climate control are not isolated public policy issues. We have to teach in a multidisciplinary way and not treat multifaceted problems as isolated. It is a new world of multidisciplinarity that we are navigating in, with very complex and fast moving waves of changes to be understood.

Discussion question

Can these messages help in formulating ideas for your company? If yes, please list them.

Chapter 7

The Roots of Food and Agribusiness Thinking*

January 2010 was a historical month for Harvard Business School, Boston. The traditional Cases Seminar completed 50 years of existence. Every year, around 200 executives from all continents join to discuss 12 case studies of companies that have something new for us to learn and spread this experience toward a more efficient and sustainable world.

The seminar has interesting dynamics. Each case is written up during the year by a team of Harvard professors and researchers. A traditional case has around 20 pages, with 10 pages of text and another 10 of annexes (financial and market data). The case reports the historical facts of each company, challenging times and decisions for the future, in terms of strategies.

In a case discussion event, like the Harvard Seminar, each participant has access to the HBS website to download the cases, materials and instructions and has to read the case in advance. At the seminar, each case is initially discussed with a small group of eight participants, to facilitate a more interactive opinion-building process. Then, the case is discussed at a plenary meeting, and finally, the CEO of the company answers questions and interacts with the audience. It is four-day event in which all participants are fully engaged. It is very difficult to take part in the event if the participants don't read the cases in advance, almost impossible.

Harvard is where the term "agribusiness" was first elaborated, in 1955. The concept was an attempt to bring more integration, considering agriculture as an activity strongly linked with suppliers of inputs, service providers, the processing industry, distribution systems, financial institutions and consumers. Later, in 1968, a new publication emerged. This book introduced the concept of "agribusiness systems." The difference here is that an agribusiness system considers the flow of one product

* First published in *China Daily* (January 26, 2010).

over an interactive system or food chain. The sum of all the systems operating in a particular country results in the country's agribusiness.

In the 2010 Seminar, 12 cases were discussed. There is already a tradition of having a case from China and inviting at least 10 executives from China to participate. In 2009, the COFCO case was written, presented and discussed. In 2010, the DaChan Food Company was in the spotlight. From DaChan we had a description of the company, its origins and its operations in feed and meat, how the company contracts farmers in an integrated system of producers, and the most important point was how DaChan developed a reliable system of transparency and traceability to guarantee quality for its buyers. DaChan has conquered an important position as a major supplier for international foodservice chains operating in Asia.

The other cases involved Cosan, which is Brazil's largest ethanol company, and its recent growth strategies. This case discussed the outstanding results that Brazil is achieving with ethanol. Monsanto was also a case, exploring the position of this company in innovation, acquiring seed companies as "transporters of technology" to farmers, and changing communication strategies, toward new trends of farmers. The innovation pipeline was discussed and we can expect more plants resistant to water scarcity in the future. The Woolf case explored the production of horticulture and almonds in California, and how water restrictions are threatening future production.

Rabobank, the largest cooperative bank, based in the Netherlands, was also explored, with its unique characteristics and the future growth strategies, with a focus on food and agribusiness systems. We also had Purecircle, which explored the market of stevia-based sugar, a natural sweetener; Ebro Puleva, the world's largest rice company, based in Spain, and Hungerit, which explored poultry production in Hungary, before and after the communist era.

Interesting experiences also came from GTC Biotherapeutics, a company dedicated to produce medicine and food, providing ingredients, proteins and other medicines from food and animals. Red Tomato was also a case, and this company is dedicated to linking local food producers to supermarkets.

Another intriguing case was Diamond Foods, which started as a farmers' cooperative and is now the leading company in the almond snacks market in the US, with farmers as shareholders of the company. A final case, Codevasf, was written by us. This is a public company in Brazil that is lending 8,000 ha of irrigated land to the private sector in a very interesting bid considering sustainable integration.

Discussion question

Which examples could be extracted from these companies for application in our company?

Chapter 8

Understanding the Global Food Consumer*

There is a failure in the introduction of new products for several reasons. Research done in the US, with 11,000 products launched by 77 companies, discovered that only 56% were in the market after five years. Similarly, it is incredible to see, even in 2013, companies providing poor services to consumers and inconveniencing them thus leaving consumers upset, not caring about the consumers' time, comfort and safety and totally disinterested in resolving issues or accepting feedback, are still active in some markets. But, they would not remain so for long. Why is it important to understand the consumer's behavior?

The understanding of a consumer's behavior is mainly to predict, with higher chance of accuracy, the behavior pattern and to discover the cause-and-effect relationships to the product's purchase and, also, to comprehend the education process of the consumer during his/her relationship with the company. It starts with the Buying Behavior Model analysis. The factors that will influence the consumers' buying decision process are the marketing stimulus introduced by the companies through product characteristics, price, place and promotion strategies, the external environment stimulus that contain economic, political, social and cultural aspects and finally the consumer characteristics that contain cultural, social, personal and psychological factors (Figure 8.1).

The Consumer's Buying Decision Process that comprises the Model shown in Figure 8.1 can be analyzed at a more detailed level. At the same time that the details of the stages are commented, there is an attempt to bring some tools that may be used by the food companies and also provide questions that they should ask consumers, in a structured market research or even in the companies' day-to-day activities, to identify their (consumers) preferences and deliver the best possible offer. The model can be seen in the Table 8.1.

Nowadays, food and beverage companies are facing important challenges that result from changes in the preferences of the end consumer. The objective of this

* First published in *China Daily* (April 6, 2010).

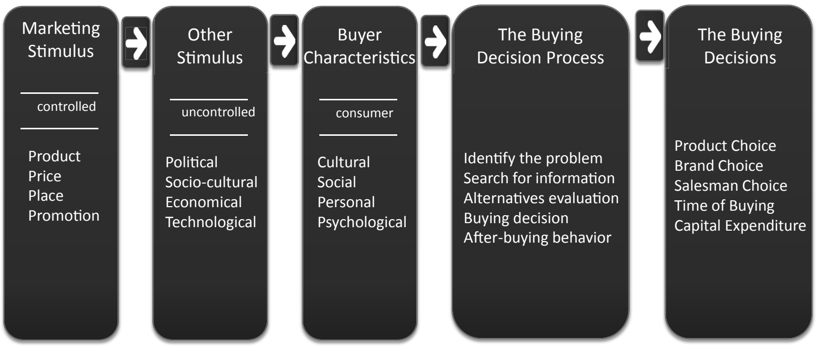

Figure 8.1 Buying behavior model.
Source: Author, based on Philip Kotler.

chapter is to point out a number of changes in the desires of food consumers worldwide, showing companies certain attributes of this trend that may be useful in the process of developing new products and in their communication with consumers, such as messages for advertising, sales promotion, and so on. In a creative way, I will highlight these preferences using the trends A to Z.

Authenticity and Ageing: Be authentic, recognize mistakes with honesty and respect the consumer (in recalls). Much additional care should be dedicated to the elderly consumer.

Beauty: Companies need to care about the appearance of the food, work hard at the sales place and use attractive packaging, since more than 70% of buying decisions are made at the point of sale.

Convenience and Citizenship: Products need easy handling and practical packages. The distribution channels must be chosen for fast and easy purchase. There is also a need for social activities that work toward creating closer contact with the local community.

Diversity: Consumers want a range of alternatives within the brand for each market segment. These must be attractive, colored, different, funny (not abusive) and mainly educative products.

Exotic characteristics and the Environment: Varied national and regional cuisines with exotic characteristics are linked to the desire for fun during meal times. There is also a valorization of the environment, creating opportunities for actions of sustainability, and products with a stamp of environmental preservation.

Functional Foods: Based on research, functional characteristics, such as weight reducers, energizers and medical characteristics, are added to the products. "The food will be the medicine."

Guarantee: Companies must honor their commitments to the consumer.

Table 8.1

Consumers Buying Decision Process

Stage of the process	How Does it Happen?	How can companies use it?	Questions to ask consumers...
1 - Buying Needs Identification	**Personal values and needs associated with the external influences, make the current situation different of the desired situation, thus a need appears.**	**➔ Apply the most frequent and efficient stimulus** **➔ The package must communicate these values, acting as a "mini out-door."**	**➔ What need is satisfied by consuming this product?** **➔ Are these needs evident?** **➔ In what extent are the target-consumers involved with the product?**
2 - Information Search	**The search is done through internal sources (memory, knowledge) and external sources (market and personal relations).**	**➔ Identify how the consumer searches for information and on which sources.** **➔ The company must work on the sources that mostly influence consumers.**	**➔ What product or brand does the consumer have in mind?** **➔ Is the consumer motivated to search for external sources** **➔ What are those sources?** **➔ Which are the most searched attributes?**
3 - Alternatives Evaluation	The consumer will choose the strongest alternative having the criteria that he or she most values.	➔ The company must identify, which attributes are most valued ➔ How to reposition attributes, repositioning competitors, changing also the analysis of the attributes	➔ Does the consumer evaluate and compare? ➔ Which alternatives and criteria? ➔ Can they be changed? ➔ What is the result of the alternatives' evaluation? ➔ Are the alternatives really different?
4 - Buying Decision	Decisions are taken related to the purchase itself, where to buy, when to buy and what to buy and, finally, how to pay.	➔ Sales place ➔ Alternative channels	➔ Will the consumer spend time and energy to find the best alternative? ➔ Where does the consumer prefer to buy the product (channel) and at what moment?
5 - After-buying behavior	Comparison between the expectations and the performance of the product. From extreme satisfaction and positive word-of-mouth to legal action against the company.	➔ Keep open communication ➔ Research to monitor the consumer satisfaction.	➔ Is the consumer satisfied? ➔ What are the reasons of this satisfaction/dissatisfaction? ➔ Are these discussed with other consumers? ➔ Is there any intention of repeating the purchase?

Harmony and Health: Consumers want equilibrium in communication, price, quality of products and distribution channels of the company. Think of products that have lower levels of sugar or cholesterol and are healthy. There is an opportunity here for products in the fitness line.

Innovation and Individualization: Intensify the launch of innovative products and ideas that represent new solutions. There is also a trend toward individual products, smaller packages, for consumers who live alone.

Jobs: Products that can generate jobs, with brands and stamps for small producers, or "job-friendly" products, or even cooperatives.

Labeling: There are several opportunities to label products, as the labeling acts as a very important source of information.

Meal Solutions: Offer real solutions to the final consumer's desires. The food service is getting bigger. More and more people go out for dinner to restaurants or fast food establishments, and even retailers are offering meal solutions.

Nostalgia: There is also a movement toward bringing back special moments from the past. We see an increase in old fashioned, or "retro" designed products and packages.

Organic: Products that refer to a clean environment or a controlled growth process have a growing market.

Practical and Price: Practical products are for day-to-day use, are quick to prepare and easy to use. Price is fundamental in decision making.

Quality: Quality is a basic requisite for operating in any market. Consumers have information and the media is pressurizing companies toward quality controls. Scandals spread very fast in the media and among communities.

Reliability: The origins, sources and methods of preparation have to be reliable in the consumer's mind.

Services: There are always opportunities to offer services to consumer that really add value to the company and the consumer.

Tradition and Traceability: The company has to evaluate carefully the maintenance of its tradition in the product line. Use arguments of age and time in the market. Efforts must be taken to transmit trust. Register history details of all products, from the farm to the final consumer. Thereafter, it is necessary to communicate this action mainly on clear packages for easy reading.

Uniformity: The consumer is not willing to accept variations in the product, especially those which a company claims to be standardized.

Value Proposition: Add value to the food, at the lowest cost, bringing in the concept of "best value" in the category.

Xenophobia: Present in some countries, and linked to the question of the valorization of domestic jobs and domestic production.

Young: There is the forever young movement; some consumers want to be and feel young, live longer and live more healthily.

Worldwide: Explore the global food consumer, who likes to recognize food wherever he or she is, linked to the open and global communications platform.

Zzzzz — (Speed): Companies cannot be slow. Speed is fundamental. Search web pages, be inspired by them if necessary, develop new ideas, be alert to new opportunities, always be ahead of competitors and surprise them and the consumers.

Table 8.2

Resume of the "ABC of the Food Consumer."

Attributes	The opportunities to the companies
A – Authenticity and Aging	• Take care in the launch of new products, following the needs of the target market. • Be authentic, recognize mistakes with honesty and respect the consumer (in recalls). • Take additional care when dealing with the aging consumer.
B – Beauty	• Care aboutt he appearance of the food. Work hard at the sales place. • Introduce attractive packaging.
C – Convenient and Citzenship	• Produce products that involve easy handling and practical packages. • Choose proper distribution channels for fast and easy purchase. • Involve in social actions creating a closer contact with the community.
D – Diversity	• Provide diverse options. • Attract with colored, different, funny and mainly educative products. • The consumers want to have fun and knowledge (information).
E – Exotic and Environment	• Introduce different national and regional cuisines with exotic characteristics. • This is linked to the desire of fun during meal time. • Gradual valorization of the environment, creating opportunities for actions of sustainability. Products with certificates of environmental preservation (e.g., ISO 14000).
F – Functional	• Add to the products' functional characteristics, such as weight reducers and energizers. "The food will be the medicine".
G – Guarantee	• Honor the commitments with the consumer, such as recalls, or aspects related to quality or safety.
H – Harmony and Healthy	• Equilibrium of the communication, price, products and distribution channels actions. • Products with a lower level of sugar or cholesterol, healthy products, fitness driven products.
I – Innovation and individualization	• Intensify the launch of new products; innovative products, that really represent new solutions. • Target individual products, smaller packages to consumers who live alone.
J – Jobs	• Products that can generate jobs, with brands and stamps for small producers, or "job-friendly product."
L – Labeling	• Label as a very important source ofi nformation.

Table 8.2 (*Continued*)

Resume of the "ABC of the Food Consumer."

Attributes	The opportunities to the companies
M – Meal Solutions	• Offer real solutions to final consumer's desires. • Growth off ood outside home.
N-Nostalgic	• As opposite, offer products that bring back special moments of a generation that compose the target market.
O- Organic	• Growing market segment, people searching for more natural products.
P- Practical and Price	• Practical products for day-to-day use, which have quick preparation time and are easy to open. Variable price is fundamental in the decision's moment.
Q- Quality	• Basic requisite to operate in any market.
R- Reliability	• The food quality, sources and method of preparation have to be reliable in the consumer's mind.
S- Services	• Offer services that really add value to consumer.
T- Tradition and Traceability	• Maintenance of its traditional product line. • Arguments of age and time in the market transmitting trust. • Register all the product's history, from the farm to the final consumer.
U- Uniformity	• Consumer is not willing to accept variations in the product.
V- Value	• Add value to the food, at the lowest cost, bringing the concept of "best value"
W- World-Wide	• Explore the chances to use new media sources.
X- Xenophobia	• Valorization of the domestic jobs and domestic production. Local sourcing
Y- Young	• Some consumers want to be and to feel young, live longer and live healthier.
Z- Zzzzz (Speed)	• The company cannot be slow. Speed is fundamental. Search on web, have new ideas, be alert to the new opportunities, be ahead of competitors, surprise them and the consumers.

Discussion question

How to use the "ABC of food consumer" framework?

Companies could consider issues such as: what opportunities do we see in the future? What arguments, within those listed, do we have? How to use such arguments in a positive way? Does the consumer identify and value this argument in his or her buying decision process? Which of these arguments can be adapted?

Chapter 9

The World of Retailers Brands*

Private labels (brands developed and managed by distributors, retailers and wholesalers) are currently one of the most discussed issues of strategy and have a major impact on the retailers' activities. They are an important tool for the distributor in a very competitive sector and have played different roles in the food industry, ranging from threats to opportunities. The objective of this chapter is to select some important aspects to be considered in relation to supplying food products to be included in a retail or wholesale distributor's private label.

In some countries, the share of private labels at retail has reached over 50% of total food sales. Some retailers even sell only their brands in the stores. The percentage of private label sales within product categories is higher in food and beverages than in other product categories.

What are the possible advantages for a food producer when he decides to sell products to private labels?

I think there are several possible advantages: since communication is carried out by the retailer, lower cost for the company is a first one. There is also a possibility of increasing sales and obtaining scale gains, since the company will have higher occupation of the factory capacity and volume of inputs bought, increasing their power to negotiate with suppliers. The producer can occupy a larger space on the retailers' shelves (this happens when there are two brands from the same factory — the original and the private label).

For a food producer, it could also be easier to obtain credit and funding from banks, since future sales are guaranteed by the supply contract. In product line decisions, it gives the possibility of alternative product lines with different prices and positioning. It is important to note that normally these products do not have

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* First published in *China Daily* (April 20, 2010).

or have few technological innovations. Very few new products are launched as private labels. There is improvement in the relationship with the retailer. An advantage for the food company is the reputation of the retailer, since consumers recognize that being a supplier to a retailer acts as a quality certification. It may also add a possible lower physical distribution cost, and food producers do not need promoters at the point of sale.

Another point that should be considered is that the company may face a possible lower market share for the main company's brand at the store, but a higher market share for the factory (since now it has two brands coming from the factory to the shelves). The company gains experience, and further can supply other retailers, even other industries and, as the retailing sector becomes more global, there is the opportunity to be the global supplier in the category. A final and practical reason to study this proposal is that if one company does not occupy this space, there is another competitor waiting to claim it.

For the retailer: What are advantages of having products with their brands?

First, we need to understand that there are several possible formats: a brand with the name of the retail chain; a retail brand, but with another name and retailer stamp on the product, etc. There is an advantage in vertical chain coordination, having production without production assets and to have possible stock reductions since these products will be managed by the retailer. The retailer also gets higher bargaining power to negotiate with other suppliers, given the flexibility of private labels' price positioning. This strategy adds the possibility of developing store loyalty (identification in the mind of consumers whenever they see the brand at home or in other places). Private labels normally offer higher margins and lead to shelf-space disputes: once one part of the limited space is filled with its own products, it reduces space for other companies to share.

Another possible advantage is that the store's product line gets wider. But the retailer has to coordinate very well and ensure careful quality monitoring because the brand image (the name of the retailer) can be damaged if there are problems.

Since retailers are recognized and in some cases highly admired by consumers, why not extend their brands to the products sold in the stores? Private labels today are of major concern in marketing. How can the food industry fight against these giants? Private labels have increased the competition in the food market and enhanced retailers' bargaining power. Market leaders are threatened by increasing private label sales even within premium segments, and on the other hand, the second or third brands in the market are threatened by cheaper private labels (see Table 9.1).

Table 9.1

A Framework of Possible Advantages for Food Producers and Retailers in Relation to Private Labels
POSSIBLE ADVANTAGES FOR THE FOOD PRODUCER TO ESTABLISH THIS RELATIONSHIP

- Communication is done by the retailer: possibility of lower communication (advertising/product promotion) costs for industry;
- Possibility to increase sales and obtain scale gains: higher occupation of factory capacity and improvement at the inputs buying volume, enhancing negotiation power with suppliers;
- A larger space occupied on the retailer shelves (this happens when there are two brands from the same factory – the original company brand and the private label);
- Possible liberation of products sold on consignment (a request usually made to the food industry by retailers);
- Could be easier to obtain credit and funding by banks, since future sales are guaranteed by the private label supply contract;
- Product mix: possibilities of alternative product lines with different prices and positioning;
- Normally these are products without technological innovation. Hardly any new products are launched as private labels;
- Possible improvement in the relationship with the retailer, receiving better shelf-space, without paying slotting allowances and other retailer taxes;
- Consumers and distributors recognize the company quality (being that particular retailer's supplier of the private label brand works as a quality certification);
- A possible lower physical distribution cost;
- Promoters are not needed at the point of sale;
- A possible lower market share for the main company's brand at the store, but a higher market share for the factory (since now it has two brands coming from the factory at the shelves).
- The industry gets experience and further can supply other retailers, even other industries.
- As the retailing sector becomes more global, there is the opportunity to be the global supplier for the category.
- A final and practical reason to study this proposal is that if one industry does not occupy this space, a competitor will occupy it;

Table 9.1 (*Continued*)

POSSIBLE ADVANTAGES FOR THE RETAILER TO ESTABLISH THIS RELATIONSHIP
➔ First we need to understand several current formats: brands with the name of the retail chain; retail brands, but with another name and retailer stamp on the product. ➔ Each one will show advantages and disadvantages that will not be discussed here; Vertical chain coordination allows production without production assets; ➔ Possible stock reductions since these products will be managed by the industry; ➔ Higher bargaining power to negotiate with other suppliers, given by the flexibility of the private label's price positioning; ➔ Possibility of developing store loyalty (identification in the mind of consumers once they always see the brand at home or in other places); ➔ Possible higher margins; ➔ Increase in pressure for shelf-space disputes, once one part of the limited space is filled with its own products it reduces space for other companies to share; ➔ Store's product line gets wider; ➔ It needs careful quality monitoring because the brand image (the name of the retailer) can be damaged if there are problems;

Source: Author

Discussion question

Apply "Private Labels Framework — PLF" to a specific offer of your company to exercise possible benefits and risks.

Chapter 10

Retailers: The Giants of Chains*

Retailers' numbers of 2010 are impressive. Walmart, the leader, had a whopping 337 billion Euro sales in 15 countries and 8400 stores. Carrefour is the second, with 115 billion Euro sales in 35 countries. The next is Tesco, far behind with 78 billion Euros. Although these numbers are absolutely impressive, since they are even bigger than the GDP of some countries, the concentration of retail has decreased. In 2003, the top 20 retailers had 23.4% of market share, and in 2010 they have around 21% of total sales in the world. What is the reason behind these extraordinary sales?

One explanation is that when comparing the size of retail markets in several countries, the changes are huge. In 2006, the sequence of the largest markets, with countries and billion Euro sales (in brackets) was as follows: US (612), China (328), Japan (297), France (206), India (190), UK (188), Germany (150), Italy (127), Russia (116) and Mexico (112) were the 10 biggest. Using recent numbers to project sales for 2014, the 10 largest markets are expected to be China (761), US (745), India (448), Japan (360), Russia (322), Brazil (284), France (228), UK (198), Germany (168) and Indonesia (167). The reader may note that BRIC countries will have four of the six largest markets. In these emerging countries, retail concentration is smaller, which is a possible explanation.

Given below are some points that I consider as part of an agenda for food retailers, the "giants," for our strategic thinking process (see Table 10.1).

1. To kickstart the thinking process, the subject — private or retailers labels will be discussed. This is definitely one of the most important factors. The penetration of private labels in the percentage of food sales is increasing, and in some chains, mostly in Germany, they may have 60% or 70% penetration. In Switzerland, 47% of market is conquered by private labels and in several other European countries they have more than 30% of market share. Brazil, India,

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* First published in *China Daily* (October 7, 2010).

China and Russia still have less than 10% of private labels share, so we may expect several changes and impacts in the future.

2. Another point, probably linked to the decline in the concentration ratio of retailers is the trend toward the neighborhood concept, with bigger proximity and convenience. Retailers have a multi-format development: hypermarkets, supermarket, membership clubs, convenience and discount stores. But neighborhood stores are increasing toward consumer's trends of buying less and more frequently, closer to home.
3. Information and communications with consumers: Retailers dominate with two valuable assets in their possession: information about consumers (what, who, when, why they buy) and space for interactions and selling. Retailers are selling this information to food companies and will offer more space to food industry to enable such communications inside the stores, representing an increasing source of income. For the industry, since almost 70% of the buying decisions are taken at the point of sales, this strategy represents an opportunity to win the battle over the shopper's preference.
4. Retailers also face new challenges with operations management. These include the permanent reduction of transactions costs, smaller number of suppliers (without increasing dependency) and technology (electronic data interchange systems). This also means better product assortment to maximize shelf space.
5. Services toward convenience are also a trend in the competitive arena for some retailers. Such services include delivery, packaging gifts, offering ready to eat meals (home meal replacement), bakery, butchery, coffee shops and others.
6. There is also a trend toward "green movement" such as saving energy and measuring carbon emissions (these are identified as environment friendly).
7. Some retailers are adopting a strategy of sustainable initiatives of sourcing, using fair trade concepts and others toward an increase in the inclusion of small holders as suppliers, even increasing their transaction costs with this action.
8. Internationalization and global sourcing continues to be a trend and retailers faces the challenges of different cultures. But this also allows retailers to find the best suppliers from all over the globe and bring their products to all stores that source globally.
9. Retailers are also facing stronger competition from different formats like direct sales, online sales, door-to-door distribution systems and an increasing share of consumer expenditure on food service (restaurants, caterers and other formats).
10. Last but not least is a trend toward collective operations withother retailers, sharing and buying structures and centers, stock management, marketing, layout, technology, which maybe a first step toward future mergers of giants in the food industry.

These are the 10 topics of discussions at present, involving the giants of the food chain.

Table 10.1

Agenda for Food Retailers - The Giants.

	Questions	List ideas and opportunities for a company
Private or retailers labels	What changes and impacts in the future can we expect of private labels and retailers?	
Trend toward neighborhood concept	Why is the number of neighborhood stores increasing? What to do to attend to consumer's trends?	
Information and communications	What to do to get the information from retailers? What strategies to use to gain the customer's preference? What kind of communication to use in a point of sale?	
Challenges toward operations management	What to do to reduce transaction costs? What to do to maximize shelf space?	
Services toward convenience	How to offer convenience services?	
"Green movement"	How to save energy and measure carbon emissions?	
Strategy of sustainable initiatives of sourcing	How to include small holders as suppliers?	
Internationalization and global sourcing	How to facing the challenges of cultural differences? How to identify the best from all over the globe?	
Competition from very different formats	How to face competition from different formats?	
Trend toward collective operations	How do collective operations with other retailers?	

Source: Author

Discussion question

It may be useful here to discuss these topics more deeply, specifically issues about the opportunities and their impact toward food chain participants and to your specific company.

Chapter 11

The Evolving Role of Trading Companies in Food Chains*

This chapter aims to discuss the major changes happening in trading companies (here, I will use the acronym TCos) that operate in food and agribusiness chains. The idea here is to raise the facts that are changing, the impacts brought by these facts and leave an open discussion toward which acts should companies that are performing business with TCos adopt. These ideas are based on discussions with leading trading companies and agribusiness specialists. Examples of TCos are Bunge, Cargill, ADM, LDC and others.

A TCo performs several functions in agribusiness markets, but the most important function is performing trade — finding sellers of crops (or what we call sourcing), and sort out the buyers. Different from a broker that operates via a commission, a TCo buys and sells products.

Most of these companies also went backwards (vertical integration) and got involved in processing (industrial phase). They also play an important role in logistics and in financing agribusiness in some markets. Some of the key characteristics of TCos include their access to capital, owning large scale units, fleets of vessels, world-class selling teams etc.

Within the food chain, from agricultural supplies to the final consumer, TCos operate in several ways. Some are more focused at the initial parts of the chain and others move forwards, toward final consumption via branded products.

Several facts are impacting the world of TCos. As new entrants operate in the growing food business, we have a tougher competition in commodities, mostly in grain origination. Thus, some companies are expanding operations through the value chain and others are reinforcing their positions in the trading and/or input business.

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*First published in *China Daily* (March 18, 2013).

Globally, Which Facts Are Influencing the Strategies of TCos?

- Due to increase in consumption, the food trading business is growing rapidly in all parts of the world.
- The world is facing a mid-term challenge of insufficient grains and other commodities origination.
- Concentration of TCos via mergers and acquisitions.
- Increase in transport costs and pressure over logistic resources.
- Rapid rate of internationalization of TCos would enable global operations and sourcing mostly would become bigger. Internatinalization would also help reap advantages of different production cycles of the products in different regions of the world, making possible better usage of logistical and management assets.
- There are new entrants in the traditional TCos' market, like buying groups, selling groups, farmers, cooperatives, crop input dealers and other agro-industry dealers.
- Access to information, one of the key competitive advantages of TCos is now available at a global level via web and other sources at a cheaper cost.
- At the same time that TCos face a growing market, it also faces increasing complexity in governmental regulations (import taxes, export taxes).
- Some Governments are transferring logistic infrastructure to private sector thus creating important challenges and opportunities for TCos.
- Consumer demands towards traceability, safety, security and certifications create more difficulties for the TCos traditional business forms.
- NGOs are putting increasing pressure over TCos operations.
- TCos core business remains grain origination, but to increase this capacity, TCos must offer a complete package of products, like seeds, fertilizers, crop protection and other services to farmers.
- Financial services provide important competitive advantage in markets that lack credit.
- Some TCos are diversifying and moving backwards in the chain, increasing their operations as agri-input dealers offering complete solutions to farmers; with this strategy, they will represent a new marketing channel for crop protection companies but may also increase channel conflict.
- TCos are focusing in marketing products to the end consumer.
- TCos are increasing activities and mostly investments over ports and other logistic infrastructure that have being privatized.
- Some TCos are integrating operations with cooperatives, farmers and fertilizer companies trying to build a lock in strategy to secure grain origination.
- As other important food chain participants, TCos are increasing their demand driven behavior and building marketing activities with other partners.

- The integration of TCos and large farmers/cooperatives can stimulate the development of crop input generics and private label strategies.

We tend to, in order to simplify, characterize trading companies in three major segments (see Table 11.1).
Just to have an idea, the following picture shows some movements of TCos operating in the Brazilian market, so you can understand the complexity of it.
Finally, the tool of this chapter is presented. The major events happening in the world of TCos, the major impacts and what could be the acts for a company that deals with TCos are discussed (see Table 11.2).

Table 11.1

Traditional Tradings	Tradings Moving Upstream	Production / Input Distribution Oriented Companies
➔ Focus on grain and logistic operations ➔ Willing to be collaborative (exchange of information, etc.); ➔ Tend to establish partnerships with other companies in the chain (logistics, technical assistance etc); ➔ Non-exclusive relationship w/ chemical companies; ➔ Opportunities to capture value from dealers; ➔ Companies more likely to invest in input distribution; ➔ Companies more interested in partnerships;	➔ Apparently focusing on consumer brands and foods; ➔ Important companies with logistics; ➔ Need to originate grains for use and global operations; ➔ Tend to establish partnerships with other companies in the chain; ➔ Non-exclusive relationship with chemical companies;	➔ Companies from other business integrating or diversifying to trading operations; ➔ Do not have complete access to logistics and will need partnerships (inputs and structure); ➔ Need to develop new competences; ➔ Those that are producers, usually uses leasing and low investments in fixed assets;

Table 11.2

Facts What is happening	Impacts For Tradings	Acts What Should You Do?
➔ Due to increase in consumption, the food trading business is growing fast in all parts of the world; ➔ World is facing a mid term challenge of insufficient grain and other commodities origination; ➔ Concentration of TCo's via mergers and acquisitions; ➔ Increase in transport costs and pressure over logistic resources; ➔ Fast rate of internationalization of TCo's, global operations and sourcing mostly to become bigger and also to take advantage of the different production cycles of the products in different regions of the world, making possible better usage of logistical and management assets; ➔ New entrants in the traditional TCo's market, like buying groups, selling groups, farmers, Cooperatives, crop input dealers and other agroindustry; ➔ Access to information, one of the key competitive advantages of TCo's is now worldwide available via web and other sources; ➔ At the same time that TCo's face an increasing market, it also faces increasing complexity in Governmental regulations (import taxes, export taxes); ➔ Some Governments are transferring logistic infrastructure to private sector, creating important challenges and opportunities for TCo's; ➔ Consumer demands towards traceability, safety, security and certifications create more difficulties for the TCo's traditional business; ➔ NGO's increasing pressure over TCo's operation.	➔ TCo's core business remains grain origination, but to increase this capacity, TCo's offers to farmers a complete package of products, like seeds, fertilizers, crop protection and other services; ➔ Some TCo's are diversifying and moving backwards in the chain, increasing their operation as agri-input dealers offering complete solutions to farmers; ➔ With this strategy, they will represent a new marketing channel for crop protection companies but also may increase channel conflict; ➔ Other put their focus in final consumer marketing products; ➔ TCo's increasing activities over Ports and other logistic infrastructure that has being privatized; ➔ Some TCo's are integrating operations with coops, farmers and fertilizer companies trying to build a lock in strategy for grain origination; ➔ TCo's are trying to capture value from crop input distribution and also creating channel conflicts and price competition; ➔ As other important food chain participants, TCo's are increasing their demand driven behavior and building closer relationships also with marketing activities; ➔ Also the integration of TCo's and large farmers/coops can stimulate the development of crop input generics and private label strategies;	

Discussion question

Based on the changes discussed in this chapter, the question is how should a company dealing with, selling to or buying from TCos operate? Which strategies could be formulated? What are the major acts (projects) to adapt to this changing environment?

Chapter 12

The New World of Farmers*

This chapter aims to discuss the major changes happening in farming, mostly in the largest farming export countries as the US, Brazil, Argentina among others with relatively different environments like South Africa, India and China. The objective is to raise the facts that are changing, the impacts brought by these facts and leave an open discussion to help develop strategies that companies dealing with farmers should adopt. This chapter is based on discussions with farmers and researchers in four of these countries. Among these countries, probably Brazil is the one that most fits with these trends.

Some of the changing facts and trends are listed here (see also Table 12.1 for the framework).

- There is increasing price volatility in the world of agriculture.
- There are newer risks due to climatic change and governmental regulations.
- Access to technology is becoming critical as technological availability is increasing.
- There are more farms per farmer being managed thus increasing farming concentration.
- Much more information is now available, most of them for free.
- Changes are evident in farming production business models.
- Changes are also evident in farmers behavior, farmers are more professional and informed.
- Farmers are diversifying to other regions and activities, including livestock.
- Farmers are getting more capitalized, but still need credit due to price/cost volatility.
- There is an increase in capital needs and land usage restrictions.
- Urban opportunities for labor are growing.
- Farmers find resources scarce.

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* First published in *China Daily* (March 14, 2013).

These changes in the farmers' environment would impact the food chains:

- Shift of bargaining power toward farmers.
- Farmers are creating increasingly bigger buying groups.
- There is a growing need to build scale as a basic principle.
- Costs of labor are increasing.
- More and more farmers are well informed and are gaining technical and market expertise.
- Increasing costs of adjustments to a more restrictive environmental institutions.
- The issue of good land management is now considered core to being successful.
- Multiple buying attributes demand different approaches to serve farmers with different profiles.
- Price and technical issues are becoming more important considering farmer's buying behavior.
- Information is readily available about suppliers of products and services and also prices of various offers and solutions.
- There are opportunities to develop new credit alternatives and support farmers' working capital needs;
- There is an increase in risk exposure and demand of capital due to the more sophisticated offers existing in the market.
- Use of technology will lead to incredible changes in the future, mostly linked to digital ("cloud") farming.

Based on research done by our team, at least four segments of farmers can be clearly characterized in emerging farming countries like Brazil.

Conventional Farmer (COF): Such farmers would own a farm of small to medium size, would prefer owner-driven management style to run their farms and usually would also own the machinery. They would prefer low chain integration and focus on agriculture, their major business. They were recognized as entrepreneurs in the past when they built their businesses. They are very traditional in their profile and tend to be older in age. Within the conventional farmer, we may add size of the farm and degree of technology usage.

Business-Oriented Agriculture (BOA): These are more medium and large farmers, from familiar to professional management, working mostly on own and leased land and equipment, having some chain integration in trading or acquisition functions, core business is within agriculture and commercialization is more present in nontraditional agricultural areas.

Network Managing Farmers (NMF): Normally large-scale operations, with a professional management, such farmers would own equipment and lease to other farmers. They are very integrated in terms of the network perspective, providing services to other farmers. They achieve economies of scale in inputs, bundling seeds, crop protection, fertilizers, logistics, credit and others. Also most of these companies

Table 12.1

Facts What is happening	Impacts For Your Company	Acts What Should You Do?
➔ Increasing price volatility in the world of agriculture;	➔ Shift of bargain power towards farmers;	
➔ New risks due to climatic change and Governmental regulations;	Farmers are creating increasingly bigger buying groups;	
➔ Access to technology being more crucial and technological availability is increasing;	➔ The need to build scale as a basic principle;	
➔ Increasing farming concentration (more farms per farmer being managed);	➔ Increasing costs of labor; Well informed farmers, increasing in a yearly basis, the technical and market expertise;	
➔ Much more information available, most of them for free;	➔ Increasing costs of adjustments to a more restrictive environmental institutions;	
➔ Changes in farming production business models;	➔ The issue of good land management;	
➔ Changes on farmer's behavior, more professional and informed;	➔ Multiple buying attributes demand different approaches to serve farmers with different profiles;	
➔ Farmer diversification to other regions and activities, including livestock;	➔ Price and technical issues are becoming more important considering farmer's buying behavior;	
➔ Farmers are getting more capitalized, but still need credit due to price/cost volatility;	➔ Information is more available about suppliers of products and services and also prices of the solutions;	
➔ Increase of capital needs and land usage restrictions;	➔ Opportunities to develop new credit alternatives and support farmers' working capital needs;	
➔ Urban opportunities for labor are growing;	➔ Increase of risk exposure and demand of capital due to the offers existing.	
➔ Scarcity of resources needed by farmers to produce.		

are becoming global farming companies, and they tend to base their expansion in long-term land leasing with lower investment in assets.

Farm Transformers and Builders (FTB): These companies or farmers are more common in agricultural frontiers. These companies are opening new areas, transforming land not used or used for pastures toward agriculture, are large-sized, professionally managed and really focusing in real state. So, they will wait for the value increase of the land and then make profits selling the land, probably to the network-managing farmers that go with the profile of land acquisition.

These are four clear segments that can be found in emerging countries' agriculture with focus on expansion of land. To understand these segments and profiles it is important to build linkages with farmers. One aspect is true: a company, to operate with farmers, must have the mindset of "thinking as a farmer" and behave more "grower-centric."

Discussion question

Based on the changes and trends discussed in this chapter, the questions are: What strategies or ideas should be evolved by a company dealing, selling to or buying from farmers? Which of these ideas could be useful? What should be the major acts or projects to adapt to this changing farming environment?

Chapter 13

The World of "Seed, Weed and Bug" Companies within Food Chains*

This chapter aims to discuss the major changes happening in crop input protection and seed companies in food chains, mostly in the largest farming countries (the US, Brazil, Argentina and others). They will be called CPS companies in this chapter.

The objective of this chapter is to raise the facts that are changing, the impacts brought by these facts and leave an open discussion about the acts or strategies that companies operating in the CPS business should perform. We have derived these facts and ideas from our discussions with input suppliers, dealers, cooperatives and researchers in these three cited countries.

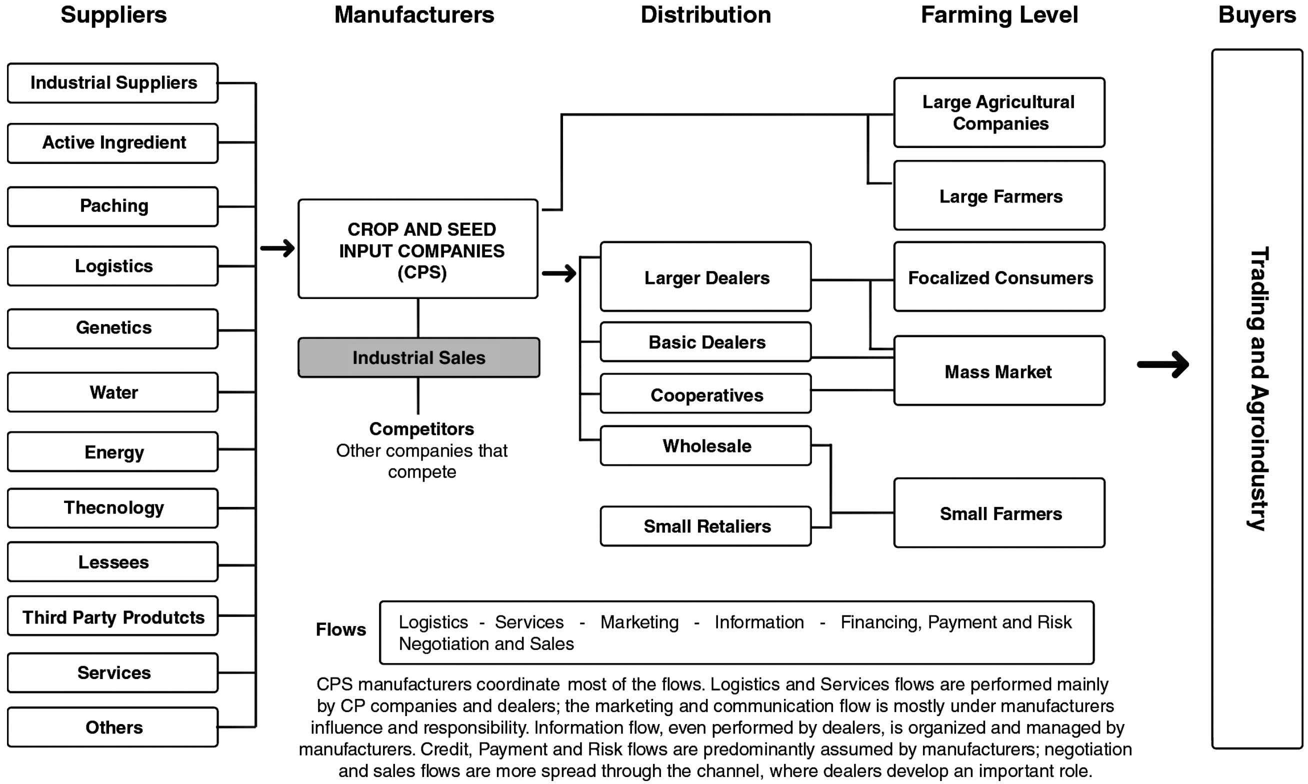
A typical description of the network of these companies is shown in Figure 13.1 to understand their business environments.

When looking at the marketing channels of CPS companies, it is important to highlight dealers and cooperatives. Dealers' development, using the example of a large agricultural producing country (Brazil), can be summarized in four different phases.

Phase 1: In this phase, the industry began as a small, local and sales/technical support-oriented business;
Phase 2: Rapid growth was achieved along with a thrust to good governance practices;
Phase 3: This was a process of rapid consolidation, professionalization and expansion;

*First published in *China Daily* (March 21, 2013).

Figure 13.3 CPS BUSINESS NETWORK



Source: Author.

Phase 4: In this phase, there was shift toward business diversification with credit leverage, internationalization and promotion of some already existing capital companies. Representatives of these four stages can be found operating in the market, but we clearly see an evolution from 1 to 4.

Regarding cooperatives, we must know that these companies are becoming larger and emerging as key players in most food and feed production chains, investing in business diversification and regional expansion.

Cooperatives are also creating consortiums and publicly traded branded companies alone or via joint-ventures, integrating from inputs to trading in food production/distribution. In terms of strategic fit, we clearly see cooperatives adapting to farmers demands and focusing on cost reduction and extending services to farmers in regions where consolidation is not the path, access to cheaper farm inputs and logistical export capabilities in areas where farm consolidation is present.

Taking the example of a large supplier of food (Brazil), we want to address the major facts and trends witnessed in the booming market for CPS industries. By 2013, Brazil is already the largest world market for some of these companies.

Let us review the facts:

- Agriculture is growing, but would need to grow faster to feed the nine billion population, hence the market of CPS is growing and should grow continuously in the next decade mostly in emerging markets (South America, Africa, Asia and Eastern Europe).
- Demand for biotech seeds and specific traits grows within society, such traits mostly allow usage of lower volumes of herbicides, insecticides and fungicides.
- Several products are losing patents.
- Farm production development has in part been supported by cooperatives, partially substituting the insufficient amount of public credit systems. In markets where credit is abundant (the US, for instance) this doesn't happen.
- Barter (delivering CPS products to farmers and being paid with grains) has become an accepted market activity.
- Previously called only Crop Protection Companies (CPC), now we see the growing importance of seed businesses within these companies, with several acquisitions and developments.
- Farmers costs are increasing due to new diseases and plagues; the process of registering new products in some markets face a lot of restrictions from public agencies and NGOs.
- Increasing risk of regulations towards foliar applications and use of airplanes.
- The emergence of generic substitute crop protection products, coming from China or other countries.

- Fertilizers play an important role, the first time growers have a big demand of fertilizers when planning input purchases, however, this means huge amount of credit to farmers and dealers.
- Farmers concentration allows these to leverage financial resources from different sources.
- Large agricultural countries are internationalizing their CPS markets and welcoming new entrants into the industry.
- Dealers that were previously only in CPCs are now diversifying into seeds, fertilizers, services and trading businesses. Some are also strongly involved in farming.
- There is concentration on distribution with a smaller number of big dealers.
- Dealers are expanding to other regions as part of their growth strategy (regional diversification).
- A new movement of internationalization of distribution is taking place.
- Dealers face increased advantages of local presence and closer business relationships with farmers, even developing personal relationships.
- Dealers have access to better information and technology.
- Dealers are more flexible to adapt business models and processes than agri-input companies.
- Trading companies are entering the CPS distribution business in order to guarantee origination.
- Cooperatives are getting larger, more diversified and more vertically integrated in the food chain.
- Cooperatives are expanding to newer areas, some are doing so to compete with other cooperatives in their regions. Some of them are following their farmers, since they are expanding to other frontiers.
- Creation of a centralized cooperatives body, consortium and other alliances to buy together (fertilizers, services, CP, seeds) and even to import directly and export directly (trading) is being implemented.
- Cooperatives are increasingly much more professionally managed.

So what is the impact of the above changes on CPS companies?

These consolidated changes are impacting CPS companies within the food chains:

- Increasing rivalries among CP/Seed companies and generics are leading to disputes among people and related channels thus increasing costs.
- CPS companies tend to focus in traditional strategic pathways:
  (a) low cost (generic, low marketing and relationship, low innovation and copier of value capturing innovations); (b) lock in strategy (offering complete package of solutions and services, innovative, relationship builder, chain manager, and even localized adaptations) or (c) hi tech, focused in generating new technologies.

- Increasing importance of the distribution network to leverage business of agri-input companies and be closer to small and medium size farmers.
  To have a seed portfolio is a fundamental strategy of CPS companies to offer a complete package to farmers, since the seed market — mostly biotech — will have a faster growth rate, demanding innovative solutions. CPS companies are increasing the value of R&D dedicated to seeds and traits.
- Increasing importance of fertilizers and seeds has reduced CP participation on dealers' general business.
- Larger dealers increase difficulties in sustaining exclusive relationships and so may become less dependable than specific CPS companies.
- High control and exclusivity over channels maybe losing effectiveness.
- CPS companies can benefit from fertilizer needs and align with fertilizer companies to provide bundle and barter options, and integrate value chain strategies.
- Dealers expansion in terms of new products and towards new regions are increasing channel conflicts.
- Some of the traditional relationship programs based on rebates for dealers and farmers, built in a different environment, are being challenged.
- Growth of dealers, farmers and cooperatives tend to affect more the pricing policies of CPS companies.
- The entrance of trading companies in the distribution channels of CPS companies can also increase bargaining power and the level of channel conflicts.
- Competition among channels and channel conflicts are increasing.
- There is a shift in the bargaining power with the empowerment of dealers, farmers and coops.
- There is an increasing dependence on major distributors that may offer complete solutions to the farmer.
- There are both challenges and opportunities to leverage business with different relationship approaches.
- Cooperatives are being challenged by informed farmers and their boards to increase purchasing power (buy cheaper).

Discussion question

Based on these facts and impacts, what are the major acts, or projects, a CPS company should implement?

Chapter 14

Global Risks, Financial Crisis, BRIC and Food Companies*

The economic crisis of 2008–2009, in a very simplistic view, is the crisis of the three **C**s (see Figures 14.1 and 14.2). The first **C** is that of credit. Credit was given to consumers in the past few years in a very irresponsible way by financial institutions in several countries, creating an artificial buoyant market. It was an era of financial leverage, financial strategy and financial dominance. Several companies participated in this festival, building up very risky positions, paying salaries and dividends that were out of sync with reality and thus neglecting costs. This festival ended in a severe "hangover", and adjustments were needed.

The second **C** is consumption. It could be said that consumption patterns were irresponsible in many societies in several countries. The abundant offer of credit led a large number of consumers to buy they could ill-afford, resulting in loans for houses, cars, equipment, etc. Anyone could see that this consumption would not fit the monthly budget of families. But the festival was in full swing. Now, it is time to reduce leverage, to sell what was bought, with a lot of loss, since the prices of assets (houses, cars, and others) have gone down.

The third **C** is confidence. The first two **C**s made society lose confidence in the system, in companies and even in governments. Economic recovery is related to confidence. This will not be easy and will differ from country to country. Due to the crisis, where the beginning and end couldn't be demarcated, many consumers with purchasing capacity lost confidence and stopped consumption. With lower sales, markets have shrunk, employment is reduced and all these have led to lower consumption rates, lower sales and higher unemployment with a negative cyclic effect, resulting in an even deeper crisis. The rate of "confidence recovery" is what is going to take the economy out of this crisis. The economic situation will get better far

* First published in *China Daily* (August 12, 2009).

Figure 14.1 The economic crisis 3Cs.

Source: Author.

Figure 14.2 The 3 Cs.

Source: Author.

before the financial situation, since it is not known what is yet to come in terms of bad credits. However, risks of a total financial collapse were mitigated.

In 2009, there was also increasing political instability, i.e., governments with wrong political and economic measures, taking countries to bankruptcy, governments that were thrown and an increasing threat of instability relating to nuclear weapons and others, like missile testing and arming nations. The uncertainty thus created was also transmitted to markets and consumer confidence and became part of the environment in which food chains operate.

It is very important to know that the 2009 world crisis cannot be generalized. It had impacted regions, countries and industries differently. As an example, some industries in Brazil experienced sales records in food, car and housing. Some industries, like heavy equipment, suffered the worst crisis in 20 years. Some areas of countries and some cities suffered more, and others less. The US suffered due to the high leverage of its consumers. Predictions for European recovery were worse than for the Americas and Asia.

Another point that contributed to a faster recovery of the global economic situation was the enormous market power shift in the world. The emergent economies have in some way already changed the world. The BRIC (Brazil, Russia, India and China) group is expected by Goldman Sachs to have a higher GDP than the G7 in 2027. Between 2000 and 2005, the BRIC GDP went from US$ 3.6 trillion toward almost US$ 5 trillion. Brazil had an average growth from 2000 to 2009 of 3.1% per year, and an accumulated variation of 36.3% in the period 2000–2009. China had an incredible growth rate of 9.6% on average and 151% accumulated.

India comes second, with 6.9% on average and 94.6% accumulated and finally, Russia had 5.5% average growth (2000–2009) and 71.2% accumulated (FMI).

The GDP of emerging nations was 11% of the world in 1991, 30% in 2008 and is expected to be 50% by 2030. The world population in 2050 is expected to be 9 billion people, and only 10% will be in the developed nations. In 2009, there were around 200 million people in emerging nations having an income of US$ 3000/year, and this will increase to 2 billion people in 15–20 years. So there is no doubt that a huge shift has happened in the last 10 years. New consumers and new markets are diversifying globally. This shift will gain more and more momentum and will be accelerated by the effects of the internet with faster technology and knowledge transfer.

The GDP of large food consuming countries like China and India continues to grow, contributing to maintenance and even increase in consumption. Almost 60% of the world's economic growth in the period 1999–2010 was in the developing nations, of which the BRIC countries contributed 30%.

Brazil is a country well known as a large food and biofuels exporter. Food is more resilient to crisis since it is the last thing to be cut from a family budget, and in the developed world, food demand elasticity is low. The hit was more on markets of higher value sectors.

Due to several factors, Brazil is not facing this crisis in the way it faced other situations in the past. Part of this is due to the Real Economic Plan, launched in 1994, which brought economic stabilization. As an example, supermarket sales in April 2009 were 6.5% higher than April 2008. The economy was growing around 4–5% per year in the last years. The country has a small share of general global trade (it is only important in terms of food and commodity trade) and was less impacted than other exporting driven economies. A large internal consumption market, tough adjustments in the banking and financial systems toward credit exposure, a high level of international reserves, a situation of energy security and other factors contributed to this position.

To finalize, there are several *messages* for companies. Companies will need to focus and return to their core businesses, make very efficient use of capital, resources and work methodologies even more on planning, collective action and cost structures. Companies will also need to take a very close look at risk monitoring. It is an era of establishing global and more competitive supply chains and an area of strong value propositions for human talents in companies. Finally, it is an era of more conservative leveraging and financing, and for taking advantage of opportunities of consolidation, acquisition, mergers, etc., like several opportunities for cheap asset acquisition globally.

Discussion question

How is your company positioned when compared to the messages raised in the last paragraph of this chapter? How do you see these global risks evolving?

Chapter 15

The Food Crisis Will Be Back*

This chapter deals with a problem that arose in 2007 and part of 2008 and will come back sooner than expected due to several factors. This problem is food demand and as a consequence, food price increase.

There are nine major factors (see Figure 15.1) that are changing and placing pressure on the capacity to supply food to the world, and these are related to economic and financial crisis.

Increase in areas dedicated for growing crops for biofuels: Several countries are starting production of biofuels, in some cases, land allocated for food production is being diverted. Now the tank of the car is a competitor of the stomach. Both want food! Many studies are only linking biofuels to the cause of food inflation, ignoring several other factors, some of which we have known for a long time. Biofuels is not the major problem, since there are very positive results of biofuels being produced in areas together with increases in food production, but this factor should be considered.

The growth of world population, expected to reach 9 billion people in 2050, is not a new factor, but it contributes to a higher need of food production. FAO/ONU estimates that the world will need to produce at least 50% more food in the next 15 years. Projections of future demand for grains (2.2 billion in 2009 to 3.3 billion in 2025), milk (3.4 billion tons in 2009 to 5 billion tons in 2017) and meat are impressive. Just as an example, the MENA (Middle East and North African) countries have a population of around 380 million today, and will have 510 million in 2025.

Economic development and income distribution: One of the most exciting factors is that populated countries such as India, Brazil, Eastern Europe, China, Indonesia, Thailand, South Africa, Argentina and Arabian and African countries among others are bringing millions of new food consumers to the market. Several African

*First published in *China Daily* (July 7, 2009).

The Food Crisis

9 Major Factors

1. Increase in areas dedicated for growing crops for biofuels
2. The growth of world population
3. Economic development and income distribution in populated countries
4. Stronger governmental programs for aid and food consumption
5. Migration and urbanization of society bringing megacities, increasing food consumption and changing consumption habits
6. Oil prices went up from $ 35 USD to $ 140 USD in five years, impacting production and transport costs
7. The dollar devaluation
8. Production shortages (Food Supply)
9. Investments funds operating in futures markets and others in agribusiness

Figure 15.1 The food crisis and its Causes.

Source: Author.

economies have grown by more than 5% per year in the last 5–10 years. Experts in food consumption expect an increase in 50% in food expenditure in China, 78% in India, 40% in developing Asia, Middle East and North Africa, in the next 10 years (Global Demographics Report, 2008). From a proportion of 60%/40% consumption in developed and emerging economies, in 10 years time, food markets will be 50/50%. When one compares China's population with the country's participation in world trade, it is still less than 50%. There is a lot to come.

Stronger governmental programs: Programs for aid and food consumption, such as the one done in Brazil reaching 10 million families and 40 million people, can help new consumers coming to the food markets. Just as an example, the market for sausages in Brazil went from US$0.5 billion in 2003 to US$1 billion in 2007. Thailand has 10 million people receiving a check of US$58 per month. These are just some examples, happening all over the world. Several signs are present, and they are not being captured in an adequate way by major economists.

Migration and urbanization: These phenomena are creating mega-cities, increasing food consumption and changing consumption habits toward less grains, and more proteins (using more grain as feed in the animal production process); consumption is getting more customized, more sophisticated and more energy consuming. There is also a huge impact here, when you consider that in several countries, 50% of the population is still in rural areas, and moving to cities. A study estimates that around 350 million people in China will move to cities by 2025. This will require five million buildings, increased demand for computers, televisions, air conditioners and new food consumption habits (demand equivalent to 10 times the city of New York).

Oil prices: The prices went up from US$35 to US$140 in five years, impacting production and transport costs. It is rising again, and oil is now not restricted for use only in transportation. It is also used in several other industries, like plastics, whose consumption levels have increased. Oil may be stable around US$70–US$80 a barrel, and with oil prices up again, several possibilities and projects for biofuels gain economic incentives, increasing pressure on land in the case of corn and other grains. China had 65 million cars running in 2008 and is expected to have 150 million by 2020, consuming 250 million tons of gas per year.

Dollar devaluation: The devaluation that happened in the last years also had its part in contributing to higher commodity prices, fixed in US dollars.

Production shortages (food supply): Farm/production shortages due to lower margins, climate, droughts and diseases are a major concern. Due to the credit crunch (lack of financing) and high price fluctuations, there was a downturn in prices, the criteria of financial institutions became strict and, together with losses of bad hedging by agribusiness companies, resulted in loss of confidence. As a consequence, there were higher risks for planted areas and yields, hedging prices got worsened (less hedging), and consequently, there was more uncertainty and lack of confidence in long-term contracts. This may bring lower productivity, lower inventories, lower margins and farmers switching to cheaper crops to produce. Some exporting countries will become importers. Within the ambit of the aforementioned, there is always the concern of availability of water and costs of water and also the unknown impact of global climate change in crop productivity in the future, which is of major concern.

Investment funds: These operate in futures markets and in agri-business. This increased with lower interest rates in several countries. It is known that some of these funds have been replaced by strategic investors with conservative financing mechanisms, but there is still a movement of funds toward food commodities. This is also increasing consolidation.

Chapter 16

Strategies for Solving the Food Inflation Problem

There are two ways to solve the challenges associated with expected food demand/inflation. One is going back to an increase in protectionism, stimulating noncompetitive areas to produce in an "economically artificial environment" and returning to the policies of "self-sufficiency" of war times. The other is moving toward growth, global trade and inclusion. Here, a 10-point agenda (see Table 16.1) is offered to governments and international organizations as a solution to solve the upcoming food demand and inflation problem, which could be the right avenue to follow in providing long-term results, peace, fair income distribution and inclusion. They will be addressed in sequence.

Promote horizontal expansion in production into new areas, with environmental sustainability. This expansion can be done in several countries (South America uses only 25% of its capacity), in all continents, in millions of hectares that today are poorly used. In Brazil, several studies by recognized institutions confirm the existence of more than 100 million hectares that can be utilized for food and biofuels production, without touching fragile systems and mostly growing over degraded pastures. These production and land expansions, if stimulated with sustainable contracts, will bring inclusion in farming, new entrepreneurs, job creations in less developed nations, fair income distribution and economic development, even having a positive impact in democracy. Land costs are getting higher since several pension funds are looking for security and thus buying land. Recently, a fund of US$ 800 million in Arabian countries was dedicated to land buying and food security, having South American and African countries as targets (*Financial Times*). There have been several efforts by China and other countries in building such supply chains abroad. This is a perfect match of investments to achieve development.

Increase productivity or create vertical expansions (more production in areas that are already being utilized). Several hectares in South America, in Africa, in Asia, and even in developed nations could produce more yields if more and better technologies were

Table 16.1

The Food Demand Model

Nine Causes of Food Prices Increase	Ten Proposed Solutions
→ Biofuels	→ Sustainable horizontal expansion toward new areas
→ Population growth	→ Vertical expansion with more technology (high tech)
→ Income distribution and wealth in populated countries	→ Reduction in food taxes and other protections
→ Governmental programs for food distribution	→ Investments in international logistics platform
→ Urbanization of population and mega-cities	→ Use the best sources for biofuels production
→ Oil prices impact on production and transportation costs	→ Reduction in transaction costs in food chains
→ Production shortages due to adverse climate and financial conditions, water and climate change impacts	→ New-generation fertilizers
→ Dollar devaluation	→ Sustainable supply contracts to farmers
→ Investment funds operating in commodities	→ Innovations (genetics and others)
	→ Consumption behavior for less energy consumption

Source: Author

used and associated investments were made. If one compares the amount of corn a US farmer can generate in tons per acre, it is two or even three times higher than the average production of Brazil and other countries. With irrigation, some farms on the tropics can generate three crops per year. Major research and investments should be dedicated to these improvements.

Reduce food import taxes and other import barriers and protections. Food prices in some countries are artificially inflated due to import taxes and other kinds of protection that damage international trade, markets and growth. As an example, beef in the European Union costs four or five times higher than the same quality beef in an Argentinean or Brazilian store of the same European retailer. The argument mostly used is that lowering protection will damage local agriculture of less developed countries. It must be assumed now that the new level of commodity prices may allow local agriculture to be competitive. Several other internal taxes on food can also be reduced by local governments, reducing consumer prices. Additionally, the more than US$330 billion spent annually by OECD members in agricultural subsidies is putting more pressure on prices while undermining more cost-efficient food production in naturally competitive countries.

Invest in international logistics in order to reduce food costs. Some grain-producing countries suffer from extremely poor logistics. Governments should invest and society should work harder to reform institutions in order to facilitate public–private partnerships to privatize ports, roads and other food distribution and logistics equipment to increase the flow volumes and reduce energy consumption.

Reduce transaction costs. Major international food chains are poorly coordinated and have several redundancies, poor use of assets, corruption, opportunism and other inefficiencies, which are largely responsible for losses. This increases the costs and maintenance of nonvalue-adding companies, agents, etc., thereby impacting food prices. Institutional reforms, as proposed by Douglass North, are the solution here. Also, more efficient cooperatives, producer pools, and other collective actions should gain strength to reduce redundancies and increase producer organization and bargaining power.

Use the best sources for biofuels, in a totally sustainable way. The example of Brazil could be better analyzed, where ethanol has been produced for more than 35 years, on 3.5 million hectares of cane, using only 1% of the country's arable land and supplying 52% of fuel transport consumption, with no impact on food production. The growth of food production and biofuels together in the state of São Paulo (the major area of sugarcane growth) in the last 10 years shows that it is possible to combine both food and biofuel crops production. Crops for biofuels that have better yields and do not compete with food chains should be prioritized in the global development of biofuels. The energy balance of sugar cane ethanol is 4.5 times better than that of ethanol produced from sugar beet or wheat, and almost seven times better than ethanol produced from corn.

Invest in a new generation of fertilizers. It is important to produce fertilizers from alternative sources, plants that can absorb more energy of the sun, more recycling of by-products as sources of fertilizers would mitigate the huge risk and cost of fertilizers in the future. Fertilizers are among the most important and expensive inputs for agriculture, and in the present times when the yield must be improved, its importance grows even bigger.

Work more toward sustainable supply contracts for farmers, with integrated sustainable investments and projects. It is of fundamental importance that margins and incomes should be better distributed in food chains, reaching farmers all over the world. Price stimulus is the best economic incentive for growth in production with technology. It is well known and studied how concentration in several food industries and retailing retains margins that could be better distributed to farmers thus increasing economic development and bringing a very positive externality to several regions.

Stimulate research and investments in innovation from all possible sources. This should be pursued mostly in genetics, in order to find new solutions for food and biofuels production and consumption. In trying to solve the sustainability equation, seeds are a problem today, due to shortages. Public investments in agricultural research and development have decreased considerably in the past couple of decades, resulting in a yield-growth slowdown, disabling production and the ability to keep up with rising consumption. Since trust in biotechnology is increasing in society, bringing a new era of acceptance, research should receive more attention.

Slowly work to change consumption habits in both food and fuel. We must realize that supporting nine billion people in the planet in a sustainable manner will present several challenges. Hence, behavior of people should gradually be changed toward sustainability. Food is overconsumed in several parts of the world, bringing with it obesity — a major health concern. Another area of inefficient consumption is fuel. Investments need to be made in resourceful public transportation. This is a major challenge in many countries. For example, Barcelona has implemented a well-planned public biking system, which is an excellent example of a working solution. Table 16.1 summarizes the causes and the proposed solutions.

Discussion question (Chapters 15 and 16)

Do you know of any other additional points that could be termed as causes and solutions to the food demand model? How would you rank these causes and solutions according to their importance?

Chapter 17

Bridging the Food Dilemma: The Case of China and Brazil*

Trade flows between China and Latin American countries increased from US$10 billion in 2000 to US$140 billion in 2008. China and Brazil have strong complementarities and a long history of peace and acceptance. There is a huge Chinese community living in Brazil, which is well integrated with Brazil's multiracial and multicultural society. The Chinese are recognized as hard workers, setting up businesses in Brazil and contributing to the economy in the last 50 years.

China is world's largest developing nation, with the highest improvement in living standards in the world. In this very positive scenario of development, China will face problems in securing food supply for its own growing, richer urban society. These problems could be related to costs, clean water, water availability, soil conditions, land, environment and others. Brazil, on the other hand, has 850 million hectares of land. There are 350 million hectares of arable land, and of these, only 70 million are being used for crops; 200 million are used for pastures, and another 80 million is new land to be conquered. In sum, there are 100 million hectares that could be converted to agriculture, in a sustainable way.

In the coming years, Brazil has an opportunity to be the most important partner to supply food and biofuels to China, in the food security aspect. Just as an example, soybean exports from Brazil to China grew by 27% from 2008 to 2009. Brazil's participation in total China's imports increased from 0.7% in 2003 to almost 3% in 2009, and it is expected to grow faster due to imports of poultry, beef and other protein sources and food, which are in the nascent stages. The risks of producing food in Brazil are very low, almost zero, since the country is a large food producer and exporter, with plenty of land and food in the internal market, reducing risks of political or institutional changes, like banning exports or expropriating assets as seen

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* First published in *China Daily* (August 31, 2009).

in several other countries. It is an open market for Chinese companies to produce food in Brazil for export to China, in a safe way.

Another great opportunity is to have common investments to enable Brazil to help China to address environmental concerns. Brazil has one of the cleanest energy matrices in the world. China has problems in water supply, and of its 600 million urban inhabitants, less than 5% have access to clean air that is in accordance with European safety standards. Again it is important to see the ethanol program, which is a positive example. About 90% of all new Brazilian cars are flexi-fuel, and of the fuel consumed in the country, ethanol has 52% against 48% of gasoline. By 2015, 80% of the internal market for fuels will be ethanol, produced in a sustainable way, from sugarcane. The area used to supply 52% of the fuel today corresponds to only 1% of the arable land. There are opportunities to produce ethanol to add to Chinese gasoline (E5% to E15%), contributing to a strong reduction in pollution in China (65% of total pollutants in the country come from auto emissions). China is also a producer of several products needed for Brazilian development as China has technology, scale and expertise.

As Brazil lacks resources for investment, this is where China may come in and participate. Logistics in Brazil are still a huge concern, mostly in grain production areas, increasing the cost of commodities and food. There are opportunities in roads, ports, airports, storage capacity, pipelines for ethanol, and several other investments. Another challenge, where Brazil is moving very rapidly, is to adapt food production toward international standards of sustainability.

China and Brazil have a role together in the future, and this is very clear. China will be the world leader and the most important economy in a few years. It has a history with Brazil, of common respect and admiration. It is a perfect match. The countries should immediately work on topics related to one major question "how to enhance future food trade with a win-win relationship?" The cooperation must include linking institutions toward a better future, doing research together, linking the business communities in order to start and improve businesses, common investments and linking universities in interchange programs. Basically, place people of both countries in contact toward the development of a new world, with economic, environmental, human sustainability and with tolerance toward differences. Table 17.1 summarizes the Food Bridge Concept.

b1651 The Future of Food Business (2nd Edition) b1651_Ch-17 27 Mar 2014 9:34 AM

Table 17.1

"The Food Bridge Concept."

Brazil	China
➔ Lacks investment capacity and logistics.	➔ Has the largest capacity for international investments and logistics.
➔ Can rapidly expand food production.	➔ Faces an incredible growth of income and urbanization and will need more food.
➔ Has several possibilities for international investments.	➔ Has a large number of investors to invest and take advantage of opportunities in Brazil.
➔ Has low population/land availability ratio, and around 100 million hectares available for development. It's the world's largest exporter of beef, poultry, soybeans, juices, sugar, biofuels, coffee and in 5 - 10 years will be the major food exporter of the most important food chains.	➔ Low levels of new land available for food production and is thinking of investing abroad to guarantee food security. Scarcity of water for agriculture in some areas, and environmental pressures.
➔ Sufficient supply of water for agriculture.	➔ In 5 - 10 years will need quantities of food from abroad and most of this food will come from Brazil.
➔ Is a net producer and exporter of the most efficient biofuel, the sugarcane-based ethanol, used as E100 and E25 (100% ethanol cars and 25% ethanol in gasoline).	➔ Will need to expand biofuels production and usage toward a cleaner environment, adding biofuels to gasoline (E5 or E10%) and other. These biofuels can be produced by Chinese investments in Brazil and Africa.
➔ Has one of the highest mixed-raced populations in the world and a long-term acceptance of the Chinese community living in Brazil.	➔ Has a large Chinese community living in Brazil for several years.
➔ The federal government has given great importance to relations with China.	➔ Very good relationship on a federal level with Brazil.

Source: Author

Discussion question

How do you evaluate the "Food Bridge Concept"? Would you add or remove points to consider?

Chapter 18

Interesting Differences of Developed and Emerging Economies*

This chapter has the objective of classifying some differences seen in emerging and developed economies. How can these countries be generally characterized, what are the major concerns and specificities and the huge differences that exist, probably the speed of growth and development being the most important.

The world economy can be understood as several markets, inter-communicated and linked in different blocks, with totally different dynamics. The world markets are a much more complex environment. In this context, it is necessary to evaluate and differentiate the present economic profiles of these markets. These profiles are dynamic and change with the fast changing political, economic, social and technological environments.

Nowadays, markets can be divided into two major groups: Developed and mature markets represented by countries belonging to the European Union, Canada, US, Japan, South Korea, and those under development, called emerging economies or countries, such as Brazil, India, China, Russia, South Africa (the so-called BRICS) and several other Asian, African, Eastern European and Latin American economies.

It is quite a challenge, but I try here to establish some points of comparison and to classify what is going on in these two categories. Several problems arise from this comparison, since inside each block there are several differences and even levels of development that cannot be compared, but to generalize, these characteristics might be useful to settle a "go to market strategy."

The analyzed aspects are listed below, and after that, Table 18.1 with the analysis summarizes the differences between the various aspects in developed and emerging economies: gross domestic product (GDP); size of population; degree of

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* First published in *China Daily* (December 19, 2012).

Table 18.1

"Major Differences Among Developed and Emerging Economies"

Developed Countries	Parameter of Analysis	Emerging Countries
→ Stable	GDP	→ Growing
→ Relatively stable	Population	→ Growing
→ Relatively stable	Urbanization of population	→ Urbanization growing fast and emerging of mega-cities
→ Mature or declining	Food markets	→ Sales are booming
→ Small effect on consumption	Income growth and income distribution	→ Huge impact on consumption (still a high percentage of income spent on food)
→ Well educated	Consumer profile	→ Being educated
→ More homogenous group	Countries characteristics	→ Different segments of emerging economies, difficult to agregate
→ High quality and sophisticated markets	Quality (food safety) in markets	→ High level of informal markets and food safety under construction
→ High percentage of consumption (expenditure) in foodservice	Food service share in food consumption	→ Smaller participation of expenditure in food service
→ Quite stable	Retail systems	→ In huge transformation
→ Limited possibility	Expansion of commodity production	→ High possibility
→ High sensitivity of population and severe laws, recycling and consciousness	Environment and preservation issues	→ Low sensitivity of population and regulation being built
→ Growing faster	Adoption of biofuels	→ Low
→ Healthy, veggies, fruits, organics, among others	Consumption directed to:	→ Quantity (protein)
→ Developed and mature	Logistics and transport systems	→ Early stage of development, immature
→ Consolidated, respected and well known	Institutional environment	→ Being built, with high transaction costs

Source: Author

urbanization; maturity of food markets; impact of income growth and distribution; consumer profile; groups of countries profiles; quality (food safety) in markets; participation (share) of food service; status of retail systems; expansion of commodity production possibilities; environment and preservation issues; adoption of biofuels; profile of consumption; maturity of logistics and infrastructure; institutional environment.

An analysis of this table shows that developed markets are more mature and stable, have predictable characteristics with very well established aspects, for example, logistics, retail and institutional environment. This maturity is reflected in the population that tends to search for differentiated products and services, featuring various niches as those seeking healthy products, environmental and social trends, among others.

Discussion question

Evaluate the major differences and list new parameters that could be added? How should developed and emerging countries be characterized?

Chapter 19

How Can Chinese Companies Feed the World?*

At a recent international food and agribusiness congress in Shanghai, there was a debate about the ability of local Chinese food companies to become international companies in the coming years. That means departing from their activities in China toward a more global presence, like the major food multinational corporations.

At the root of the issue are three key matters: why Chinese food companies are not yet internationalized to supply food from China to the world; the major difficulties that Chinese investment faces abroad; and the internationalization opportunities for Chinese companies in this new era where food and biofuels will be important trade topics in the coming years.

First, it must be recognized that China has several brands that could become international and as that happens the complexity of international operations would need to be learned. There has been a concerted push to innovate, and in several areas Chinese products are regarded as being of very high quality.

These are companies that take advantage of a strong Chinese domestic market and are mostly engineering-led companies with the ability to invest in key assets, maintaining their core business with a global leadership team, structures and strategies. It's a beautiful story: taking advantage of economies of scale and scope, these Chinese companies have gone outside China and are having some success.

But an intriguing question arises after studying the success of engineering companies and others that have gone global: Why this internationalization does not happen with Chinese food companies? That this is so becomes clear when you consider that none of the world's 25 largest food transnational companies is Chinese.

It is argued that the Chinese food industry is handicapped by low investment in research and development, by issues of food safety and quality in the production

* First published in *China Daily* (August 10, 2012).

process, by the fact that there are no recognized large brands outside China, and by difficulties in marketing due to a general perception that its brands are of poor quality.

Although the Chinese government can subsidize this internationalization strategy, other difficulties stand in the way of Chinese food companies wanting to go global: the lack of water, soil, uneven development of infrastructure, production yields, the structure of rural society, lack of agribusiness talent for large-scale operations and the huge internal market that would consume what these companies produce.

The list of difficulties is long, but this does not mean Chinese food companies cannot go global. It is only a matter of time, and I see two major groups with the best chances of achieving this.

The first group consists of food companies that produce specialties or other products where the internal market can be easily supplied and there is surplus to export. These are mostly companies whose products do not demand large amounts of soil, water and other resources. They may be among the first to go global. The second group consists of Chinese companies that produce and mostly source food in other parts of the world, and who market their products worldwide, first bringing them to the large Chinese internal market.

For the moment, it is clear that Chinese agricultural and food business investment overseas faces many hurdles. First, management styles and the global mindset, particularly considering language and culture, present difficulties for Chinese.

Next, there may be a perception by local communities that Chinese investment represents a "new colonialism," that it results in the extraction of local resources with no discernible benefit to the local community.

Chinese food companies may also find it difficult to understand the local institutional environment and the complexity of laws and regulations, resulting in higher costs.

Another issue is protectionism in some markets, which will close the door to Chinese investment.

There are at least four more problems: China's insurance system does not offer enough protection against the risks of international investment by Chinese food companies or Chinese entrepreneurs; China's tax policies do not encourage such investments; some countries see it as a labor export strategy for China and reject it, arguing that all the labor force will be Chinese; and finally Chinese companies fail to work together which prevents them from learning each other's failures and avoid pitfalls.

Although these hurdles need to be negotiated, there is every opportunity for Chinese food companies to become global, particularly because in several parts of the world there is an abundance of natural resources to expand food production but the capital to do so is lacking. In this regard, Brazil, Argentina and African countries come to mind. Brazil, for example, is highly receptive to Chinese investment and the institutional framework for this, to some extent, is already in place.

With China's large and growing internal food market, we cannot expect that, in general, it would be a large supplier of food to the world; it will, however, continue to be a large food importer. But in some specific markets, food produced in China could reach the world, and Chinese food companies have a good chance of becoming international food exporters.

There is a large opportunity for Chinese companies to source food in several parts of the world, mostly in the countries that have natural resources, thus making the companies real food multinationals. This could be done by acquisitions or by building from the ground up.

So confident am I that this will happen that I am ready to bet that by 2020 at least three Chinese companies will figure among the world's 25 largest multinational food corporations.

Discussion question:

What are your perceptions about internationalization of Chinese food companies? List the opportunities that would arise for your organization from this internationalization?

Chapter 20

Structural Challenges in Chinese Food and Meat Chains*

The objective of this analysis is to share with *China Daily* readers a recent workshop that I had the opportunity to coordinate in Shanghai, on June 12, during the events to launch my new Chinese book "*The World on the Tongue*," by Central Compilation and Translation Press.

In this event, around 15 of the largest pork and poultry producers and processors operating in China stood for around five hours debating the future of the industry. It was a very interesting debate with enthusiastic people deliberating about a brilliant future.

This article summarizes the good news and opportunities, mostly related to the worldwide growth of food markets and also raises the major challenges for industries operating in the meat markets in China.

First, there are several opportunities open for growth in the Chinese meat markets. Projections show that internal markets in 2030 will comprise around 1.5 billion consumers and urbanization will be around 70%, bringing incredible changes in consumption patterns.

In the next 20 years, income is expected to grow at an average of 5% to 8% per year, so with this, GDP per capita in China would rise from US$5,500 to US$15,000 in 2030. The major impact of this fact is that there would be an increase of almost 15 kg in the per-capita consumption of meat by 2030, lifting from 57.3 kg to almost 70 kg per person. It is an incredible development of markets, bringing a lot of opportunities and also challenges.

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* First published in *China Daily* (June 29, 2012).

In order to face this growth and accomplish new macro-environmental changes, several challenges were raised by these executives and will be summarized below.

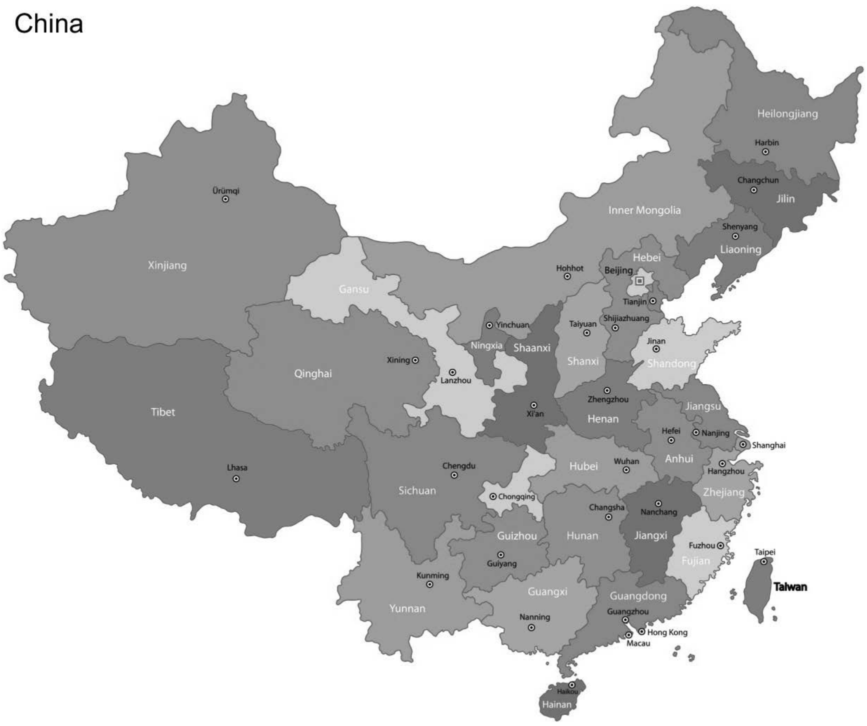
(a) Human resources management, both in availability of trained employees and to face the cost increase of labor, due to higher salaries and benefits, estimated in more than 30%.
(b) Adaptation to new governmental regulations towards food security in China will increase production costs and regulations regarding feeding the animals may reduce the amount of products used as feed.
(c) Government policies towards improvement of small and medium size companies will also change the industry in the near future, since some of these are low scale and have low productivity;
(d) Government policies towards usage of land in China will challenge the growth of this industry mostly because of the growth of municipalities and Chinese companies will need to expand internationally to secure supply chains.
(e) Diseases would spread due to the density of production bringing risks of severe epidemics and frequent outbreaks.
(f) Cross regional development of logistics toward inlands of China, where there is a growing market and production.
(g) How to adjust the strategy to this fast growth needed together with promoting sustainability, due to an increase in environmental concerns and media coverage, will be a challenge.
(h) The need to innovate is also a challenge. Innovations that increase profitability in the production systems via promoting vigorous scientific and technological projects are required.
(i) Information management, mostly in how to follow the market information and select the most relevant for decision-making.
(j) The need to face global competition and opening of markets.
(k) Price volatility of grains may increase the need to develop long-term procurement strategies.
(l) Gradual improvement of institutional environment in China.
(m) The need to improve financial support for new investments.
(n) Improvements in collective actions, with better chain organization and coordination.
(o) Improvements in management capacity to understand and adapt to the new environment.

As seen, the major challenges raised by these executives are tough but they appear in a market that is growing, so it is a question of adjustments. The major dilemmas will be to localize or globalize production, to focus or to diversify towards different food business, to promote growth via public or private companies and the capacity to understand and adapt.

As moderator, I received a last question about globalization and the future positioning of Brazil in the grain and meat industries. The question if Chinese investments in Brazil to complement the production needed to face the demand would be welcome, and, finally, if it would require buying land abroad. My opinion, shared more than two years ago with *China Daily* readers is that this is what I called "the food bridge," meaning food being produced in Brazil and supplied to China, as the major trade in 2020.

There are plenty of investment opportunities for Chinese grain and meat companies in Brazil and I think the most interesting investments would be in origination (industries for processing with networks of contracted suppliers) and not in land, which requires higher volume of resources and faces restrictions.

There is a lot to come in the near future for Chinese pork and poultry companies and this article summarized the discussions of this workshop.



Discussion question

How would these challenges evolve in the future? How will these challenges affect your organization bringing opportunities and threats?

Chapter 21

An Incredible Journey through India*

Almost two weeks of traveling in four big cities (Mumbai, Hyderabad, Chennai and Delhi) and several rural villages of India is an incredible and unforgettable experience. My learning was present in every street, road, building, sightseeing, travelling in taxis, or whatever interactions with its people and geography.

The consumption details of this very diverse society were perceived at every meal, either taken in the luxury Taj Hotel's restaurants, in booming fast foods or in small villages, with farmers. After this visit, I came back convinced that in several places of the world we will see changes in the next 10–20 years, but seems to me that India will have the leading speed of changes. In India, definitely things will happen.

This article has three parts, first to address some socio-economic numbers and impressions, second to talk about agricultural development and challenges, and third to share the development agenda learned and discussed.

Walking on the streets feeling that you are in a country of more than 1.2 billion inhabitants place, that grows almost two million people per month, or 20 million in a year, or one South Africa each two and a half years, or one Brazil each 10 years or even… one USA in 15 years is… unique.

Being the world's fourth largest economy based on purchasing power parity and growing from 6% to 10% per year in terms of GDP, we may imagine that in 10 years from now we will have one more India in place.

It is a large economy of still poor people, having very unusual consumption patterns. This characteristic takes us to lot of people consuming products occasionally or in small portions. It is, for most of its population, a business with low margins but large volumes. India means a large aggregation of small parts.

*First published in *China Daily* (April 10, 2013).

It is quite a heterogeneous society, a unique cocktail, difficult to be found elsewhere. And this heterogeneity seems to be increasing due to the internationalization of Indian society. We see the mix of local diverse culture with occidental culture coming in with Indian students returning back from experiences abroad, fast food chains moving in, web access and other facts.

India has gone through an impressive process of information and technology, so people are connected, mostly the younger generations from all social classes. An Indian economist told that 40% of the population has access to toilets but 50% to mobile phones. They are typing all the time and talking.

It is a well-known country for its business process outsourcing, for building up smart solutions, a service driven society, which definitely changes the way companies do business, offer services or charge for guarantees. India has interesting small business models, from people dedicated to cook, going to houses, dedicated to laundry, clothing, whatever.

India is also famous for its micro-credit initiatives and huge programs of financial inclusion using the bank system, based on technology platforms.

My taxi drivers during these days showed incredible performance in this unique experience of driving through the streets and roads in India. I can't understand why India doesn't have Formula 1 champions. The culture of the "horn" is a nice way to manage a mess that is in some way organized. They were always nice people (of course, sometimes with poor English) and offered creative free service. Whenever I needed them, they told me that I should phone, they wouldn't take the call and would come to the place to pick me up. This is the "missed call" movement. All for free!

I could see some efforts of the government in reducing taxes, still very high, and also I listened to several critics coming from farmers and business people due to the large size of governments and difficulties to cut costs and also a propensity to corruption. I perceived in youth a large disappointment with the government, they are frustrated with the growing cost of living, levels of corruption, delay in judicial decisions, less infrastructure investments among others. There is a common perception that the government doesn't follow the needs of the youth, and this is not a good indicator. Being from Brazil, this is nothing new for me!

The growth and development challenge can be smelt in every breath. Almost 400 million people in India survive with a daily income of US$1.25. It is a country with still more than 60% of the population in rural areas, which is a huge challenge. The incredible information that Mumbai grows by 400,000 people per year was given to me.

But it was also said that the major urbanization changes are happening in the enormous amount of 50–100 thousand people cities, much more manageable. The major impact of urbanization is the change in consumption habits. While in the US fast food sector grows 4% per year, in India it is growing 35% per year. Specialists say that fast food market was of US$1 billion in 2010, and may approach US$3 billion in 2015, when McDonalds plans to have 500 outlets, Yum! plans to expand 500 new units of Pizza Hut, Taco Bell and KFC and Domino's Pizza also expanding its 500 units.

Another topic that deserves our attention is that India is a very young country. While in China we have the policy of one child per couple, India grows fast and has today almost 600 million people with ages below 25 and 225 million among 10 to 20 years. India will have in the future a huge amount of people at working ages, and this is a very competitive factor. The decision here is crucial, not only for India, but for several countries like Brazil.

To transform this immense youth in what I call a cargo truck, to help carry the society forward, than to leave them without support and transform them in cargo to be transported by others, is probably the major challenge of these countries.

In 2013, with several improvement suggestions, India is launching the "food security bill," to create obligations for the State to guarantee food to every person that lacks resources to purchase the minimum amount of food for a healthy life. This fact will bring huge impact in food chains and food imports, since it means investments of federal budget in the food markets. India is still far behind the development China had in reducing poverty and this government regulation can really alter the future of India, solving problems of poverty and giving conditions to a much more competitive society in the future.

This is India, a country that gives several important signals to international society.

In this second part about India, I give some information about agriculture, collected in two weeks of visits and interviews and raise some of the topics that make part of the strategic agribusiness agenda. As a first impression, Indians have a passion to own land and this land is what will be passed to their children. Indians love children too!

India has a large proportion of arable land, 180 million hectares, almost 60% of the land existing (330 million hectares of surface) and produces the second largest crop in the world. It is a very challenging land structure, since almost 75% of the land is in properties of less than 5 ha, and as average, one to two hectares per farming family. Imagine land ownership in the future, dividing this area among children.

Agriculture is strongly dependent on the monsoon and the amount of rain that it will bring. The monsoon is directly responsible for the amount of income available in a particular year.

We can find a great diversity of climates, allowing several products to be produced. India, after China, is the second largest producer of rice and wheat, fruits and vegetables. Rice is a major crop, occupying 44 million hectares and producing more than 90 million tons. Wheat also is an important product, with more than 80 million tons per year. Corn occupies 8 million hectares. India is among the world's five largest producers of 80% of the crops (agriculture produce items).

Agriculture has seen a huge development due to adoption of technology. Grain production jumped from 50 million tons in 1950 to more than 250 million tons in 2012. Irrigated area in India increased from around 20 million ha in 1950 to

65 million in 2010. By 2012, around 17% of India's agricultural output is exported and it still is the primary occupation of 52% of local population. But due to this population growth, per capita availability of grains fell 10 kg in ten years.

Several other changes can be seen. Farmland management is also concentrating, with the growth of land lease and more efforts to build scale, probably the biggest challenge in India's agriculture.

Due to the industrial and services business growth, as in most countries facing urban development, it is only natural that agricultural share in GDP has declined, from 56% in 1950 to 14% in 2012. There is a movement of a more feminization of agriculture and Brazil is also an example of this issue.

Several challenges face the fast development of agriculture in India. In the innovation process, according to companies interviewed, the regulatory systems are an issue, long time is taken to register products. The challenge of urban areas advancing over farming areas and labor costs increased 50% in the last two years since the service sector is attracting people previously available for agriculture. Although India has a lot of water, it is also becoming an issue, due to pollution, usage by its growing population and other challenges.

India will also have to develop food safety (quality) and traceability, environmental protection laws, improve labor laws that definitely will increase its production cost in the future, like what I have seen in Brazil in the last 10 years.

Productivity of Indian agriculture is still very low and this means that several growth possibilities are possible. In China, the average size of properties is half the size of India, but productivity is the double in most crops. India produces as average, 50% to 60% of the world's benchmark in each crop, meaning that it is possible to improve production in India, using the same land.

Finally, the third and last part of the article is the strategic agenda for Indian's agricultural competitiveness. It is not different from most of the countries. It involves:

(a) Increase in social improvement programs: It is believed that a desire to increase social security programs with a focus more on investments and less on subsidies would these programs more sustainable.

(b) Research and development: This refers to attracting more private investments in research, considering local specificities and farmers needs and encouraging more private and public partnerships. Research should be driven to reduce country's disparities, promoting more extension to reach farmers with innovation outputs and toward water uncertainty.

(c) Human capital: Increase youth health, nutrition and education, implement capacity building policies in agriculture and also initiate vocational training.

(d) More value capture and diversification: Efforts should be taken toward intensification of crops (from grains to poultry), diversification to crops where lands could be better used and supply more value (from sugarcane to horticulture and fruit production) and collective actions of farmers.

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(e) Infrastructure: Improve investments in rural infrastructure, build more storage capacity, water storage capacity, stock operation and policies, improve cold chains, among others.

(f) Increase in agricultural production: Efforts should be taken to increase the yields and adopt modern farm technology, build storage and reduce waste, improve irrigation, provide access to credit, improvise land lease and land management and finally invest in mechanization (improving number of tractors, harvesters, and other equipment).

(g) Institutional environment: This involves gradually moving to a less regulated and more market driven agricultural chains, with clear, efficient and better managed organizations promoting institutional development.

India is a fascinating country. I really think it is in India that we will see real and rapid changes. In the next 10–15 years, India is poised for greater increase in its incomes and population leading to huge urbanization. Such growth would increase its opportunities to improve agricultural output, productivity along with improvements in its minimum wage and other social support programs. I believe India would strongly increase its participation in world food imports and definitely would be one of the superpowers in world economy, GDP, products and services trade.

Discussion question

What are your views and perceptions about India's role in future agricultural trade? How would this create opportunities and challenges for your company?

Chapter 22

What to Expect from Africa?*

Since 2006, when I first landed at O.R. Tambo International Airport and after South Africa World Cup 2010 turned it into a wonderful airport, I had the chance to visit several places in South Africa and delivered more than ten lectures in conferences, universities, public and private organizations.

I have traveled from the busy Johannesburg to the world class and marvelous Cape Town. I also visited cooperatives in Malmesberry and the legalist Bloemfontein to Bothaville, home of Nampo Park, the largest exhibition facility in South Africa. I also had a chance to visit the wonderful mountains of Clarens and Drakensberg, the cosmopolitan Pretoria and also other places of this lovely country.

In all these visits, I had opportunities to engage in deep discussions with producers, industry organizations and with government officials about Africa as a whole, to collect a lot of materials and learn about this unique continent by indulging in my favorite activity: asking questions and listening to people. I should not forget to tell the reader about the chance of tasting wonderful Pinotage red wines in Stellenbosch, in a scenario of dreams.

Although I have not had the chance to personally visit other African countries yet, I will try to generalize these ideas here for the benefit of the whole continent, well knowing that in Africa we have 55 countries and thousands of languages.

Africa had a continuous, but not homogeneous development in the last years, and it is well recognized that the countries that retreated from socialist economic models are performing better. Most African countries are now democracies. We have seen also empowerment of private businesses by governments and in several countries violence is declining, due to the end of "cold war," more media attention, awakening of the society realized by internet information and also the development of institutions. Some countries went through disarmament policies and policies to increase education, improving living patterns.

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* First published in *China Daily* (May 1, 2013).

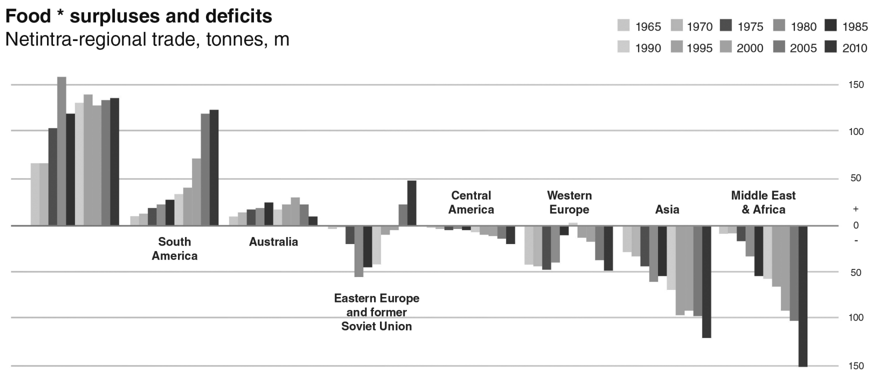

Figure 22.1: Food surpluses and deficits

Source: Mckinsey using data from FAO and USDA.

Africa normally isn't the major focus of attention of most food and agribusiness strategists, and this is a huge mistake under two lens or better saying, points of view: consumption and production.

In the lens of consumption, it is important to say that Africa, together with the Middle East, is the largest food importer of the world, as you can see in Figure 22.1.

The growth of Africa as a food importer is justified by the large economic growth of several countries (continuous growth of 6–10% in GDP per year) followed by some income distribution and growth of middle class. African countries are also facing the growth in urbanization and we may remember that some countries have very large populations, like Nigeria (165 million inhabitants), Ethiopia, Egypt and Congo (from 75 to 90 million), South Africa, Uganda, Kenya and Sudan from 35 to 50 million and with around 20–30 million inhabitants we have Mozambique, Cameroon, Ghana, Cote D'Ivoire, Morocco, Algeria, Madagascar and Angola. Africa has 55 cities with more than 1 million inhabitants and still 40% of urban population.

It is expected that Africa and Middle East will respond for 50% of world's meat import growth till 2022, 53% of wheat, 50% of rice and 25% of soybean oil. With the food consumption in Africa continuing to rise, some countries are developing policies towards food security.

In the lens of food production, it is also a mistake not to pay great attention to Africa. It is recognized that South America is growing fast and will be the future world food supplier, but I'd say that South Ame- rica would not be enough. We will need Africa to play an important role, since several African countries are full of production resources. The majority of land available to be brought to production is based in Africa (see Figure 22.2).

To feed the world within this consumption growth will put much more pressure over the resources a country or a region has to produce food. As resources, I consider

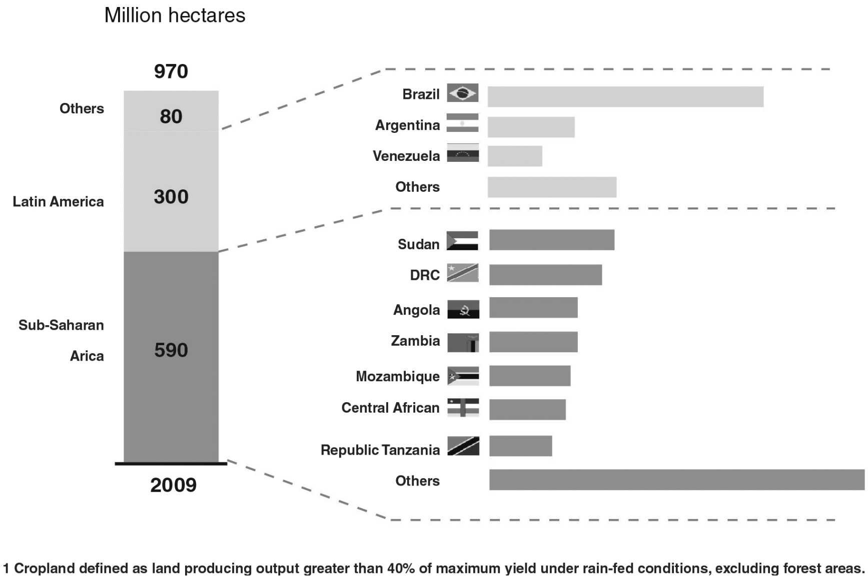

Figure 22.2: Additional available cropland, 2009

Source: McKinsey Global Institute.

land (soil), water, people, technology, information, connectivity, credit, energy (sun and power), institutions and government, storage capacity, agricultural inputs, transport and logistics and, finally, management capabilities. My general perception is that societies that own these resources and better manages them will be the ones to capture most of this food and agro related markets growth, promoting the development. And here is where Africa is still struggling.

Several issues regarding resources are perceived in Africa:

- Some countries lack institutions, political stability, high mortality rates, corruption, lack quality people in governments.
- Unsustainable agricultural practices are leading to soil and resources degradation.
- Logistics is also a huge issue and some countries that have oil are not investing these resources toward more competitiveness. Countries like South Africa face mining activities removing land from Agriculture.
- Fragmented food production systems and producers
- Difficult market access and week linkages
- Small holders isolated from commercial markets
- Productivity far below world averages
- Low credit availability

- Infrastructure not present in the way food and agriculture needs
- Lack of insurance

From these issues, an action plan with several topics emerge:

- There is an optimism toward biofuels, since they will empower African farmers and society. Some countries are already adopting these policies.
- Inclusion of black commercial producers
- Engagement of small holders
- Empower younger generations and women
- Initiate strategies to tackle the issue of food safety and security and the creation of jobs via agri-food business development
- Africa is pursuing investments that would result in sustainable job creation, inclusion of people and economic development
- Improve cross-border conditions and trade, reducing transaction costs
- Adopt standards
- Yield management and technology transfer
- Access to information and knowledge building
- Investments in building research capabilities
- Improve trade environment, laws and regulations and build committed organizations
- Improving data and information access via web and other sources
- Programs for better usage of the resources listed above

So there is a lot to be done in African agriculture and this brings several opportunities.

In this last part of this chapter, I would like to address common ideas from a research done with my friend Fabio Ribas Chaddad (Professor at Columbia University, Missouri), about the potential benefits for Africa from the ethanol industry development, since Africa has sun, land and water.

The Brazilian experience with the sugarcane industry — and, in particular, the recent growth fostered by ethanol mandates in Brazil and other countries — suggests that ethanol may generate the following benefits for the African people and society at large.

- A first potential benefit is that ethanol reduces dependency on foreign oil particularly as the oil industry generates increasing negative externalities and is fraught with geopolitical risks.
- A second benefit is the amount of jobs generated in all stages of the ethanol chain, from equipment suppliers to ethanol distribution systems, but also including allied industries such as research, trade and services.

- One of the most important potential benefits for the African people is the immediate reduction in pollution in large cities. As compared to gasoline and diesel, emissions from engines run on ethanol are increasingly smaller with considerable improvements in air quality and thus quality of life.
- Another benefit for African society is to, via an ethanol strategy, increase economic relationships and trade with important emerging partners among African nations and also with other emerging economies such as Brazil, China and India.
- From a business perspective, ethanol can generate opportunities for foreign direct investment for African people and companies, selling products and making profits outside Africa and repatriating these resources to help the development and income distribution in the continent.
- These investments will also allow Africa to have access to worldclass technology that is currently dominated by ethanol producing countries.
- Finally, Africa can provide a strong contribution towards mitigation of climate change in the 21st century.

Africa can follow several strategies to foster the development of the sugarcane chain, including emulating the Brazilian experience. In what follows, we offer some possible contributions to this debate.

- A strategic plan should be developed.
- A suggestion for Africa to get started in building up supply chains is to adopt an ethanol or renewable fuel mandate (such as in Brazil, the US and the European Union, to name a few). The initial mandate could start as an E10 policy (10% of anhydrous ethanol blended to gasoline), with a perspective of moving to an E25 policy when production capabilities are in place.
- In order to be able to increase ethanol production, Africa may initially invest in agricultural research and technical assistance to produce sugarcane, sugar and ethanol in some regions with existing technologies, and subsequently develop second-generation biofuels from cellulosic sources, perhaps adapting Brazilian technologies that have been developed since the 1970s.
- An integrated model based on a network of small farmers may be a useful approach to foster sugarcane production and rural development.
- Another important possibility for Africa is to invest in ethanol production in some selected African countries with favorable conditions, which could supply other African nations. This would serve as the basis for an oil import substitution policy aimed at substituting oil imports with ethanol produced in the continent. This strategy will reduce dependency from oil producing countries and enhance economic ties among African nations.

In conclusion, I am very positive about Africa. My view is that in the next 10 years we will talk a lot about Africa as a leading world food consumer, several investments will be done, a real laboratory of agribusiness experiences. After the next 10 years, we will talk about Africa reaching food security and even becoming a food exporter. In Africa, there are several opportunities and the real agribusiness entrepreneurs, the ones that view ahead have scheduled their flights, are landing, or already landed in O.R. Tambo International searching for opportunities, building relationships and doing investments.

> **Discussion question**
>
> What is your view towards Africa? Raise a list of possible opportunities for your organization in the African context.

Chapter 23

There Are Alternative Solutions for the Food Crisis*

In the chapter *The Food Crisis Will Be Back*, I addressed the food crisis debate; the ideas came from previous research which were further developed and published in two important academic journals.

At the time of writing the chapter, we had comfortable food commodity prices and I explained that the 2007–2008 crisis was serious and structural, caused by nine factors, with different levels of responsibility (effect). Let's get back to them: use of grains and agricultural land for biofuels; population growth effects (220,000 new stomachs to feed every day); strong income increase and distribution in emerging economies (with inaccurate consumption data); urbanization of population (megacities); local governments' income support programs; high oil prices; production shortages (due to climate, unsustainable water usage, plagues and diseases, low prices and other factors); dollar devaluation and investment funds speculation.

It is not difficult to anticipate another food crisis, since we are facing a new era in consumption. Just to illustrate, global consumption of wheat is growing (three years average) by 10 million tons per year, corn almost 30 million tons per year and soya by 20 million tons per year. Meat consumption increased by almost 20% in nine years. In essence, people are having access to food.

Food commodities prices rose by 40% in one year, and nonfood commodities by almost 94%. This price increase is bringing back inflation, hunger and political disturbances in some developing countries where the population spends 30–50% of their incomes with food and are net importers of oil.

And where does President Sarkozy come into this story? As the G20 leader, he is worried about the rising food prices and proposed a strategy for the G20 to intervene in some way, trying to lower the prices, with more regulation for financial markets

* First published in *China Daily* (February 9, 2011).

of commodities and even building global stocks. We must remember that food commodities chains face all types of interventions and distortions, from billions of dollars spent in subsidies, high import taxes with a historical damage to several agricultural export-based economies of developing nations. His preoccupation is very relevant, but I think we could move in another and more positive long-term direction, acting with the causes of the problem.

In the same chapter, I pointed 10 solutions to deal with the food crisis, trying to bring more equilibrium basically promoting a shock in the offer (production) and efficiency, which is a "win-win" strategy. These solutions are: sustainable horizontal expansion in food production using new available areas in South America and Africa where water is not scarce; vertical expansion to increase productivity; reduction in food taxes, other market protections and barriers that increases costs and inflate food prices for the final consumers; investment in global logistics to reduce waste and costs for food transport; usage of the best sources for biofuels production that don't compete with food chains (ethanol from sugarcane is the best example here when compared to corn for feed); investments toward a reduction in transaction costs that occur in all food chains; manufacture of cheaper and innovative sources of fertilizers (which, at present, are a high cost to farmers); sustainable supply contracts to farmers for more balanced margins allocation; spreading innovations (GMO's, nanotechnology and others) and, finally, consumer behavior changes to avoid losses and even overconsumption of food (obesity). Global politicians and strategists could expand their ideas and policies with this 10-point list.

To stimulate a policy of global stocks and controls in prices as they are proposing will make food commodities markets even more artificial. These policies were already studied by important economists of OECD, showing that the intervention did not work. Other interventions like contingencies of exports and high export taxes may have an immediate positive result to control inflation in local markets, but they produce damage in the middle term, since they all reduce farmers' incentives to increase production and productivity.

Famers for a long time suffered due to subsidies for production in some specific countries, that led to lower commodity prices and lesser incentives to grow production and promote income distribution in the world. It is now time to change. Farmers worldwide, but mostly in emerging nations and Africa, need price incentives, technology, credit and buying contracts (market access) in order to invest and increase production to a level that will be in tandem with the increasing food demand in the next 10–20 years, and help solve the food crisis.

If United Nations, FAO and the G20 are worried in the coming months with regard to food prices, let us immediately reduce taxes over food and even supplement lower-income people with a temporary governmental support and move toward these proposed 10 points of development.

We will need to double food production in 10 years, and the world has land, technology, water and farmers to do it. Let us move toward the right direction: incentives for the sustainable growth in global farm production and trade, generating welfare, inclusion and peace.

Discussion question

What is your view of this picture of the food crisis today? What is your view of the future of food business in 10-year time?

Chapter 24

Food Chains and Networks Development: A 14-Point List*

Every two years, the University of Wageningen, Netherlands hosts the International Conference on Chain and Network Management.

For me to return to Wageningen is always filled with emotions since I had a chance to live in this wonderful part of the world in 1998 and 1999 during my Ph.D. studies.

In May 2010, we had the 8th Conference, the first having been held in 1996. Around 200 researchers from 40 different countries participated in three days of discussions on developments in science and the practice of integrated vertical production chains and companies networks.

This chapter presents some of the important topics discussed and major developments needed for the future. The summary is a 14-point list that may be useful for companies, governments and academics in terms of future development and emerging topics, suggestions for policies and regulations. They can contribute to a more efficient and sustainable production system, aimed at a new era of scarce resources.

Chain design, governance and performance. Since chains compete in a global arena against each other, they should have adequate governance. Thus, contracts can lead to better performances in adding value, profit generation and distribution, costs, processes and other measures.

Chain waste. An integrated food chain generates waste in almost all its agents and phases. We also have wastage of the final products, estimated at almost 40%. Thus, waste management and reduction/re-usage is of fundamental importance in an environment pressurized by a society demanding sustainability. Integrated inventory management and collaborative logistics are among the most important developments for reducing redundancies, waste and depletion of fossil resources.

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*First published in *China Daily* (May 31, 2010).

Food risks and chain integrated risk management. There is a need to take an integrated approach to all the increasing risks in food chains, such as contamination and financial risks. Food security should be improved and the costs of this improvement shared with all agents.

Sustainable chains and certification. Consideration must be given to land use, resources conservation, nature and biodiversity. Certification processes, value and costs are part of a larger debate.

Chain and networks impact and adaptation. We must consider how the growth impacts from an unstable environment are affecting food chains and networks.

Chain and networks legislation and regulation. Chains are transnational and deal with different governments and laws, different institutional environments, bringing complexity to their management due to permanent interventions.

Food and health communication. This point is linked with the previous topic but gains importance due to several restrictions that chains are starting to face in terms of marketing communications, due to overconsumption, obesity and marketing targeted at kids.

Climate change and chains adaptation. With higher incidences of droughts, climate unpredictability is taking us to a situation of lower production and harvests and loss of land and water, and the possibility of future migration processes.

Chain information management. Information transparency and sharing has a positive impact over chains' activities, bringing better management and performance. This also involves the design of information management systems and decision support models.

Biomass-based chains. With the growth in the use of biomass and grains to produce energy and fuel, there is a pressure over existing resources in some countries, bringing a mixture of chains and competition for resources.

Metropolitan agriculture chains. This refers to the growth of food production in metropolitan spaces and areas and its integration with modern supply chains.

Chain and network intermediaries. In a process of mapping and redesigning chains, there is no more space, in a world of giants and lower margins, for intermediaries that do not add value. These agents and companies are facing a fast exclusion movement.

Chain and network entrepreneurship and innovation. This aspect has been discussed in earlier chapters, with an extensive agenda for future work.

Chain inclusion and social innovation. An important topic that we also discussed is the capacity of chains to promote the inclusion of small holders. Table 24.1 presents a summary of the 14-Point List and some major developments needed for the future.

Table 24.1

The "Food Chain´s 14 Trends"

The 14 Point List	Major developments needed for the future
1. Chain design, governance and performance	Have an adequate governance contracts can adding value profit generation and distribution reduce costs
2. Chain waste	Management and reduction/re-usage Integrated inventory management and collaborative logistics
3. Food risks and chain integrated	Integrated approach to all the increasing risks in food chains (like contamination, financial risks, and others) Food security should be improved and the costs of this improvement shared with all agents
4. Sustainable chains and certification	Land use, resources conservation, nature and biodiversity Certification processes, value and costs
5. Chain and networks impacts and adaptation	Know how the growing impacts coming from an unstable environment are affecting food chains and networks
6. Chain and networks legislation and regulation	Deal with different governments and laws Deal with different institutional environments
7. Food and health communication	Know what restrictions that chains are starting to face in terms of marketing communications, due to over-consumption, obesity and marketing for kids
8. Climate change and chains adaptation	What to for reduce the lower production and harvests and loss of land and water
9. Chain information management	To develop information management systems and decision support models
10. Biomass based chains	Competition for resources Growth in the use of biomass and grains to produce energy and fuel
11. Metropolitan agriculture chains	Growth of food production in metropolitan spaces
12. Chain and network intermediaries	Make a process of mapping and redesigning chains and add value.
13. Chain and network entrepreneurship and innovation	Agenda for future work
14. Chain inclusion and social innovation	Promotes the inclusion of smallholders

Source: Author

Discussion question

What are the other trends you see? How would these trends affect your business?

Chapter 25

Scenario Planning for Food Chains*

This chapter shares a method for scenario planning of food and agribusiness chains. It may be useful to envision how, for instance, the coffee chain, sugar chain, poultry chain would look like in 2023 and how a company operating in this particular food chain could better position itself.

A food chain is an integrated network of companies operating in the flow of products, services, communications, payments and information required for a specific product to be built (transformed) and to reach the final consumer. An example will help to clarify: when talking about the coffee chain, we consider the agents coming from the input suppliers (fertilizers, farm machinery and others) toward the final consumer of coffee. In the middle of the chain, we have coffee farmers, coffee roasting and processing industry, distributors, supermarkets, coffee shops and other agents.

The same applies to other food or agribusiness chains like poultry, beef, soybean, sugarcane, orange juice, paper and pulp, leather, ethanol, tobacco, etc. This method based on three phases is designed to predict how the chain will look like in a certain amount of time.

Phase 1 requires a design/description of the chain to understand how it looks like and who are the participants in each of its levels.

Phase 2 would involve the vision of the future. Here we should come backwards, starting the analysis from (1) the final consumer, (2) distribution (considering retailing, wholesaling, foodservice and other channels), (3) food industry (this carries out secondary processing and more marketing activities), (4) agro-industry (primary processing level), (5) farming, and finally (6) the input suppliers. Some chains have different organizational schemes, and even may have other level of participants. However, the thinking process remains the same.

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*First published in *China Daily* (March 1, 2012).

Some questions dealing with consumers are:

- How will the consumers look like? What will be value for them?
- How would new products affect their behavior?
- What are the trends in income (effects in developing and emerging countries)?
- Which changes will occur within the buying behavior (conscious, environment, sustainable)?
- How demographic (urban, older, lonely) trends will affect consumption? How preferences (flavors) will change?
- Will genetically modified organisms (GMOs) and other technologies be accepted by the consumers and if yes, what will be the reactions?

Some questions dealing with distribution are:

- What are the trends in retailing?
- Will retail concentration and global operation movement continue?
- What to expect from private labels?
- What will be the effects of technology and price transparency?
- What will be the policies toward supply chain (purchasing)?
- How will competition among retailers affect the chain?
- What will be the role of food service industry?

Some questions dealing with food industry are:

- What will be the speed of new product development (NPD)?
- How will consolidation look like?
- How will cost margins and profitability of product-lines look like? What will be the relationship with retailers and agro-industry?
- What are the roles of regional companies?
- Who are the new players diversifying into this market?
- What is the growth expectation for this industry?
- How to solve the logistics problems to supply the emerging markets?

Some questions dealing with agro-industry are:

- How will the industry be structured?
- Will the agroindustry be concentrated? Would the agro-industry operate in a global scale?
- What would be the client logistics and purchasing behavior?

- Who will be the new players? Where would they come from?
- What will be the degree of own production of inputs? How will operating costs and margins look like?

Some questions for future farming activities are:

- How will production be structured?
- How will concentration happen? Will it be more professional?
- Which will be the most competitive areas in the world? Which are the growing areas and declining areas?
- What will be the role of cooperatives and associations?
- Will crops be substituted in some areas?
- How will plagues and diseases will affect the chain?
- What to expect from regulation changes? How production costs will look like?

Finally, questions dealing with input industries are:

- What innovations will come to market?
- What would be movements upward the supply chain and how would they be implemented?
- How will the selling and distribution channel structure look like?
- Will the concept of offering integrated solutions for farmers be the most suitable strategy?
- What will be the stand regarding GMO?

Table 25.1 resumes the major questions to be done at each level of a particular food chain.

Phase 3 would be suggested if a *particular company* wants to use this food chain scenario built in steps 1 and 2 to have their vision of opportunities, confront challenges and learn to position itself towards this future scenario. I hope this method can contribute to chain participants and to individual companies and strategists in their planning activities.

Table 25.1

INPUTS SUPPLIERS	FARMERS	PROCESSING INDUSTRY Agro - industry	MARKETING INDUSTRY Food industry	DISTRIBUTION	FINAL CONSUMERS
What innovations will come to market?	How production will be structured?	How industry will be the structured?	Which will be the speed of New Product Development (NPD)?	What are the trends in retailing?	How will the consumer look like?
What movements upward the supply chain will be done?	How will concentration happen?	Will the agro-industry be concentrated?	How will consolidation look like?	Will retail concentration and global operation movement continue?	What will be value for them?
How will the selling and distribution channel structure look like?	Will it be more professional?	The agroindustry would operate in global scale?	How will costs margins and profitability of product-lines look like?	What to expect from private labels?	How new products can affect the market?
The concept of offering integrated solutions for farmers will be the most suitable one?	What will be the most competitive areas in the world?	How would be the logistics to the clients and purchasing behavior?	How will be the relationship with retailers and agro-industry?	Which will be the effects of technology and price transparency?	What are the trends in income?
How will the situation of genetic modified organism (GMO) be?	Which are the growing areas and declining areas?	Who will be new players?	What are the roles of regional companies?	Which will be the policies toward supply chain (purchasing)?	What will be the effect in developing and emerging countries?
	What will be the role of cooperatives and associations?	Where they may come from?	Who are the new players diversifying to this market?	How competition among retailers will affect the chain?	What changes will occur in buying behavior (conscious, environment, sustainable)?
	Crops will be substituted in some areas?	What will be the degree of own production of inputs?	Which is the growth expectation for this industry?	What will be the role of foodservice?	How demographic (urban, older, lonely) trends affect consumption?
	How plagues and diseases will affect the chain?	How will operating costs and margins look like?	How to solve the logistics problems to supply the emerging markets?		How preferences (flavors) will change?
	How to expect from regulation changes?				How is and how will be the acceptance to GMO's and other technologies?
	How production costs will look like?				

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Discussion question

Produce a scenario planning for the chain where your company is integrated.

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Chapter 26

How to Build a Strategic Plan for a Food Chain: The ChainPlan Method*

It is estimated that by 2020, food supply in the world will have to be increased by at least 50%, although the areas available for agriculture and sources of water are restricted. An efficient logistics system is still a challenge in many countries. It is difficult to predict how much biofuel will be needed since it depends on car fleets and their evolution, industrial demand, human demand, institutional environments (percentage set by governments for biofuel additions to oil) and consumer behavior. So, to deal with all the environmental changes in the national and international business arena, and growth opportunities in the food, fiber and bioenergy production chains, strategic planning should be focused on understanding these production chains.

Increasingly, it will be necessary to instill a strategic planning and management process in various agribusiness systems. In 2007, I developed the ChainPlan method for "Strategic Planning and Management of Agribusiness Systems" which has been applied to agribusiness systems in Brazil, Argentina, Uruguay and South Africa, among other countries. It consists of five stages: the initiative of systems' leaders, the mapping and quantification of the agribusiness system, the formation of a vertical organization, the plan with strategic projects, and the implementation of the plan.

The ChainPlan method is summarized in Figure 26.1, which shows a five-step process aiming at the implementation of strategic planning and management in production chains.

* First published in *China Daily* (August 10, 2012).

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Figure 26.2 presents the details of step 4 of the ChainPlan Method. This step is divided into 12 stages, with an attempt to design an integrated strategic plan for the agribusiness system in the following 5 or 10 years.

Each stage is elaborated on in the guidelines presented in Table 26.1.

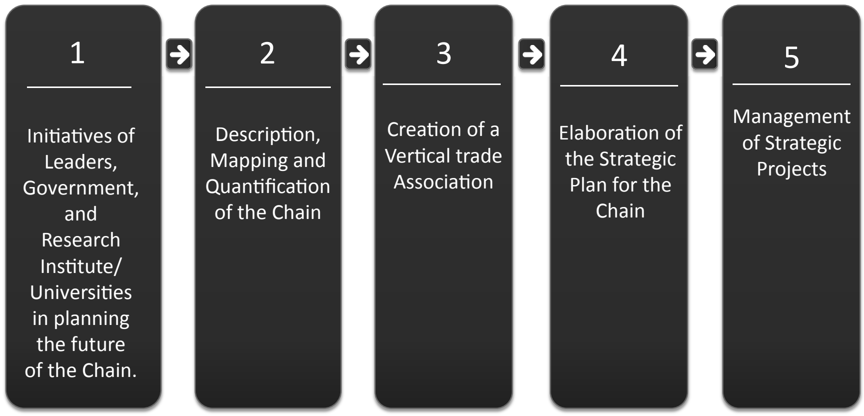

Figure 26.1. The ChainPlan method for strategic planning and management of chains

Source: Neves (2007).

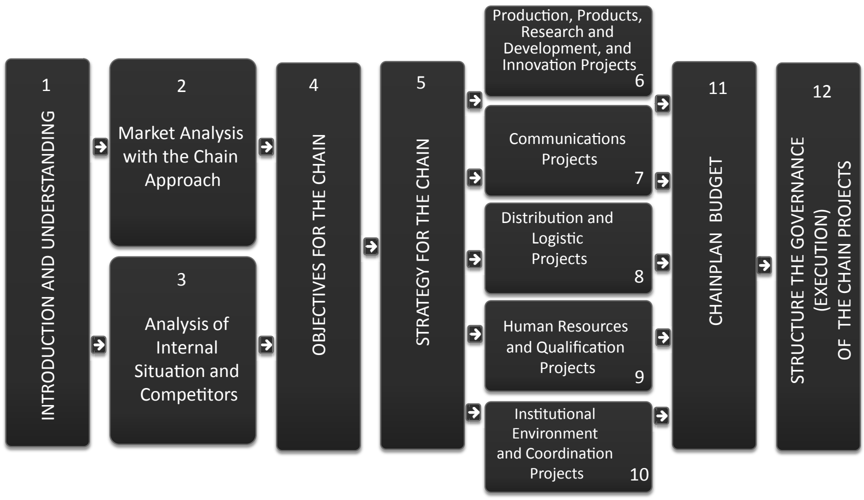

Figure 26.2. Sumary of ChainPlan Plan (step 4).

Source: Neves (2007).

Table 26.1

Guidelines for demand-driven strategic planning and management of the chain

Phase 01 - Introductory

Stage	What has to be done
1. Introduction And Understanding	✓ Verify if the chain has other plans made and to study them; ✓ Verify which teams will take part in the process; ✓ Study plans made for production chains in other countries, for benchmarking; ✓ To identify a member of the team who could promote relationships with other chains; ✓ Finally, in the case of chains with sophisticated planning processes it must be verified how this model can help the existing model, and how to adapt, gradually, the chain to this one.
2. Market Analysis with a Chain Approach	✓ Understand the chain participants and industries involved; ✓ Analyse the major numbers; ✓ Address threats and opportunities coming from the legal/political, economic/natural, socio-cultural and technological environments; ✓ Understand trading barriers (tariff and non-tariff); ✓ Map chain uncertainties; ✓ Value creation and capture possibilities; ✓ Produce a scenario analysis for each chain participant; ✓ Analyze consumer trends and behavior; ✓ Map the buying decision process; ✓ List worldwide sources of useful information; ✓ Map most important events and other meetings where the future trends are discussed
3. Analysis of Internal Situation and Competitors	✓ Identify all the strong and weak points of the chain; ✓ Map chain contracts and other existing forms of coordination; ✓ Describe the existing structures of associations (collective actions) ✓ Analysis of major competitors: structure, numbers, growth, and other information from competing countries; ✓ To analyze the critical success factors of the chain; ✓ Select national and international benchmarks
4. Objectives for the Chain	✓ To define and quantify the major chain objectives in terms of production, exports, imports, and other financial indicators
5. Strategies for the Chain	✓ List the major strategies (action) that will be used to reach the considered objectives in item 4 in terms of positioning, exports, value capture, and market segmentation.

(*Continued*)

Table 26.1 (*Continued*)

Phase 2 - Plans of Strategic Vectors: Production, Communication, Distribution Channels, Qualification and Coordinator (Institutional Adequacy)	
Stage	What has to be done
6. Production, Products, R&D, and Innovations Projects	✓ Analyze productive potentials and production capacities; ✓ Map and plan for production risks (sanitary and others); ✓ Products and product lines, as well as complementary product lines ✓ for expansion decisions; ✓ Innovation opportunities and in the launch of new products; ✓ Settle national and international innovation networks; ✓ University partnerships and with medical (health, nutrition) and cosmetics areas; ✓ Understand current and potential services to be offered; ✓ Joint construction of brands and other brand strategies; ✓ Labeling opportunities; ✓ Certification processes for the chain; ✓ Environmental sustainability; ✓ To make packaging-related decisions (labels, materials, design);
7. Communication Projects	✓ Identify the target audience for the communication (messages from the ✓ production chain); ✓ Develop goals for this communication (product knowledge, product reminders, ✓ persuasion, among others); ✓ Search for an unique positioning and message; ✓ Define the communication tools as advertising or public relations, amongst others that can be used. ✓ Develop a strong platform for new media communications; ✓ Review communication actions and determine the annual budget involving all the network agents; ✓ Indicate how communications results will be measured so that the chain learns ✓ more and more about the best tools to achieve revenue on investments.
8. Logistic and Distribution Projects (Including Exports)	✓ Analyze the product distribution channels and to search for new ones; ✓ Analyze the possibilities of value capture in the distribution channels; ✓ Identify possible demands of international traders and consumers ✓ to suit the existing services; ✓ Define new ways to enter the markets (through franchising, joint ventures ✓ and other contractual forms, or through vertical integration); ✓ Determine annual budget for distribution; ✓ Verify how distribution actions can be done together with other chains.
9. Human Resources Projects	✓ Training in management for the chain participants; ✓ Training in cost controls and use of technologies; ✓ Training in national and international sales; ✓ Extension and knowledge dissemination; ✓ Network of technical assistance to improve yields; ✓ Others.
10. Institutional Environment and Coordination Projects	✓ Projects to finance the chain; ✓ Basic infrastructure improvement projects; ✓ Increase consumption in government (food aid and others) programs; ✓ Special development programs for sensitive areas and chain participants; ✓ Tax reductions in the production chain project; ✓ To strengthen export activity through export promotion agencies; ✓ Special programs for the use of technologies (fiscal incentives, lower rates and others); ✓ Facilitate standardization projects; ✓ Promote transparency; ✓ To develop proposals for chain conflict solutions.
11. ChainPlan Budget	✓ Budget for every project and total plan budget.
12. Strategic Projects Consolidation	✓ All projects generated in steps 6 to 10 will be consolidated and priorities will be settled based on budget constraints and others

Discussion question

What would be the strategic plan for the chain that your business is integrated with? In your view which would be the most important projects?

Chapter 27

The Four P's of Sustainability Planning*

Sustainability in food chains is becoming increasingly important, and hence, I want to propose a framework to help companies and governments come to grips with discussions on sustainability and its implications, and finally to emphasize the importance of implementing what is discussed. Unfortunately, in this area there is too much talk and not much action, both from governments and companies.

Sustainability, previously defined as "responsible use of exhaustible energy resources and raw materials" has gained a huge increase in awareness over the world. This can be seen in the rise in expectation of consumers who are more aware of the problems associated with sustainability, the emergence of new generations increasingly concerned about environmental issues and having the common sense to conserve the earth, the scarcity of the planet's natural resources for all its population, risks of global warming, causing floods and hunger due to lost agricultural land, and the impact of communications via the internet, which allows immediate knowledge of disasters, bad behavior of companies, excess pollution and other issues.

At a corporate level, there is a growing concern that efforts should be undertaken to reduce the impact of the firm's activities on the environment, increase transparency (corporate social responsibility) to promote a better flow of information, promote more inclusion and less social imbalance and finally, increase the company's usage of natural and renewable resources/energy.

Sustainability has three traditional major pillars that are needed to promote development. The economic dimension (profit), the environmental dimension (planet) and the social dimension (people). I am adding a fourth "P": proactiveness (see Figure 27.1).

* First published in *China Daily* (November 27, 2009).

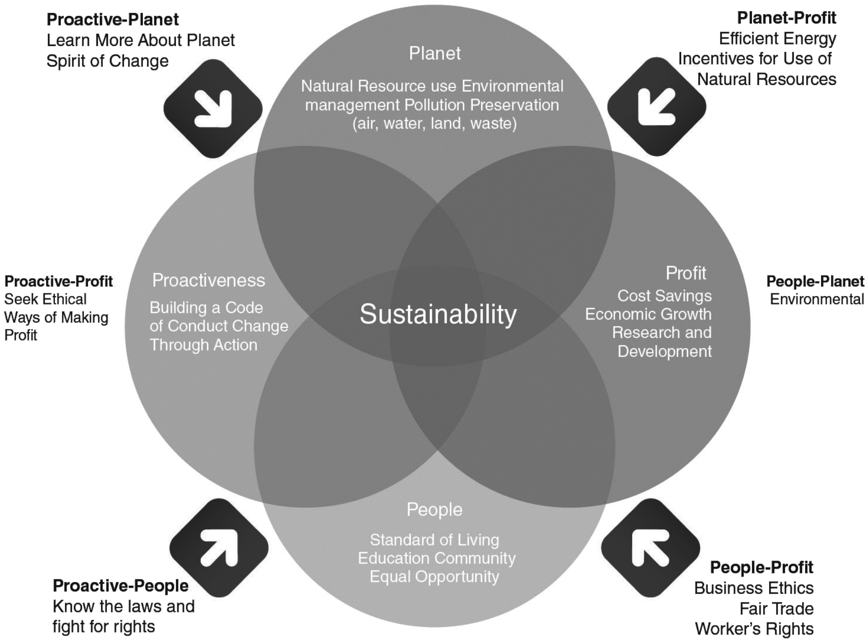

Figure 27.1. The Four P's of Sustainability.

Source: Author.

On the **economic (profit)** side, the major factors to be considered are how companies, networks and production chains deal with margins, profit, compensation, losses in the chain, communication issues for end consumers, improving credit conditions with benefits for sustainable projects, risk management (knowledge of financial markets and financial instruments), information technology (information access and reduced transaction costs) and overall strategies to reduce costs and achieve economic sustainability of the business. Without economic sustainability, any other request is impossible, since companies cannot pay for it if they don't have margins. This is a first and important step. A company must be economically sustainable.

On the **environment side (planet)**, the major factors to be considered are the impact of the company on the environment, the impact of the company's integrated suppliers, the impact of transport (food miles), packaging (trying always to recycle/reuse/rebuild using new materials and less materials), waste management (generating less waste; separating and recycling; generating energy/fertilizers from waste), use of energy, emissions, water management (company view of usage; protecting water; management; and spreading best practices), more digital and less paper, reuse of materials, green and environmentally-oriented buildings and facilities, carbon emissions/neutralization (carbon footprint), among others. Consumers also have an incredible task here, changing their own habits and having a more responsible consumption behavior.

On the **social (people)** side, the major factors to be considered are working conditions of employees; conditions among the company's suppliers and distributors; health and safety; usage of child labor; working climate; safety equipment; promoting actions for local community; incentivizing cooperation; installing small holder-friendly initiatives and performing technology transfer for small holders; improving the local companies' capacity and always promoting the product line benefits to the consumers, for instance, having more nutrition, being more worried about health concerns, etc.

Finally, a company must be **proactive**. Do not only talk about sustainability, but act. This involves building a code of conduct for implementation within the company and also following the code of conduct as prescribed by the industry associations. The government on its side should inculcate awareness, have a budget for sustainability, initiate immediate steps to reduce environmental impacts, constantly monitor activities, document, have committees and boards and facilitate exchange of information and knowledge.

A planet that is imbalanced will not be sustainable in the long term. It is our responsibility to promote better conditions for the future generations to live on the earth with greater equilibrium. The agenda is here. History books will either remember our generation as the one that took the actions, that made the difference, and helped the planet to survive and to get better, or the opposite may become true. We will be remembered as the generation that did not implement the changes that were needed. Or even worse, in a catastrophic scenario, we will no more have history books or people to read them.

Discussion question

Which opportunities in the sustainability arena are most appropriate for your company?

Chapter 28

Producing More Food with Less Resources*

This chapter will touch a sensitive topic for organizations working in food and agribusiness integrated production chains. I will present the "Efficiency-Driven Agribusiness (EDA) Model," built upon in-depth discussions (two workshops) with global agribusiness leaders and CEOs of companies operating in several world food markets. It is conceptualized to address the need of producing more food and bioenergy to a growing world facing scarce basic resources, as water, land and fertilizers needed for food production. It is designed for the era of "doing more with less."

The EDA model considers eight major areas where efficiency should be pursued. After each area, several topics will appear as a working list or targets to be achieved by business people, public policies maker and mostly, by scientists.

1. **Land use and management:** We need to increase land productivity; shorten plant production cycles; increase efficiency in land operation and management; search for lower environmental impact technologies (recycle, synergies among food chains, energy savings technology); have more efficient and conservative soil operations; have localized and adapted solutions and use renewable energy sources (produced locally) for fueling agricultural activities.
2. **Plant production:** Develop technologies to increase the potential of the grains' contents (energy, protein); to accurately predict nutrition requirements of plants thereby avoiding losses in the process; create plants that use resources (water, sun, nutrients) efficiently and plants that are much more resistant to adverse conditions (diseases, droughts and other damages).
3. **Animal Production:** This includes research for better understanding of the nutritional requirements of all species; technologies to increase productivity of raw materials as feed; thinking in productivity per hectare (protein per

* First published in *China Daily* (August 15, 2011).

hectare); alternative programs for disease control and the need to better understand microbial processes (pathogens, micro-bios) and the environmental and health consequences; added value via nutraceuticals, natural medicine and health combined with nutrition; search for alternative proteins like algae; identify cost-efficient alternatives to antibiotics; micro-encapsulation for controlled release of nutrition; animal welfare management and genetic development for sex selection (e.g. female-laying chicks would reduce cost and improve animal welfare), among others.

4. **Risks and waste management:** Search for new solutions to manage the increasing risks of food chains; food safety; controlled conditions with accountability and measurement and develop risk management tools that are suitable and standardized and to manage risk in supply chain all the way from the input supplier to the final consumer (with traceability). Develop more tools to analyze food losses in all chain participants (at home/cooking, supermarkets and restaurants, industry, farm, storage, transport); effective portion sizes (avoiding waste); develop processes for recycling and utilization of by-products and manure, particularly by-products of growing biofuels production.
5. **People´s management:** Management of human resources, labor force and teams.
6. **Government:** Search for innovation and efficiency in public management systems; harmonization of worldwide regulatory systems to improve efficiency and reduce transaction costs; the formalization of illegal and informal chains, that in some markets still represent 50% of market share; promote and facilitate financial flows and investments to agriculture; build innovative financial support systems for emerging nations and integration of regulatory groups with the private sector.
7. **Research, innovation, diffusion and knowledge transfer**: Build alliances with banks, universities and competitors for better use of assets; closer relationships with raw materials suppliers; public and private-sector partnerships; cooperatives for innovation; working together with the regulators and the University; focus on solution-driven management of research and development and the use of nanotechnology development. Establish a global online network to generate new technology and development to reduce response time (including all chain participants); social media to market and communicate innovation (web transfer); better communication with consumers about biotechnology; improve the image of agriculture and food production; use retail outlets and other points of sales as points of communication about new trends; guide about products/markets/trends in overall production chain ("get closer to customer"); extend technologies to backward parts of the chain (farmers spread all over) with extension systems; build bridges with developed and emerging economies to spread technology transfer and develop suitable practices for different markets and levels of development, with localized solutions.
8. **Logistics (storage and movement):** Optimize logistics within the entire supply chain, for more efficiency in emerging countries with poor infrastructure; invest in better storage capacities and use renewable fuel sources for transport, reducing carbon footprint, among others.

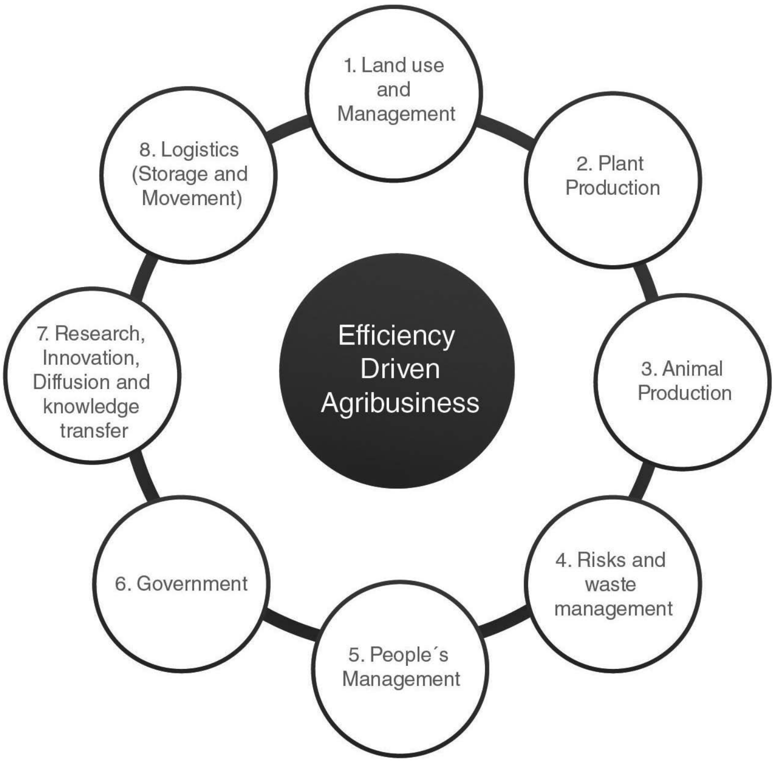

Figure 28.1. Efficiency-driven Agri-business — EDA.

Source: Author.

This list is not exhaustive, since several other factors are important, but we discussed here several ideas from a perspective of producing more with less. Each of these points can be turned to questions for debate and projects derived from this debate.

Discussion question

How can your company increase efficiency using the EDA model? Which other topics not included in the model may be considered?

Chapter 29

Sustainable Supply Chain Initiatives*

This chapter has been written to share my impressions after studying the document of McDonalds called "Best of Sustainable Supply 2012." This initiative was a competition launched by the company, stimulating suppliers to submit the best practices done. 400 projects were submitted and 51 selected by six companies and NGO experts based on criteria of measurable results and innovation. It is a value creating and sharing project.

The projects focused on areas that create and share value: employee wellness, waste, climate/energy, animal-welfare, water, raw materials and community impact. Here, I summarize findings in each area.

Employee Wellness: Value was created based on improving working conditions, where freedom, security, equity and dignity were guaranteed. Also criteria for compensation and benefits were considered. In the evaluation of McDonalds, these projects went beyond the "McDonalds Supplier Code of Conduct" promoting real benefits in creating value via differentiation. Among the winning initiatives were an educational program designed by a supplier in Thailand to help its employees to complete their primary, secondary and even higher education, with more than 2100 employees participating since the beginning (1994). Other initiatives included employee's health plans in South Africa, wellness programs with fitness-centre and weight watchers within the company and opening channels for better employee communication.

Waste: Food production operations can generate large amounts of waste within the production and packaging processes. Value was created within McDonalds suppliers via eliminating waste sent to landfill via control of production processes and

* First published in *China Daily* (April 20, 2012).

increasing recovery rates. Several suppliers took initiatives in the field, some of them approaching policies named "reduce, reuse and recycle," reducing excess materials in packaging, cutting delivery trips, the usage of recycled plastic pallets, recovering animal grease from dissolved air flotation units and collecting restaurant waste.

Climate/Energy: Here, the efforts of suppliers were to identify the sources of greenhouse gas emissions for a reduction in carbon footprint. To achieve these goals, the projects focused in increasing energy efficiency and the use of renewable sources of energy. One of the projects started with a "real time" energy management, another stimulated a program for energy-saving ideas among employees in order to raise awareness, use of flowing water and solar structures to generate electricity, transforming waste-water to biogas and using biodiesel in truck engines.

Animal Welfare: Efforts were taken to create value via proactive steps for the welfare of animals including responsible use of medication, growth promoters and genetic selection, and improving nutrition, husbandry and well being of animals in slaughter process and also within several transportations. Initiatives included animal welfare training, thermal comfort for poultry and best practices sharing.

Water: Value creation initiatives in water were related to improving water efficiency, reducing water pollution and creating policies for waste water treatment and reuse. The best were the projects to raise awareness, to collect ideas among employees, have more efficient equipment for water treatment, waste water recycling, water consumption in ice machines and the creation of specialized cross-functional teams that visited factories and discovered opportunities for water saving policies.

Raw Materials: Value also could be created with the McDonald's suppliers raw materials initiatives, really moving backwards at the supply chain (suppliers of the suppliers). The goals were to include agricultural working conditions, soil fertility, erosion and contamination, promote responsible use of chemical products and preserving biodiversity. McDonalds suppliers offered free programs for carbon assessment in their suppliers identifying potential saving initiatives and having innovative projects for carbon emission reduction. Such initiatives included plastic bottles produced with ethanol, micro-irrigation, safe handling of chemicals, package recycling, integrated pest management and programs for soil recovery. McDonalds suppliers worked together with their raw materials suppliers towards these value creation activities, building a real integrative chain approach.

Community Impact: This was the final possibility considered for value creation. Projects demonstrated their capacity to give value back to communities where they are located via volunteer efforts, investment in infrastructure and charitable organizations. This was done by supporting medical programs, creating nutrition for orphanage, supplying clean water for villages, teaching children, improving air quality, offering free technical assistance, recycling uniforms as cloths and programs for fighting hunger.

Several learning lessons were derived from this initiative of a leading food-service company creating value via sustainable supply. The most important is the creativity to implement a program stimulating suppliers to compete and submit the projects for evaluation and then communicating the results, spreading knowledge and benchmarks. Several nice ideas were given in this real integrative chain approach for value creation and sharing.

Discussion question

Which of these learnings could be applied in your company based on this discussion about sustainable initiatives?

Chapter 30

More about Sustainable Supply Chains*

Nutreco is a Dutch multinational company operating in the feed industry, and in 2012 this company launched a report called "Nutreco Feeding the Future: How we can contribute to feeding 9 billion people in a sustainable way: Vision 2020." This chapter was written to share with *China Daily* readers my impressions studying the document, another example of sustainability.

The company aims to create value in several different activities. Nutreco states that they "aim to become the global leader in animal nutrition and fish feed, delivering innovative and sustainable nutrition solutions."

It is evident from the report that Nutreco has an integrated chain approach. For the company, the conditions of success include engaging people from inside and outside. "Every change depends on the efforts and commitment of one and more individuals. . . . Furthermore we have to keep our customers and end users in mind of what we do and helping them to be more productive and environmentally and socially responsible."

Nutreco divides the 2020 vision in four major areas: ingredients, operations, commitment and nutritional solutions. Each major area has four sub-divisions, summarized here:

Ingredients sustainable sourcing: The objective here is to build value sourcing through third party sustainable systems endorsed by vendor policies. The stimulus came from a pressure to reduce negative impacts over biodiversity, social and environment, coming from supplier activities. The actions will include round table initiatives, auditing, suppliers engagement activities, extending supply chain coordination, promoting demand for responsible ingredients, communicating to suppliers and measuring the results.

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* First published in *China Daily* (May 4, 2012).

Ingredients sustainable partnerships: This refers to increasing and strengthening sustainable partnerships and supply chain projects. One of the future challenges is the cooperation among businesses, governments, knowledge centers and NGOs to boost innovation, sustainability and cost reduction. Thus, companies will improve partnerships, classify supplier base, evaluate supplier classification and build sustainable supply chain projects.

Ingredients flexible formulations: This refers to building value via reducing dependency on scarce ingredients. This will be done by strategically analyzing long-term ingredient trends, researching for alternatives and developing scientific position papers.

Operations reducing the environmental impact: Value will be created by reducing by 50% carbon footprint in all operations till 2020. This will be achieved with an internal energy policy for factories, transport, waste and water management.

Operations to improve feed to food quality and safety: This refers to creating value, taking advantage of the growing worldwide demand for quality and safety, resulting in new policies and regulations. This will be done via specific Nutrace programs with standards and protocols (more information on the web of Nutreco).

Operations to improve working environment: This will be achieved by creating value via employee satisfaction and labor market position, building internal surveys and doing benchmarks worldwide to follow employee engagement.

Nutritional solutions that are sustainable: The aim is to create value till 2020 when sustainability will be fully integrated within the innovation process increasing the proportion of the portfolio having specific sustainability benefits. This will be done by quantifying sustainability, auditing and translating these benefits to marketing messages.

Nutritional solutions via farm and feed performance: This refers to creating value, enabling farmers to improve performance with predictive farm models and nutritional solutions that would improve production efficiency and reduce emission levels. This will be done by measuring availability, quality and usage of nutritional farm models, improvement of feed efficiency on the farms and reduction in emission levels.

Nutritional solutions via animal and human health: Value will be created by an effort to provide alternative technologies that would improve animal health and performance thus supporting customers needs to reduce antibiotic use.

Commitment and employee engagement: This refers to motivating employees to the challenge of feeding nine billion people in 2050, in a sustainable way. This value will be created using a system for internal engagement activities, integrating this as a central point for evaluation and reward systems.

Commitment and stakeholder engagement: This is achieved by creating value via strengthening the company's position in multi-stakeholder debates and initiatives around the sustainability challenges of the industry. There is an increasing level of cooperation and partnerships within the food chain and stakeholder organizing conferences, position papers, information flows, reputation surveys and other ways to engage.

Commitment and community development: Companies should create value enabling small farmers to raise productivity via knowledge sharing. This will be done by community development strategies, redefining expectations of local communities by continuing to refine this project with new strategies and criteria.

Nutreco's 2020 vision is an inspiring study to see how companies are moving to create and share value and improving sustainability toward the nine billion people planet.

Discussion question

Which of these learnings about sustainable initiatives and vision to 2020 could be applied in your company based on this discussion?

Part 2

Strategic Planning and Management for Food Companies

Chapter 31

The Consumer's Kingdom*

One of the most exciting topics to be analyzed in the last 30 years is the change in the marketing approach of companies, and even in the general public perception of the concept of marketing. In this chapter, I will talk about how I see this evolution and leave a list of questions that will prod companies to think and plan their marketing strategies. First is the so-called "wild view" of marketing that dominated the 1970s, 1980s and in some markets even during the 1990s which then led to incredible macro-environmental changes and the emergence of a new era of consumer sovereignty. Finally, I will talk about the guidelines and opportunities for companies that want to satisfy this very sophisticated consumer who today has multiple choices provided by competitive companies.

The era of the wild view of marketing is no longer prevalent in most industries, although some of them use such extinct ideas even today. This wild view considered marketing as the architect for pushing consumption, with aggressive advertising and sales campaigns. New products were designed for sales, mass consumption and profit, with short-term goals. Marketing was considered manipulative as companies had a narrow consumer orientation, with lack of measuring tools to assess customer satisfaction. Most companies did not listen at all to consumers. All organizational structure was designed for selling, short-term results and spot relationships.

At the end of the 1980s and beginning of 1990s, several environmental changes occurred in most of the countries and markets. I consider the most important as the widening of markets and internationalization, the rapid rate of technology change and progress, markets deregulation and increase in global competition, with some markets supplying more than the demand.

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* First published in *China Daily* (July 26, 2010).

Another bundle of important changes has come from the information and communication technology where the internet and the world wide web have increased the speed of socio-cultural changes of consumers. We see increased consumerist movements, growth of ethics among citizens' behavior and emergence of societal marketing movement (inclusion) as important changes in the last 20 years.

These changes have transported us to an era of consumer sovereignty, or an era of the consumer taking over production chains, redesigned toward satisfying this new king with a professional purchase behavior, new and growing expectations. This new era has prompted companies to understand that consumers value their time, expect well being, pleasant experiences and rewards, and have the freedom to exercise their choice. Consumers too became more aware of concepts such as "countervailing power" that could be exercised by companies (big suppliers) to secure best prices for its customers, so if they felt that some companies were not exercising this power, they moved to other competing companies and choices.

Consumer rights began to take center stage. Use of rapid communication processes, discussion groups, web-based complaints and new media have increased risks for companies that were not consumer-centric. Figure 31.1 shows an overview of the factors that drive the sovereignty of consumer.

To better explain the figure, it is important to understand the sovereignty of consumer-centric companies that want to conquer markets and win competition by adoption of new strategic behaviors. In essence, they need to be demand-driven. Such strategic behavioral trends would include collecting information about (1) the consumers, (2) competitors, (3) environment, and (4) to obtain a deep analysis and quick reaction to environmental changes.

Companies have switched to a long-range approach, valuing satisfaction and well being of buyers. They are new integrated network organizations, dynamic and harmonic, decentralized with delegation and designed with a problem–solution-based approach. This approach considers "from trying to sell, to helping to buy." There is a continuous search for newer ways to solve existing needs, launching value-added solutions that consider and value corporate social responsibility, smooth and collaborative network with suppliers, distributors and service providers, with a strong focus on smart market segmentation, knowledge generation and dissemination, and measurable/accountable marketing.

Adoption of such behavioral strategies has successfully led the companies to meet the growth in demand, implement democratic systems and include all segments associated in marketing a product. The target is to have very satisfied consumers with repeated purchases, what is called the "lock in" strategy. Companies are keen to build relationships and informal contracts with consumers that can even blind them toward competitors, increase their cost to change to another company, building a sustainable competitive advantage, with growth and profitability.

In Table 31.1, you will find 14 questions that can be considered for deliberation by companies desiring to improve their consumer focus.

Let's call them the "Consumer's Kingdom 14 Questions."

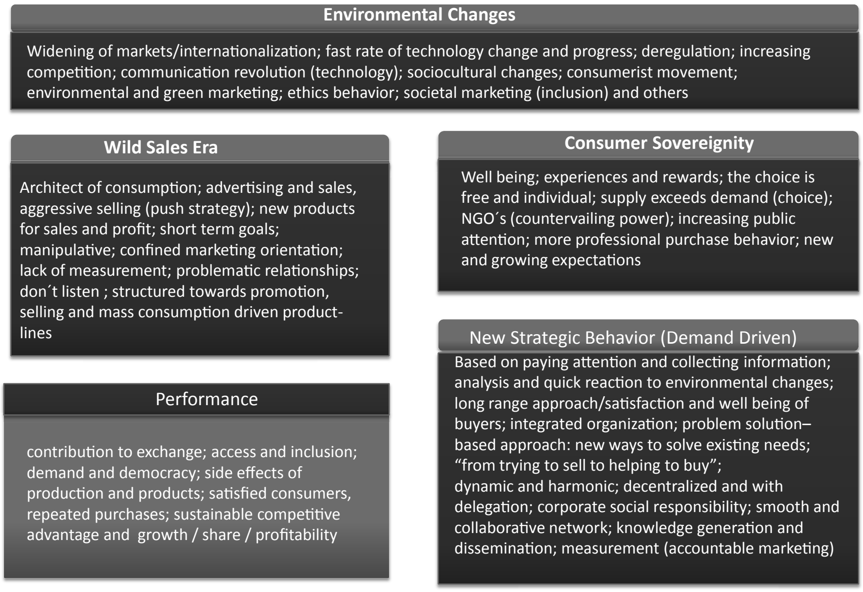


Figure 31.1 The consumer´s kingdom.

Source: Author.

Table 31.1

Consumer´s Kingdom 14 Questions…
1. How to pay attention and collect information about the consumers?
2. How to pay attention and collect information about the competitors?
3. How to pay attention and collect information about the environment?
4. How to have a deep analysis and quick reaction of environmental changes?
5. How to do a long-range approach valuing satisfaction and well being of buyers?
6. How to build an integrated organization, dynamic and decentralized?
7. How to move using a problem-solution-based approach?
8. How to continuously search for new ways to solve existing needs?
9. How to build a corporate social responsibility method?
10. How to have a collaborative network with suppliers, distributors and service providers?
11. How to have a strong focus on market segmentation?
12. How to induce knowledge generation and dissemination?
13. How to measure marketing activities ?
14. How to do the "lock in" strategy (loyalty of consumers?

Discussion question

List ideas for your company based on your answers to the 14 questions. Which processes could be changed, which projects could be created?

Chapter 32

Developing Offers in Tune with Consumer Movements*

In this chapter, we discuss consumer movements. A framework is offered that could be used as a catalyst by organizations to formulate demand-driven plans and acts. With advancements in digital media and emergence of new forms of communications, we face an era where consumers are stronger. Communication platforms, group discussions, complaining sites and others have empowered the consumers hugely.

The possibility of protesting and really damaging brands and images have become stronger, and almost for free. Consumers just need to use the existing platforms, and if it gains a viral expansion, reaches audiences all over the world.

On the other side, concerns about environment, people, planet, local communities, small companies, overconsumption and several other topics have increased within consumer groups and organizations (companies). Several practices of what is called "corporate social responsibility (CSR)" have gained attention in the last decade where companies involved in these topics are anticipating their movements, discussing these topics from the beginning of any project.

The idea in this chapter is to share several questions that may help a company in formulating a new offer or product to the market, already linked to the emerging needs.

I will divide the questions in four major blocks. The first will address questions related to environmental and green movements. The second block will address consumerist movements that are well known for criticizing the sales and marketing approaches of companies, and are linked to responsible consumption. The third block, slightly linked to the second, is the societal concept of marketing, which means more inclusion, more linkages to social causes and others. The fourth block considers questions related to ethics, rights and regulatory framework, mostly coming from governments, but also raised by NGOs and other similar types of organizations.

* First published in *China Daily* (November 23, 2012).

Table 32.1

Questions related to environmental and green movements
What is the amount of resources used to produce (water, air, energy, fuel used to produce and transport)?
Recycling and reverse logistics are possible?
How to do disposure and retrieval of waste generated?
Which certifications will be most valued?
Can compensations programs be offered?
Is the offer improving quality of life?
Is it healthier than other alternatives?
Which are the most important groups and NGO's to build a relationship?
How to link to these groups?

Table 32.2

Questions related to consumerist movements:
Is the offer bringing long-term satisfaction?
Is it designed for well being of buyers?
Is it technology based or just to promote marketing and sales?
Is it designed to bring over consumption?
Does it bring a buyer-seller equilibrium?
Is the functional value clear?
Is need satisfaction considered as a first objective of the offer?
Will consumers perceive this?
Which are the most important groups and NGO's to be, in some way, linked to the company?
How to link to these groups?

Table 32.3

Questions related to societal movements:

- ✓ Is the offer promoting social development?
- ✓ Is the offer promoting inclusion?
- ✓ Does it promote individual or collective well-being?
- ✓ Is it promoting local communities development?
- ✓ Can it apply for fair trade?
- ✓ Is the company controlling the behavior and practices of its suppliers?
- ✓ Does it have a clear, written and will communicated "corporate social responsibility" policy?
- ✓ Employees satisfaction and well being is considered?
- ✓ Which are' the most important groups and NGO's to be, in some way linked to the company?
- ✓ How to link to these groups?

Table 32.4

Questions related to ethics and regulatory issues:

- ✓ Is the offer taking care of all ethic concerns?
- ✓ Is it adjusted to the institutional (regulatory) environment ("rules of the game") of the country or region?

Table 32.5

Developing Offers in Tune with Consumer Movements…

Environmental/Green	Consumerist	Social	Others (ethics/rights/regulatory
What is the amount of resources used (water, air, energy)?	Is the offer bringing long-term satisfaction?	Is the offer promoting social development?	Is the offer taking care of all ethic concerns?
Recycling and reverse logistics are possible?	Is it designed for well being of buyers?	Is the offer promoting inclusion?	Is it adjusted to the institutional (regulatory) environment ("rules of the game") of the country or region?
How to do disposure and retrieval of waste?	Is it technology based or just to promote marketing and sales?	Is it promoting local communities development?	
Which certifications will be needed?	Is it designed to over consumption?	What are the economic or people side effects?	
Can we offer compensations programs?	Does it bring a balance equilibrium buyer seller?	What are the economic/people side effects?	
Is it improving quality of life?	The functional value is clear?	Can it apply for fair trade?	
Is it healthier?	Is need satisfaction considered as a first objective of the offer?	Is the company controlling the behavior and practices its suppliers?	
Is it linked to the movement of smaller portions avoiding waste?	Will consumers perceive this?	Does it have a clear, written and will communicated "corporate social responsibility" policy?	
What is the impact of transport, logical systems and usage of infrastructure?	Is the new offer a solution to simplify procedures?	Employees satisfaction and well being is considered?	
Which are the most important groups and NGO's to be, in some way, linked to the company?	Which are the most important groups and NGO's to be, in some way, linked to the company?	Which are the most important groups and NGO's to be, in some way, linked to the company?	
How to link to these groups?	How to link to these groups?	How to link to these groups?	

Discussion question

Answering these questions will help your company anticipate reactions and conceive the most appropriate offer or product designed to satisfy consumer movements. Radical movements and unreasonable demands should not be reciprocated by the company and should be monitored and even avoided. The questions in this chapter will enable companies to generate ideas for the design, integrated communication and "go to market" strategies.

Chapter 33

Demand-Driven Organizations*

Nowadays, consumers live in an era of choices. And I want to discuss the reasons why some companies and organizations are winning the approval of consumers and securing successful results. This chapter is based on my observations of what the organizations share, how they behave and how they act. Let us move to the 10 qualities of "demand-driven organizations."

1. *They listen and pay attention.* This is a great characteristic, since to pay attention requires utmost sincerity and concentration and it is incredible how we deal everyday with companies that are closed to information.
2. *They do not fear evaluation.* In several organizations, we observe a tendency to avoid establishing formal and informal evaluation procedures, because they believe evaluation would place their people under pressure.
3. *They dedicate a formal time to think.* Time to think nowadays is rare since it costs. We have to pursue financial and sales targets in the midst of persistent disturbances from communication gadgets; for instance, when you are in the middle of a brainstorming session, a new email arrives or a mobile phone rings. Technology has made us much more accessible to people, but the flip side is the continuous interruption in thinking processes.
4. *They analyze and exercise macro-environmental changes.* Organizations are keen to observe developments in political, legal economic, socio-cultural and technological areas. These demand-driven organizations analyze how these trends and movements affect them.
5. *They perform mental simulations of possible future changes and their impacts, anticipating movements and reactions.* It is the "and if?" question. They exercise these questions about possible future changes and the impact.

* First published in *China Daily* (December 16, 2010).

6. *They possess the high stakeholders touch.* Establishing closer linkages and connection to stakeholders (consumers, clients, suppliers, distributors, government, shareholders, banks) via several strategies such as open lines of communication, own stores, consumer labs, and digital platforms and empowering their people that are in direct touch with consumers.
7. *They share a sense that they are owned by the consumer.* The value of the organization is the value given by the consumer, having a clear understanding of the consumer problems and the problem-solving capacity of the organization. This requires a mindset change in employees.
8. *They do not fear change.* In several companies, we face an accommodation process where people do not try to overcome their indifferences, they think nothing is possible, nothing works. This behavior must be changed with stimulus or if it doesn't work, by... the yardstick "If people don't change, let's change people."
9. They exhibit entrepreneurial and innovative behavior. I explored this in the chapter, also called "building an innovative concept." We see that demand-driven companies always introduce new concepts and solutions for societies.
10. *They share discipline to make things happen*. They take notes and they action their development plans.

Table 33.1

Demand-driven organizations — 10 points

10 points	Questions	List your Ideas for your Company
1 - They listen and pay attention		
2 - They don't fear to be evaluated		
3 - They dedicate a formal time to think		
4 - They analyze and exercise macro-environmental changes		
5 - They perform mental simulations of possible future changes and their impacts, anticipating movements and reactions		
6 - They possess the high stakeholders touch		
7 - Demand-driven organizations share a sense that they are owned by the consumer		
8 - They don't fear change		
9 - They exhibit entrepreneurial and innovation behavior		
10 - They also share discipline to make things happen		

Source: Author

Here, we have a working list for people that are managing organizations. These points could be transformed into questions. Share with your management team and employees and prompt them to give ideas for your organization on how to improve in each of these 10 points to realize the "demand-driven organization" concept.

Discussion question

How to improve your company based on the 10-points table?

Chapter 34

Questions toward a Demand-Driven Orientation*

This chapter raises some questions for organizations that would encourage them to position themselves according to the changing and evolving wishes of consumers' demands.

A demand-driven organization has a continuous holistic approach to develop and promote solutions, with higher value for the organization, for its direct and indirect consumers and also for all stakeholders involved.

Within the market in which an organization operates, there is a wide range of actors that mutually benefit within the trade process, such as consumers, distribution channels, competitors, suppliers and others.

For an organization to be strongly guided by the changing demands, it needs an efficient market information system, which monitors the macro-environment and all the actors that relate directly and indirectly with the organization.

Internally, it is vital to have a cross-functional coordination, where all departments are aligned creating the demand-driven culture.

In this chapter, I offer some questions that would prompt organizations to create ideas that could be more demand-driven. The questions are presented and divided according to the most relevant target audiences of a company — the final consumers, distributors, government, suppliers, noncompetitors and service providers.

The following items and the summary table show the possible market players of an organization and propose questions that serve as a guide for its positioning.

*First published in *China Daily* (November 26, 2010).

For the final consumer, some important questions would be:

— How to deliver great value and build loyalty?
— How to understand the segments of consumer?
— How to anticipate trends?
— How to offer solutions?
— How to monitor the feedback?
— How to build consumer laboratories, places for interactions?
— How to improve the linkage and connectivity with consumer?

For the distribution channels, some important questions would be:

— How to improve the performance of channels in terms of profit and traffic generation?
— How to offer complete solutions?
— How to build channel incentive programs?
— How to reduce transactional costs with distributors?
— How to participate in private label strategies?
— How to improve the flows from the organization to the channel?

For the government, some important questions would be:

— How to contribute more with the government (helping international agreements, improving regulation systems and controls)?
— How to better use the available public resources (financing, research development institutes and others)?

For the competitors, some important questions would be:

— How to make the organization open to strategic alliances, joint ventures, collective actions in a proactive approach?
— How to better participate in horizontal associations?
— How to improve ethics and standards of the industry?

For the non-competitor companies, some important questions would be:

— How to make the organization open to strategic alliances, joint ventures and other types of collective actions in a proactive approach?
— Is the organization structured for this?
— How to stimulate benchmarking?

For the input suppliers, some important questions would be:

— How to monitor and stimulate supplier‘s sustainability and security procedures?
— How to improve cost and efficiency (value) of inputs?
— How to lower transaction costs with suppliers?
— How to innovate toward sustainable and renewable inputs?

For the service providers (financial institutions, certification, transport, insurance, communication, digital support and information technology), some important questions would be:

— How to have the best value service providers linked to the organization?
— Which services would need to be provided for the best functioning of the contractual networks? And, what mechanism would you deploy to provide such services?
— Are services sensitive or affected by the final consumer buying decision process? If yes, how?
— How to reduce transaction costs related to service providers relationships and contracts?
— How to monitor and stimulate the service provider's sustainability and security procedures?

I hope these questions would be found useful for internal workshops or even external interviews in achieving the organization's goal to be more demand-driven.

Table 34.1

A FRAMEWORK FOR A DEMAND DRIVEN BEHAVIOR

FINAL CONSUMER	DISTRIBUTION CHANNELS	GOVERNMENT	COMPETITORS	NON COMPETITORS	INPUT SUPPLIERS	SERVICE PROVIDERS
- How to deliver great value and built loyalty?	- How to improve the performance of channels in terms of profit and traffic generation?	- How to contribute more with the government (helping international agreements, improving regulation systems and controls)?	- How to make the organization open to strategic alliances, joint ventures, collective actions in a proactive approach?	- How to make the organization open to strategic alliances, joint ventures and other types of collective actions in a proactive approach?	- How to monitor and stimulate supplier's sustainability and security procedures?	- How to have the best value service providers linked to the organization?
- How to understand the segments of consumer?	- How to offer complete solutions?	- How to better use the available public resources (financing, research development institutes and others)?	- How to better participate in horizontal associations?	Is it structured for this?	- How to improve cost and efficiency (value) of inputs?	- Which services and how they need to be provided for the best functioning of the contractual networks?
How to anticipate trends?	- How to build channel incentive programs?		- How to improve ethics and Standards of the industry?	- How to stimulate benchmarking?	- How to lower transaction costs with suppliers?	- How services are sensitive or affected to the final consumer buying decision process?
How to offer solutions?	- How to reduce transactional costs with distributors?				- How to innovate towards sustainable and renewable inputs?	- How to reduce transaction costs related to service providers relationships and contracts?
- How to monitor the feedback?	- How to participate in private label strategies?					- How to monitor and stimulate the service provider's sustainability and security procedures?
- How to build consumers laboratories, places for interactions? - How to improve the linkage and connectivity with consumer?	- How to improve the flows from the organization to the channel?					

Discussion Question

How to make your organization more demand-driven based on the questions raised?

Chapter 35

Strategic Planning Satellite*

In an interesting and creative way, I gathered 15 words that are of fundamental importance for strategic planning and management nowadays, starting with a letter "P" and designed a satellite with the word "planning" at the center. The environment of planning is a satellite which must be at the genetics of each company that strives to prepare itself against a possible turbulent future. Below, you will find the 15 P's of strategic planning along with my descriptions.

1. **Prevision:** We must improve our capacity to predict what may happen in the future, as in macro-environmental changes and impacts, before they actually happen. Make the surprise and not be surprised.
2. **Public policies:** There will be an increasing role of public policies and government regulations over companies in the following years. We must follow them, deliberate using our associations when necessary and be prepared to face them. Examples include marketing directed at kids and those involving global financial regulations.
3. **Planet:** Importance of environment and planet-related issues must be part of our planning topics.
4. **People:** Growth will also be witnessed in corporate social responsibility schemes and a company's relations with its employees, shareholders and stakeholders. There is growing attention among consumers and media over these subjects.
5. **Productivity:** There is pressure on companies to effectively use scarce resources and to deliver more at lower costs. This movement showcases the need for improved productivity.
6. **Profit:** The world faces a globally connected shareholder asking and comparing for value delivery with several options of investments. So, profit will be the key driver to secure finance. This is crucial for planning.

* First published in *China Daily* (September 2, 2010).

7. **Partners:** The company is an integrated network, a bundle of contracts, with alliances and joint-ventures. We must have the best partners in our business models.
8. **Proactiveness:** Mere planning without implementation does not work. We must develop an internal culture and behavior to ensure that plans are implemented, and for that, proactiveness of people and company is essential.
9. **Providers:** There is a permanent need to reorganize supply chain and service providers toward value and inclusion of small holders. As I have already discussed earlier, I believe inclusion is one of the most important topics in the future, and companies will be valued by their capacity to promote inclusion of small holders.
10. **Processes:** In planning our activities, we must adopt procedures/processes that offer a more simple way of doing things, saving time, resources and promoting simplicity.
11. **Portfolio:** From a marketing point of view, companies must offer products and services that provide "solutions to customer´s problems." We must have an adequate and harmonic portfolio of products and businesses.
12. **Place:** More than the traditional marketing channels, the place where our products are found should be targeted as points of contacts and sales with consumers, promoting convenience, exchange of information and experiences.
13. **Promotion:** With new forms of media, promotion should be considered as an integrated communication activity to maintain permanent flow of information to markets and consumers.
14. **Pricing:** When planning prices, we must have an integrated creative pricing strategy to increase value for the company and its shareholders along with consumer satisfaction and benefits given with the acquisition process.
15. **Projects:** Finally, in any planning process, we need to adopt a formal project management approach to achieve proactiveness and planning. Plans and proactiveness, without organized projects, may not contribute to efficiency.

How to use this list to improve our planning capacity? Below, you have a suggestion of how to use the 15 P's. In each of them, you could ask how your company is performing, how you may improve, what are the good ideas, and which of these could be benchmarked. After that, you can list ideas and probable opportunities for your company.

Table 35.1

Strategic Planning Satellite

	Questions	List ideas and opportunities for a Company
1. Prevision	Capacity to see what may happen before happening	
2. Public policies	Increasing role of government regulation	
3. Planet	The growth of importance of environment and planet-related issues	
4. People	The growth of importance of corporate social responsibility and relations with employees	
5. Productivity	A pressure for better use of scarce resources	
6. Profit	Globally connected shareholders asking and comparing for value delivery	
7. Partners	A new vision of the company as an integrated network, a bundle of contracts, alliances and joint-ventures	
8. Proactiveness	An internal culture and behavior to implement the plans	
9. Providers	A need to reorganize supply chain and service providers toward value and smallholders inclusion	
10. Processes	Review all procedures toward a more simple way of doing things	
11. Portfolio	Offer products, services in a "solution of customer´s problems" approach	
12. Place	Have good point of contacts and sales with consumers, promoting convenience	
13. Promotion	Integrated communication activities to have a permanent flow of information with markets	
14. Pricing	To have an integrative and creative pricing strategy to increase at the same time value and consumer satisfaction'	
15. Projects	Organize proactiveness and planning in a project management approach to make things happen in a structured way	

Source: Author

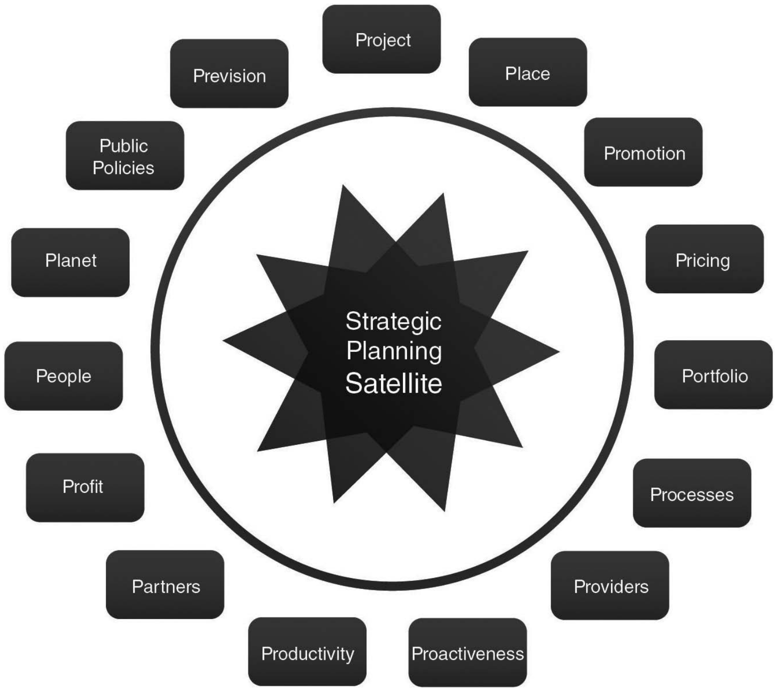


Figure 35.1 Strategic planning — The 15 P's.

Source: Author.

Discussion question

How do these issues affect your company and which projects could be implemented in your company?

Chapter 36

The Company is an Integrated Network in the New Era*

All companies must understand that they are not isolated anymore. They operate in a complex network, interacting with suppliers, buyers, consumers, competitors, government and other agents. Companies are a bundle of contracts of all sorts, types and ages. The first step for an executive or an academic is to describe and draw this complex network on a piece of paper, and then expand it, so all employees in a company appreciate the overview that they are not isolated and researchers too can observe several other interactions. What happens to the external environment affects the company; if something happens to a buyer or a supplier, the company is also affected. We must all remain vigilant, paying attention to events related to the company and anticipating the next events and how such events might affect our company.

Marketing is often seen as a facilitator for transactions that may occur between companies. Companies are more and more interdependent and interrelated, literally forming networks. Companies that network are effectively used in research, to study its segmentation, differentiation, product, price, distribution channels or communication.

Therefore, the theoretical model of the company network can be defined as a group of supplier and distributor companies where such network process is carried out (focus company). These companies perform traditional flows of products, services, communication, information, orders and payments necessary to connect the suppliers of raw materials used in the production to the end consumers of their products or products processed from the original products.

The concept of networks varies according to the amplitude of the "zoom" used — in other words, the "network of a company." In this sense, it is the process of analyzing a

* First published in *China Daily* (September 2, 2010).

company and its group of suppliers and distributors, the existing relations between them and their relation with the environment. It is in essence an interaction and relationship approach.

What are the advantages of looking at the company as a network? Instead of merely considering the selling company as the active party and the purchasing company as the reactive party, the network perspective views companies as belonging to a network of businesses made of a large number of active and heterogeneous companies that interact among themselves and seek solutions for their different problems.

Companies are interdependent for sales, purchases, information, technology development and to access other companies in the network.

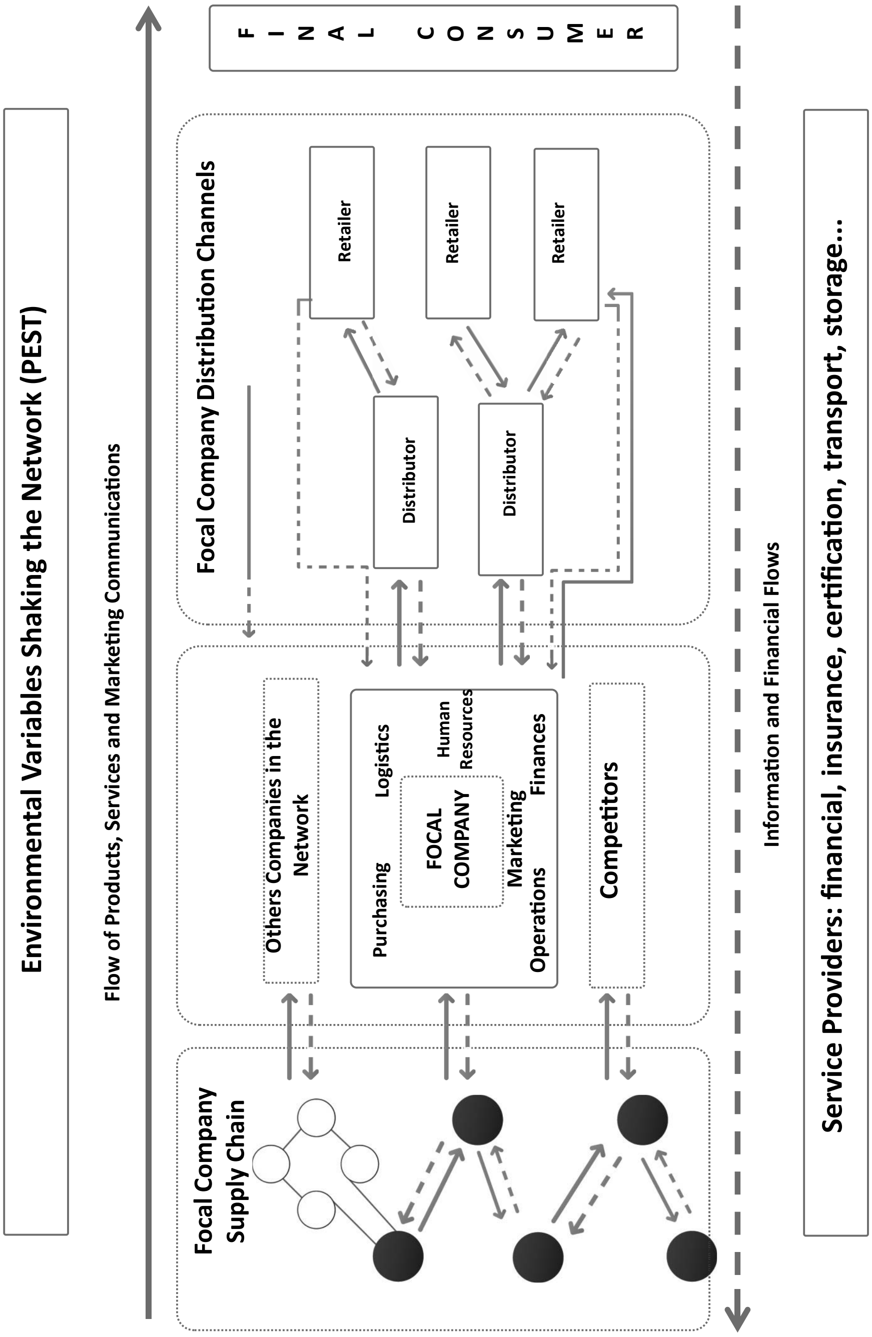
Instead of considering a company as the holder of all resources, abilities and technologies needed to select and develop its strategies, the network perspective infers that no company has all necessary resources, abilities and technologies, but depends on the interaction with suppliers, clients, distributors, partners and even competitors. Thus, the collective actions and the understanding of the "network zoom" are important for the planning process.

The network of the company also allows the addition of facilitator companies, for example, freight forwarders, insurance companies, certification companies, warehousing, logistics operators and others. Such a study also highlights the company's interfaces with other networks, whether in obtaining raw materials or by-products, the inversion of the network (common in cases of recycling or returning via recall, that demand the participation of the distributors) and the impacts brought by uncontrollable variables (political and legal/institutional, economic, social and cultural, and technological environments).

Furthermore, inclusion of competitors in the company's network encourages developing strategies for collective actions that the companies can pursue in marketing (e.g., it may range from participating in a sectoral association to creating a joint export venture between competitors). Figure 36.1 illustrates an example for the design of a company's network.

The first component is the distribution channel, and the second is the company's supply chain, which is the opposite of the first component. In other words, these are the organizations involved in the supply of all materials that the company needs to produce and sell. This way, marketing considers the part that goes from the company to the market. Logically, aspects such as material quality, scarcity, supplier's brands and other aspects related to the company's supply chain have an enormous impact on its marketing, and need to be monitored closely. At the same time, areas such as human resources, finance, production, administration also have an impact on marketing.

The marketing variables are divided into product, communication, distribution, sales force and price, with the objective of making their understanding and planning easier. However, marketing actions must be totally integrated and coherent. Marketing errors happen precisely because of lack of integration among these tools.



Source (citation): Neves, Marcos Fava - The Future of Food Business, World Scientific (2013).

Figure 36.1 The company as an Integrated Network – Conceptual Model.

It is common to have an exaggerated communication pitch, not corresponding to the true attributes of the product, or lack of products at the point of sale while putting out a specific advertisement, or even a sales force which is not prepared to offer a product with high technical specificity.

In the network illustrated in Figure 36.1, the role of the marketing professional is to manage the relationship between the company and consumer market. There are other professionals in the company who deal with marketing principles and work with supply chain management, in other words, behind the scenes. Companies need to look permanently to their supply chains to reduce costs, buy from the best available sources from all over, try to find products or ingredient substitutes and test quality and adaptability to see if they fit. Another source of losses in the supply chain has to do with inventories. There is a need to build safe and secure continuous supply chains, in order to minimize inventories and losses due to transport inefficiencies and redundancies, while also reducing transaction costs. Companies need to think of rationalizing packaging costs and search for alternatives. And, finally, always ask how this could be done better.

Discussion question

Describe the network of your company with as many details and participants as possible.

Chapter 37

Food Companies' Strategies in the Network Era*

In this chapter, I want to list some of the most important strategies for competition in the coming years, which I consider the "network era", applicable to companies operating in food markets and other markets in the food supply chain (see Figure 37.1).

The first relates to the ***integrated network approach***. As already written in the previous chapter and repeated here, all companies must understand that they are not isolated any longer. They operate in a complex network, interacting with suppliers, buyers, consumers, competitors, government and other agents. Companies are a bundle of contracts of all sorts, types and ages. The first step for an executive is to describe and draw up this complex network on paper, and then expand it, so all employees in the company appreciate the overview of its activities, showing that they are not isolated. What happens in the external environment affects the company. If something happens to a buyer or to a supplier, the company is also affected. We must all stay alert, pay attention to events around us and anticipate events that may happen and how the company might be affected.

The second strategy relates to ***supply chain optimization***. Companies need to constantly look at their supply chains to reduce costs, buy from the best available sources from all over, and try to find products or ingredient substitutes as well as testing quality and adaptability to see if the product fits their criteria. A source of losses in the supply chain has to do with inventories. There is a need to establish safe, secure and continuous supply chains, in order to minimize inventories and losses due to transport inefficiencies and redundancies, which also reduce transaction costs. Companies need to think in terms of rationalizing packaging costs and seek alternatives. Always ask "How can we do this better?"

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* First published in *China Daily* (November 6, 2009).

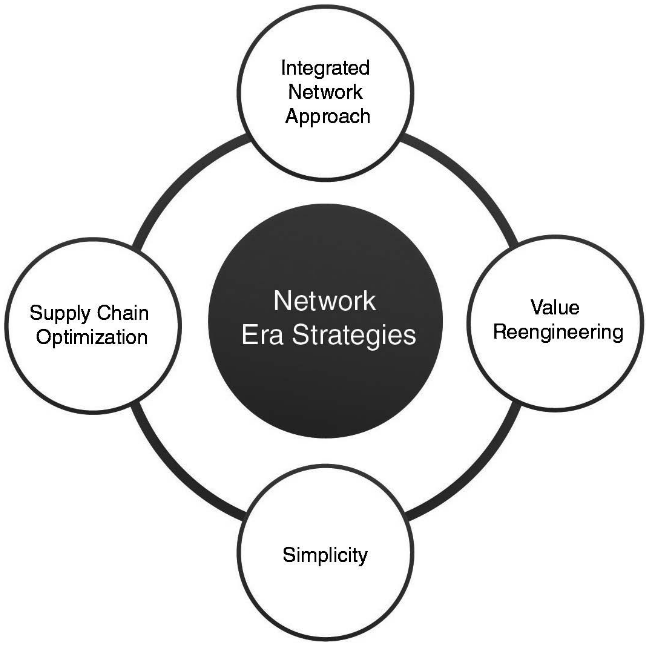

Figure 37.1 Networks era strategies.

In times of compressed margins and global competition, a third bundle of strategies deals with ***marketing***. Companies have to do what I call ***value re-engineering***, which means evaluating your product line with a lens on "how to capture more value." Companies should reconsider their marketing jargons and how to make them more effective, whether packaging and the related description should be modified, and so on. When launching new products, companies should have a clear focus, a message content that is easy to understand, and conduct as much research as possible to avoid risks of failure. Margins today are shrinking, and therefore, cannot be used to compensate for failed launches. Margins from existing products should not be diverted to supply funds to support failures with regard to new launches.

In marketing, ***simplicity*** is the buzz word in this new era. Companies should simplify market segments, give more attention to cash generating products and have a very clear consumer focus. Communications (advertisement and others) should be carried out with a deep understanding of its potential costs and impacts. There is no time any more for media exposure without a clear understanding of the return in terms of value that a company is receiving from its investments.

It is a new era of understanding the behavior of consumers, and more importantly, understanding that the consumer does not want to pay for your inefficiencies over the supply chain and inefficiencies in companies' marketing activities.

Table 37.1

Integrated Strategies for Competition

Integrated Strategies for Competition	Important Topics
1 - Integrated Network Approach	✓ Companies are not isolated; ✓ They operate in a complex network, interacting with suppliers, buyers, consumers, competitors, government and other agents; ✓ What happens in the external environment affects the company.
2 - Supply Chain Optimization	✓ Companies need to look at their supply chains to try to reduce costs; ✓ Try to find substitute products or ingredients that fits their criteria; ✓ To establish safe, secure and continuous supply chains; ✓ Minimize inventories and losses due to transport inefficiencies and redundancies; ✓ Think in terms of rationalizing packaging costs.
3 - Marketing (value re-engineering and simplicity	✓ Companies have to be looking at their product line with a perspective of "how to capture more value"; ✓ Companies should have a clear target when they launch a new product; ✓ "Simplicity" is the word for the new era; ✓ Have a very clear consumer focus; communications (advertisement and others) should be done with a deep understanding of its costs and impacts.

Discussion question

How can you improve the activities of your company based on the three major strategies (using Table 37.1)?

Chapter 38

Planning Strategies for 2025*

In this chapter, I share important ideas which, in my opinion, will contribute in shaping the food industry in its strategic planning processes and overall positioning strategies of companies, consumers and governments, over the next 10 years.

Empowerment: In the next 10 years, companies, networks and productive chains will be more valued by consumers if they include the base of the pyramid (small holders) and develop social responsibility (working conditions and others). We will also see the growth of fair trade networks. Inclusion will be a topic of growing demand in the following years. Building sustainable incentives for coordination (association/cooperatives) will be the central role for governments.

Integration of economy: A more integrated economy gives importance to the developing countries' supply chains and marketing channels that act as sources/alternatives for supplying to developed world consumers.

Income distribution: There is a huge internal market growing in several parts of the world, and these emerging consumers should be studied more extensively by companies for their positioning. The impact of these new consumers on the planets capacity to produce (e.g., from grains to proteins) is, however, a major concern.

Climate and environment (conservation): This issue will gain even more importance in the next 10 years, since climate change is a reality. Companies should focus on low-carbon networks (carbon footprint and management), networks adaptation to climate change, renewable energy networks, environmental certification, resource usage efficiency, network reversal (material reuse and recycling) and network integration for optimization of usage of byproducts.

Technology: Being the drivers of cost reduction, consumers will value transparency in companies' networks, information exchange and technology systems that would result in hi-tech, but also the "hi-touch" networks. Companies and their networks should ideally be driven by consumers and there should be frequent communication with consumers on an individual basis.

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* First published in China Daily (December 7, 2009).

Merging of industries: The next 10 years will be special in the merging of industries, like what happened with mobile phones that also perform the role of camera, computer, watch, voice recorder, radio and other such devices all within a tiny piece of equipment. The world will see the growth of nutraceutical networks (food and pharmaceuticals), nutricosmetics networks (food and cosmetics), nutritouristic networks (food and the tourism business) and nutricar networks (food and biofuels).

Risk management: An integrated network risk management and mitigation will be of fundamental importance in this connected world. Several risks are present in a global perspective, such as financial, plagues and diseases, sustainability, security and just in time.

Communication: Communication is already undergoing major changes with new network communication systems that enable proactive network communication with stakeholders and other partners in the inclusive supply chain. Such advancements would also help in identifying trends for the company's products and that of competitors. Communication with the hi-tech communication savvy consumer will be a challenge for companies.

Era of simplicity: Simplicity will be valued, in the way the company manages its network and market segmentation, launch of new products, brand management, services, costumer focus, and sales. Simplicity is the keyword for the next 10 years!

Network value engineering: Finally, it is an era of periodically reviewing company's integrated network and supply chain; marketing channels' value capture and consumer intimacy. It is also an era of continuous evaluations of contracts and building trust in relationships.

Table 38.1

10 Major Topics	
1. Empowerment	➔ Chains and networks inclusion of the base of pyramid (smallholders); ➔ Chains and networks social responsibility (working conditions); ➔ Fair trade networks; ➔ Margins allocation and distribution.
2. Integration of Economy	➔ Developing countries supply chains (trade barriers relief); ➔ Developing countries marketing channels.
3. Income Distribution	➔ Emerging consumers and chains and networks positioning; ➔ Building incentives for coordination (associations and cooperatives); ➔ Neo-consumption (volumes/grains to proteins).
4. Climate and Environment (preservation)	➔ Low-carbon networks; ➔ Chains and networks adaptation to climate change; ➔ Renewable energy networks; ➔ Measurement and certification of chains and networks; ➔ Chains and networks resource usage efficiency / optimization of usage of by-products; ➔ Network reversal (re-use of materials or recyclable inputs).
5. Technology	➔ Chains and networks transparency and information exchange; ➔ Consumer "hi-touch" networks; ➔ Innovation-driven networks.
6. Merging of Industries	➔ Nutraceutical networks; ➔ Nutricosmetic networks; ➔ Nutritouristic networks; ➔ "Nutri-car" networks.
7. Risks	➔ Integrated chains and networks risk management and mitigation; ➔ New markets risks (carbon footprint).
8. Communication	➔ New media chains and networks communication; ➔ Proactive chains and networks communication with stakeholders; ➔ Origin and processes (inclusion); ➔ Traceability.
9. Era of Simplicity	➔ Chains and networks management; ➔ Market segmentation; ➔ New product launching; ➔ Costumer focus.
10. Network Value Re-engineering	➔ Supply chain redesign; ➔ Marketing channels value capture; ➔ Collective actions in chains and networks

Discussion question

List your ideas and projects that emerge from these 10 megatrends of the next decade.

Chapter 39

Questions to Think "Out of the Box"*

In one of our classes at the University of São Paulo, we dedicated a session to read and discuss the management behavior of Steve Jobs, based on a book and a recent article at Harvard Business Review, both written by Walter Isaacson, that tells "the real leadership lessons from Steve Jobs."

It is an interesting reading about a person and a style that created one of the most spectacular companies in the last century: Apple. After the readings and the class discussion, I was motivated to raise several questions that characterized his behavior and Apple's behavior, together with other questions created by our team to help in a strategic planning discussion. This chapter covers all these questions.

Here are the questions:

1. How can a company use the concept of building relationships in its value chain and which among such relationships could be profitable to the company?
2. How to personalize (customize) the companies offer in order to satisfy individuals in a cost effective way?
3. How to organize an entire service package in a selling relationship to a particular customer in order to make his purchasing experience interesting and also profitable for the company?
4. How to list and how to decide what will not be done by the organization, in terms of business, products, services or other activities, or even by individuals?
5. What are the 10 most relevant things we, as a company, will do next?
6. In which of these 10 relevant things should we, as a company, focus?
7. How to simplify the company's offer to the consumer?

* First published in *China Daily* (August 27, 2009).

8. When analyzing the whole purchasing experience or the product usage process, which parts are not needed and could be removed?
9. Which alternatives would be time saving for our clients?
10. In order to understand our competitors behavior, a nice question to ask is how can we cannibalize our offer?
11. About forecasting the future, an intriguing question is how to read things that are not yet at the page?
12. In order to be more effective in our activities, or within our companies projects, how to get our minds around it (a particular activity) and do it (make it happen)?
13. How can we improve our "face to face" interactions, or the personal touch of the company?
14. In order to have, at the same time, a broader and a specific view of a particular situation or about a business, how to capture the big picture and also the details?
15. In order to promote better management with a scientific approach, what are the ideas to integrate people (humanities) to science?
16. In order to create great teams in our companies, how to recruit, maintain and motivate talents?
17. In order to improve the possible positive influence, how to use/spread personal skills of the leader within the organization?
18. Intuition may help collaborate in several decision-making process, bringing sensitivity and the human part of business, and for this to happen, how to take advantage and also to filter the effects of intuition?
19. How to transfer the admired concept and DNA of the company to the offer (product + service)?
20. How to permanently reset (innovate/rethink) the company in order to create an organization that may revolutionize people's lives or even the business's history in a sustainable and profitable way?

This chapter is our contribution upon reading about Steve Jobs and Apple, in order to help managers of private and public organizations. It is a list of 20 questions to be discussed in meetings in order to generate possible answers that would provide great ideas and subsequently, structured projects for improving the value of the organization.

These could be selected according to a criteria of the 5 to 10 most relevant ones for the organization, since some of them will generate similar answers. Hope this chapter would be considered as a useful management tool.

Discussion question

Select 10 questions most relevant to your company and try to answer them.

Chapter 40

Strategic Planning of Clusters*

In May 2011, around 300 cluster practitioners from 10 different countries met in the city of Ouro Preto, in Brazil, considered as a world heritage for its old architecture and churches. This inspirational environment with a perfect organization conducted by SEBRAEMG was a stimulus to discuss important topics and challenges related to clusters.

For the ones not familiar with this concept, a cluster is "a geographic concentration of interconnected businesses, suppliers, and associated institutions in a particular field. Clusters are considered "to increase the productivity with which companies can compete, nationally and globally" (from the Free Dictionary website). Michael Porter was one of the first authors to study and write about this collective actions initiative.

First, there is a common sense that clusters are facing huge pressure due to global environmental changes. The fact is that these global changes and impacts are speeding dramatically, turning the clusters' environment much more complex to understand. The major changes affecting cluster's planning and management are higher exposure to global competition and currency exchange rate war, an increase in volume and speed of financial flows with a business concentration model toward scale economies, efficiency and cost controls.

Clusters also face increasing risks (for e.g. not adhering to financial and sanitary standards, erosion in image among others), the emergence of new business models, growing importance of services-based economy and the rapid rate of innovation and technology change. The government's changing role toward the regulation of economic activity is another challenge to be addressed. From the consumer side, pressure of time, availability of individualization or customization of products to individual consumer's requirements, internet connectivity and the burden of responding to excessive messages, also sets the need to change the traditional way of doing business in clusters.

Another bundle of rapidly changing facts is the emerging green and carbon economy, the growing consumption of goods, pressure over commodities prices and

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* First published in *China Daily* (May 23, 2011).

the exploitation of natural resources like water, oil, land and energy and resettling locations of production.

All these factors would place immense pressure over margins, increase the costs of time allocation and as a consequence, generate a need to increase cluster's efficiency, calling for restructuring of the cluster, its governance and management.

In terms of strategic planning and management, to successfully survive in this fast-changing environment, a cluster must, more than ever, be demand-driven (basic act for survival), offer solutions demanded by the changing consumers, be focused on the major objective to target and promote useful cooperation among partners. Finally, one of the most important objective: must be transparent in measuring its success and sharing results of this cluster's cooperation and collective actions to the participants and stakeholders.

The philosophy of a cluster must be "result-driven." A simple governance mode, with low cost and high effectiveness is crucial. At the same time, cluster's managers and thinkers should dedicate a time to plan, think, anticipate changes and impacts, and develop the capacity to rapidly adapt the cluster to these changes, which may not be easy.

A good communication process should be maintained to sustain the interest and motivation of participants to cooperate. Clusters should also focus to partner with the government to promote inclusion of its business interests and possess a discipline to make it happen. Normally, clusters have more difficulties than isolated companies to implement what is proposed in a strategic planning. To implement strategies is crucial for cluster's survival.

In a world witnessing the changing role of governments, clusters should act more as public policies designers, helping local governments to modernize and also transform institutions. Clusters, as a "meso" organization, can be responsible to help governments increase their speed of modernization, on the heels of the private sector. Good ideas also involve cooperation among different clusters, sharing good practices and problem solving skills since the challenges sometimes are the same, and some clusters solve their problems by developing knowledge that is useful to other clusters. A continuous process of sharing and learning is part of the life of a cluster.

Clusters are well known and recognized as a tool for economic development and territory management. Presently, these network structures are facing several changes that are challenging their structure. This chapter has highlighted some of these changes and the actions that clusters should take to face them in order to stay competitive.

Discussion question

Why clusters are important and is it possible to build a cluster in your company´s domain?

Chapter 41

How to Organize the Supply Chain of a Company?*

One of the possible ways for a company to increase margins and capture value is to make its supply chain (inputs needed for production) more efficient. The objective here is to offer a sequence of six steps to evaluate the company´s integrated supply chain (CISC) and to propose an action plan for improvements.

These six steps start with an understanding of the supply chain and the functioning of the markets of its major inputs, and then move to a strategic analysis of the governance of these relationships within the focal company and finally, propose new mechanisms for organizing these relationships in order to build safer, cheaper and more reliable supply chains.

Step 1 is to *understand the company´s integrated supply chain structure*. This involves studying the major inputs (products or services) purchased or internally produced by the focal company being analyzed, costs (procurement costs, handling, transaction costs, production, stocks) and the manner in which these transactions are carried out (governance forms, like contracts, markets and other forms).

After doing this internal analysis, we move to Step 2, which is *to analyze the market characteristics of the major inputs*. In this phase, several studies are conducted to understand the number of suppliers, their products, brands, marketing channels, prices, market share and concentration; their selling behavior, technology and services offered; macro-environmental changes and risks; performance and other important characteristics of the functioning of the market, to enable the company to evaluate if the markets can safely supply the inputs needed.

After performing an analysis of the current situation of the company in Step 1 and how markets work in Step 2, Step 3 is a *diagnosis of each input of company´s integrated supply chain*. Here, we contrast how the company goes about its acquisitions and what

* First published in *China Daily* (August 4, 2011).

are the market characteristics, to assess if the company is performing well, or if other governance structure in the buying process could be better. We also study the prices and resources given to a supplier versus the benefits from the inputs received. In addition, we analyze if the focal company should rely on a single supplier or multiple suppliers in trying to lower risks, stimulate innovation, reduce dependency, acquiring flexibility and promoting suppliers competition.

We must remember that having multiple suppliers may increase the purchasing transaction costs of a company. The major vulnerabilities, risks and the degree of dependence on specific suppliers that the focal company has should be addressed. The purchasing transactions may be classified according to the degree of sophistication of the relationships. The major result of Step 3 will be a priority list for interventions. Long-term goals of the company, traditions and internal resistance to change (cultural aspects and barriers) should be considered when organizing the supply chain.

After completing these three steps that brought to the strategists a diagnosis of the company, the market and the specific purchasing transactions, Step 4 would be to *propose a governance structure for each input of the integrated supply chain*. Here, we refer to the creation of an intervention moment in the supply chain due diligence process. This proposal, for each input purchased, should consider governance form, economics and margins, value capture possibilities, specialization gains, reversibility possibilities (technology switch), adaptability and building entry barriers for competitors. Also, whether building a supply chain that promotes development and small holders inclusion would give access to official (governmental) credit lines, as seen in some countries.

Next, possible suppliers should be procured and Step 5 would be *building the contract (relationship)*. This involves negotiation; considering macro-environmental changes; description and regulation of products, services, communications, payment and information flows; analysis of specific investments needed and the risks associated with these investments that may lead to opportunistic behavior and promoting incentives and sharing results of competitiveness gains.

Once the contract is settled — this could be formal (written) or informal (oral) — comes Step 6 that is the *management of the relationship*. Mechanisms for monitoring the relationship should be agreed i.e., with regular meetings, boards, external evaluation committees; in search of excellence, reductions in transaction costs should be explored; companies should share benefits of experience curve and of innovation gains. A continuous benchmark process and evaluation of alternatives (imports, for instance) can motivate the various partners and avoid the risk of laxity in improving products, services and support. Also, a shared and open communication platform can help in flexibility and responsiveness among various partners, permanently increasing trust. Finally, promoting networking and cooperation among different noncompetitor suppliers of different products would enable experience sharing toward the achievement of the overall goal of improvement of the supply chain.

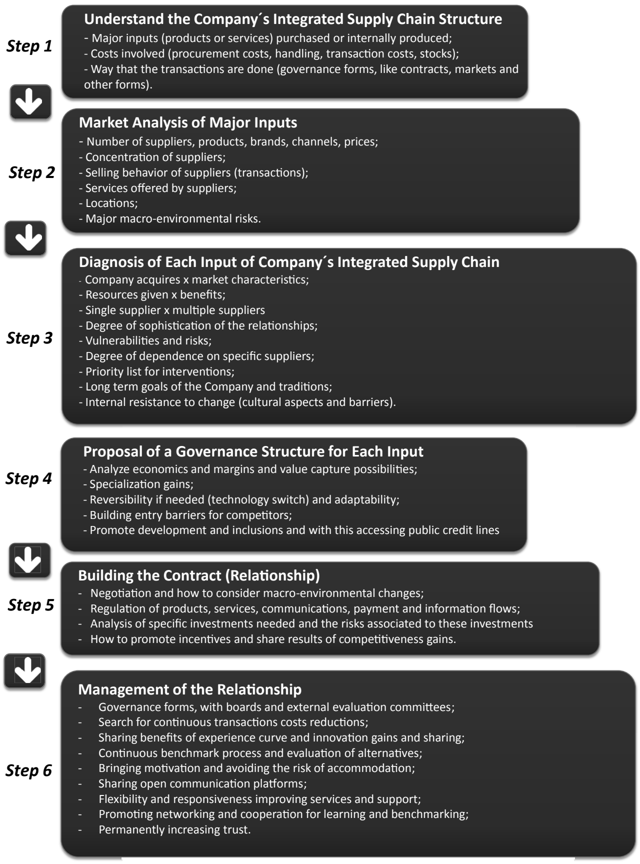

Figure 41.1 A method for supply chain in planning and management.

A six-step sequence can be used to review the company's supply chain and promote changes in planning and managing better ways to acquire inputs, services and other goods and to be competitive.

Discussion question

How would you improve your company´s supply chain based on the methods suggested in this chapter?

Chapter 42

The Macro-environment and Risk Analysis*

This chapter aims to share a framework that has been used in our projects when doing a scenario analysis for a company or an industry. It tries to contribute with a discussion about risks that could endanger either the world's business environment or a particular country affecting a market that is of importance to a focal company.

We perform this analysis by using the traditional and consolidated PEST framework, dividing the variables into the global political–legal system, global economic and natural system, global socio-cultural system and finally, the global technology system. The major variables that we forecast are described in the following list. It is not a definitive list, but may contribute with some analytical points.

Starting with risks associated with the global political–legal system, we tend to consider:

- Risks to democracy in some countries
- Populist measures of some governments and their impact in social expenditures
- Risks of government takeover by political parties causing federal overemployment
- Risks of terrorist and political attacks using food or other sources
- Risks of global arming (even atomic) procedures and weapons availability
- Risks of riots and other challenging political systems
- Risks of increase in corruption within political systems
- Risks of labor laws decreasing work productivity and increasing costs and strikes
- Risks of the growth of illegal crime systems and parallel states (drug cartels, nonillicit trade groups and others)
- Risks of declining support to world's organizations and institutions (World Bank, ONU, FAO,.)

* First published in *China Daily* (March 20, 2013).

- Risks of immigration and also migration to urban areas threatening infrastructure
- Others

Within the economic and natural system, we tend to consider as a starting list:

- Fiscal debt crisis in some countries
- Inflation threats in some economies
- Risks of a insufficient economic growth mostly in poor and emerging economies thus pressurizing governments
- Risks of supply chain inefficiencies (poor land use and other resources)
- Risks of infrastructure collapse
- Risks of financial systems inefficiencies, failures and lack of financing capital
- Spread of diseases in humans, animal or plants, that are difficult to cure
- Risks of over usage of nonrenewable resources (oil, some fertilizers)
- Water shortages and excess causing droughts and flooding (disasters)
- Risks of temperature changes in some regions, with extreme situations
- Risks of increasing carbon emissions and its effects over pollution
- Risks of potable water availability
- Risks to the planet based on asteroids collision and other threats
- Food safety risks due to poor management of food supply chains
- Natural risks of earthquakes, tsunamis, hurricanes and other extreme events

Within the socio-cultural system, we tend to consider as points of attention:

- Rapid changes in consumption behavior
- Risks of consumerist movements
- Risks of environmental movements
- Risks of nationalistic movements
- Risks of food security concerns increasing inefficiencies in non adequate producing areas
- Food waste concerns
- Risks of nontolerance in some aggressive religious movements
- Risks of increase in xenophobic movements
- Others based on socio-cultural variables

Finally, within the global technological system, we tend to consider:

- Risks in digital systems operations (web-based companies' operational systems and government systems)
- Risks in data thefts, data frauds and advances over personal intimacy
- Risks in viral communication exposure of individuals, companies and governments
- Risks of not controlling new high tech innovations, such as genetically modified, nanotech and others that may get out of control
- Others based on technology.

Table 42.1

Political-Legal	Economic-Natural
➔ Risks to democracy in some countries; ➔ Populist measures of some Governments and its impact in social expenditures; ➔ Risks of Government takeover by political parties causing federal overemployment; ➔ Risks of terrorists and political attacks using food or other sources; ➔ Risks of global arming (even atomic) procedures and weapons availability; ➔ Risks of riots and other challenging political systems; ➔ Risks of increase in corruption within political systems; ➔ Risks of labor laws decreasing work productivity and increasing costs and strikes; ➔ Risks of the growth of illegal crime systems and parallel states (drug cartels, non licit trade groups and others); ➔ Risks of declining support to world's organizations and institutions (World Bank, ONU, FAO…); ➔ Risks of immigration and also migration to urban areas threatening infrastructure; ➔ Others.	➔ Fiscal debt crisis in some countries; ➔ Inflation threats in some economies; ➔ Risks of a not sufficient economic growth mostly in poor and emerging economies pressuring Governments; ➔ Risks of supply chain inefficiencies (bad land use and other resources); ➔ Risks of infrastructure collapse; ➔ Risks of financial systems inefficiencies, failures and lack of financing capital; ➔ Hard controlling diseases spreading in human, animal or plants; ➔ Risks of over usage of non-renewable resources (oil, some fertilizers); ➔ Water shortages and excess causing droughts and flooding (disasters); ➔ Risks of temperature changes in some regions, with extreme situations; ➔ Risks of increasing carbon emissions and its effects over pollution; ➔ Risks of potable water availability; ➔ Risks to the planet based on asteroids collision and other threats; ➔ Food safety risks due to poor management of food supply chains; ➔ Natural risks of earthquakes, tsunamis, hurricanes and other extreme events.

Socio-Cultural	Technological
➔ Fast changes in consumption behavior; ➔ Risks of consumerist movements; ➔ Risks of environmental movements; ➔ Risks of nationalistic movements; ➔ Risks of food security concerns increasing inefficiencies in non adequate producing areas; ➔ Food waste concerns; ➔ Risks of non-tolerance in some aggressive religious movements; ➔ Risks of increase in xenophobic movements; ➔ Others based on socio-cultural variables.	➔ Risks in digital systems operation (web based companies operational systems and Government systems); ➔ Risks in data stealing, data frauds and advances over personal intimacy; ➔ Risks in viral communication exposure of individuals, companies and Governments; ➔ Risks of not controlling new high tech innovations, such as genetically modified, nanotech and others that may get out of control; ➔ Others based on technology.

Discussion question

Based on the risks discussed in this chapter, the questions are: What are the possibilities of these macro-environmental variables happening in your company, and if they happen, how would they affect the company. Are there acts (projects) to adapt to this changing environment?

Part 3

How to Create, Capture and Share Value?

Chapter 43

Innovation in Integrated Food Chains*

A food chain is a complex organization and connects all partners in the supply chain right from input suppliers at the start, to the final consumer at the end. In the middle, we have farmers, industry, wholesalers, retailers, food services and service providers (storage companies, transport companies, banks, institutions and organizations). If you envision the orange juice chain, it goes from input suppliers to orange farmers, until it reaches the end consumer. A lot of people and a lot of organizations are at work to deliver the final product to the consumer.

The objective of this chapter is to show how innovation keeps a food chain competitive. Nowadays, competition is beyond a company, since it is a chain that competes against another chain. In this chapter, I will start with input suppliers and farmers. Food companies have a huge responsibility, since there is pressure on limited resources all over the world.

Inputs play a key role in a food chain. When properly produced and used, they help farmers achieve good yields, produce high-quality products and earn larger revenues, and help consumers enjoy safer, tastier and cheaper food on their tables. On the other hand, inappropriate production and mismanagement may lead to resource overexploitation, negative margins for farmers and more expensive or unhealthy food for families. Therefore, input management is one of the biggest challenges when it comes to food security.

In order to overcome such problems, researchers from private companies, universities and governments have been seeking innovations in input production and application. Among the major challenges, I list 13 innovations that would benefit the food chains.

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*First published in *China Daily* (May 19, 2010).

- New renewable production inputs that replace nonrenewable ones, such as today's fertilizers. Fertilizers will become a threat for humanity, and we should come up with a safer alternative.
- Innovations that would allow reuse of resources and the use of by-products to reduce pollution.
- Innovations that would reduce costs for farmers, saving on some operations and improving their margins.
- New technologies that would lead to fewer residual effects of the chemical products used in agriculture.
- Better, more efficient and economical machinery that would save fuel.
- Genetically modified varieties in order to increase yields.
- Genetically modified plants, more adapted to droughts and water restrictions.
- Better grain to protein (animal) and sun to energy (plant) conversion.
- Biotechnology and natural control in order to use fewer chemical products.
- Innovations that would reduce losses in input transport and application.
- More efficient feeding technologies for animals.
- Innovations toward the use of more resistant plants.
- Innovations in breeding that would lead to precocity, which would reduce the cycles and thereby enhance production.

There is a large list of input innovations demanded by farmers inorder to be more competitive. These are the starting points.

In the last couple of decades, world agricultural production has experienced extraordinary improvements, especially with yields, cost management and, most recently, quality as well. Many of these improvements are a direct result of the ability of farmers to face greater external competition since deregulation, using modern technology and production systems. Nevertheless, there is still a lot to be done in this field, even regarding yields.

The major areas of improvement in which innovation plays an important role are sustainability, with the development of technologies that allows, for example, lower water consumption; new crop varieties that conserve more energy and are more resistant or more precocious would reduce the growth cycles and enhance production; animal welfare; certifications and reuse of by-products.

A few more innovations that would majorly benefit the farmers are listed herewith:

- Innovations in crops and land use decisions that would ensure sustainability and resource conservation, at the same time, enable maximum possible use of the land. Some areas allow three different crops per year.
- Use of equipment that would allow better usage of land, which in turn would help increase yields.

- Innovations in water usage technologies that would reduce consumption per area of water.
- Improved animal welfare techniques.
- Innovations in governance structures, allowing sharing of equipment with neighbors, selling services, better use of all assets, that would overall improve efficiency.

Competition is driven by several factors, one of the most important being innovation. Creating new solutions is the path to profitability and has sustainable advantages for companies. Food production, which is under tremendous pressure, is an area where financial resources should be applied toward more research in innovations. In the next chapter, I will discuss innovations required for the food industry and food distribution.

Table 43.1

MAJOR INPUT SUPPLIERS 2020 INNOVATION CHALLENGES

1. Renewable production inputs that replace non-renewable ones, as today's fertilizers.
2. Reuse of resources and the use of by-products, in order to reduce pollution and costs;
3. Innovation that reduces costs for farmers, saving operations and improving margins;
4. Lower residual effects of the chemical products;
5. Better, more efficient and more economic machinery that saves fuel;
6. Genetically modified varieties in order to increase yields;
7. Better grain to protein (animal) and sun to energy (plant) conversion; Search for precocity
8. Biotechnology and natural control in order to use fewer chemical products;
9. Reducing losses on input transport and application;
10. Genetically modified plants, more adapted to droughts and water restrictions;

Source (citation): Neves, Marcos Fava - The Future of Food Business, World Scientific (2013).

Discussion question

Which of these innovations represent opportunities for your company? List challenges and innovations that are not covered in this chapter.

Chapter 44

Innovation Agenda for Food Industry and Retailers*

In the last chapter, I addressed the fact that a food chain is a complex organization, and showed how innovation is important in keeping a food chain competitive, discussing the agenda for farmers and input supply companies at the beginning of a chain. Now I will move forward in the chain, discussing an innovation agenda for the food industry and retailers, to attend to our demanding consumers. Since the food industry is in close contact with consumers' needs and desires, this is where most innovations are taking place. In recent times, consumers' needs and desires have been changing at an ever faster pace.

Consumers expect the food industry to offer healthy food and products that enhance beauty, longevity and promote consumers' welfare. Nowadays, consumers expect a bit more than just the products (convenience, culture, joy, fun). Examples are concepts of "slow food" and "fun food." The food industry also needs to attend to environmental concerns by promoting product recycling and substitution, fit in with the "food miles" movement, and attend to social concerns by promoting inclusion, wealth distribution and fair trade.

Feeling the pressure for more environment-friendly, healthier and distinctive products, the agrofood industry has invested in an extensive agenda of innovation. I would like to list some agenda points that should be part of the day-to-day thinking of these companies:

The development of recyclable and biodegradable packaging materials to address the environmental concerns of buyers is a major point. Consumers do not want to see nonrecyclable packaging all over the place. Another agenda point is innovations

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* First published in *China Daily* (May 25, 2010).

in conservation of products, for instance, increasing the shelf-life of products especially among perishable varieties such as fruits and vegetables where more than 30% is lost.

Research is ongoing in improving flavor of food products. Innovations are required in facilitating storage of products and in the reduction of transportation costs. Increasing attention is being given to the consequences of transporting large volumes of food over great distances. Such transportation involves huge costs, damages to the environment on account of emissions and wastages owing to food items perishing during long overhauls.

Therefore, an innovation that could help the food industry to use less water would be appreciated. One way of doing this is by promoting the use of by-products.

New organizational forms are being created by food companies together with medicine companies and cosmetic companies to innovate on nutraceutics and nutricosmetics, which is a merger of two industry segments. There is also a growing attitude toward business-to-business relationships and innovations in contractual arrangements that benefit the chain as a whole and consequently the consumers.

A lot of research is also dedicated to new technologies of industrial optimization. Firms are developing new marketing channel opportunities, such as door-to-door distribution, outlets and other forms that will be addressed in a later chapter.

This is not an exhaustive list, but for food industry strategists reading this chapter, they are worthy of implementation.

Now we come to the final agent of the food chain: the retailer. The retailer is probably the most important participant in the food chain, since he has one of the most valuable assets of a food chain: information, due to permanent contact with the final consumer. Supermarkets, nowadays, must promote new buying experiences, such as launching tasting areas near their product stalls. They should also search for newer ways to offer their products, increasing the benefits for consumers.

There is a trend among supermarkets to offer complete solutions to consumers. Among other challenges, the supermarket is becoming a communication tool, a place of knowledge transfer, where consumers learn about the products they buy, and is becoming a place where the food industry communicates with its end consumers. Supermarkets are trying to regain some market share of food services by capitalizing on home meal replacement opportunities such as selling ready to eat food, or having a restaurant.

Supermarkets are also increasing services, with innovation in terms of delivery, express food, coffee shops, etc.

These agenda points may be considered as a starting list for food industry and retailer strategists.

Table 44.1

Innovation Challenges in Production Systems.

INPUTS	Renewable sources; Reuse; Cost; Residual effect; Machinery efficiency;	Genetics; Conversion (consumption x production); Results to the buyer; Better controls (biological).
PRODUCTION	Yield per area; Sustainability; Conservation; Precocity; Variety; Water consumption;	Conversion (solar energy); Resistance; Animal welfare; Certifications; Reuse.
AGROINDUSTRY	Ecological packing; Conservation; Flavor; Storage easiness; Lower transportation costs; Lower water consumption; Safety; Loss reduction;	Use of byproducts; Nutraceutics; Nutricosmetics; Relationships; Contracts; Channels optimization (gate-to-gate and others).
RETAIL	Offer presentation; Complete solutions; Home meal/Replacement; Relationship; Purchasing centrals;	Express; Delivery; Tasting/trying; Online sales.
CONSUMPTION	A. Health Beauty; Longevity; Food on the go. B. Welfare Convenience; Culture; Enjoy; Fun Food; Slow Food.	C. Ecology Substitution; Recycling. D. Inclusion People; Wealth distribution; Fair Trade; Food and Miles.

Source: Author

Discussion question

List the ten most relevant innovations in a chain approach and how these may represent opportunities to your company.

Chapter 45

Marketing and Distribution Channels Analysis and Trends*

In this chapter, I will discuss marketing channels and raise 20 discussion questions that will prod managers in the food industry to audit and plan their marketing channels.

Marketing channels link companies with clients. They involve a group of agents that perform services to make products available. When a company produces a product, its agents enable the flow of products, services, communications, finances, information, among others.

Like an orchestra, a company should coordinate its marketing channels in order to build sustainable competitive advantage. It is one of the most difficult variables to change in the marketing mix of a company.

With advancements in web sales and new forms of purchase and distribution, we face a new era where marketing channels are stronger.

A framework is offered for discussions to enable an organization to plan and act driven by demand in the distribution of its products and services. The 20 auditing and planning questions are:

1. How is the marketing channel structured today? Who are the participants?
2. What is the percentage of sales from each of these marketing channels?
3. What are the margins in each of these channels?
4. What are services offered by the channels? List the services channel wise. Which participants in each channel offer these services?
5. What are the margins of the agents in each of the channels?
6. Which available channels have not been utilized until this moment by your company and for what reasons?

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* First published in *China Daily* (January 15, 2013).

7. How are the macro-environmental variables i.e. political/legal; economic; socio-cultural and technological changes affecting the different channels presently? How will these variables affect different channels in the future?
8. What are the trends (concentration/internalization) and features of each channel at this moment? What will be the trends and features in the future?
9. How are marketing channels financing consumption? What are the risks involved?
10. What are the opportunities and possible benchmarks in using web/digital sales platforms?
11. How are the marketing channels of competitors structured?
12. What is the mechanism for flow of products in the channel? What is the role of each participant?
13. What is the mechanism for flow of information from the consumer to the company in each of the channels?
14. What is the mechanism for the financial flow from channels to company and how would you improve it?
15. Are there creative ideas in a network concept that could re-shape distribution? If yes, list them.
16. What types of loyalty programs exist in the marketing channels? Are there any programs that could be benchmarked?
17. What types of strategies should be evolved to deal with competitors in marketing channels?
18. What types of strategies should be evolved with noncompetitors that operate in the same marketing channels?
19. How will marketing channels of this industry look like in 20 years?
20. How to organize all these ideas in a project framework to make the company more competitive?

Answers to these 20 questions can help food companies build the most appropriate plans for their marketing channels. Some of these questions are exploratory while others would prod companies to improve the performance of their marketing channels.

Outstanding performance in marketing channels is a source of competitive advantage. I hope that these 20 questions would help your organization to improve your marketing channels.

Discussion question

Answer these questions for your company and build a plan to rejuvenate its marketing channel.

Chapter 46

Improving Food Marketing Channel's Performance*

The objective of the tool presented in this chapter is to describe all the agents that have functions in the channel (are part of the chain) for the company under analysis. This would allow us to obtain an accurate view, including about the agents and functions they perform. At this moment, we are aware of the channel's functions, as well as the critical analysis of the capacity of developing extra functions or relocations, as will be shown later on.

After the analysis at the industry level (where all possible channels are described) the company's channels should be described individually. A company's channels can be different from the ones used in general by the sector, for some possible channels in the sector may not be used by the company (e.g., sales of products in convenience stores). Sales and financial data must be provided with the objective of understanding, because they are the most important channels for sales and company profit.

A table can be generated, similar to Table 46.1, for each category of flow in the distribution channel: products and services, communication, information and payables/financial. The first two flows originate from the company and end at the final consumers and the last two flows originate in the opposite direction. The first column in the table lists functions under each flow. The second column of the table describes who carries out the function and the third column prompts the user to define possible improvements in the role of the person performing the function. If the company has several distributors (wholesalers, retailers), a column for each of them can be added, or possibly a table made for each company.

This table can be filled out for each member of the channel, or also for the aggregated members (retail industry).

*First published in *China Daily* (February 24, 2013).

Table 46.1

Flow table (of the distribution channels)

Function	Responsibility Analysis (who does it and how)	Possible improvements (proposals)
Products and services functions		
Inventory management and its levels		
Product delivery		
Product modification		
Product lines and variety		
New product evaluation		
Sales volume (performance) forecast		
User help/installation technical service		
After sales service		
Sales service supply (team)		
Training: range and costs		
Product maintenance		
Package/specifications issues		
Exclusivity		
Territorial rights		
Market coverage expected		
Exports aspects expected		
Time frame (period to carry out the flows)		
Adaptation for specific legislations		
Others…		
Communication Functions		
Advertisement (all forms)		
Sales promotion (all)		
Public relations actions (all)		
Direct marketing actions		
Information about the products		
Participation in the communication budget		
New media forms of communication		
Package information		
Others…		
Information Functions		
Share info. about the consumer market		
Share info. about the competition		
Share info. about the changes in the environment		
Participation in the planning process		
Frequency and quality of the information		
Share information about complaints		

(*Continued*)

Table 46.1 (*Continued*)

Flow table (of the distribution channels)

Function	Responsibility Analysis (who does it and how)	Possible improvements (proposals)
Variables of Information		
Electronic orders		
Others (fill in)		
Variables of Payments and Offers		
Frequency of product orders		
Policies for prices and payments		
Margin analysis		
Commissions (volume and frequency)		
Grant credit to the final consumer		
Billing consumers		
Search for sources of finance		
Price guarantees		
Others (fill in)		

Some final comments should be added regarding these marketing flows performed by the channels, in order to complete the table. There are three basic premises in relation to these functions:

- the participants can be eliminated or substituted in the channels;
- the functions they perform cannot be eliminated;
- when participants are eliminated, their functions are passed on or backward in the system and taken over by others.

These functions can and should, for the channel's efficiency, be performed by the participants that manage to operate in the most competitive way possible. All are indispensable, and experience, specialization, contacts and scale are fundamental for this exercise. The efficient coordination of the process always involves sharing of information.

Discussion question

How would you improve the performance of the marketing channels of your company using the table?

Chapter 47

What Are Advantages and Risks of Building Joint Ventures in Food Business?

Joint venture is a type of strategic alliance where a third company is created, with the original two companies continuing their existence. It is one of the contractual forms, an intermediate between the extremes of vertical integration and the market. Table 47.1 provides advantages and risks for companies that are interested in exploring joint ventures.

This table could be used as a tool by companies entering into a joint-venture analysis. If the risks outweigh the possible advantages, the joint-venture is not recommended.

Table 47.1

Advantages and Risks in Strategic Alliances (Joint Ventures)

Advantages of Strategic Alliances / Joint Ventures	Risks of Strategic Alliances / Joint Ventures
➔ Can increase access to critical resources;	➔ Conflicts between companies;
➔ Avoid legal and economical entry barriers;	➔ Delicate construction of the administrative team;
➔ Gain more market force and coverage (scale);	➔ Creating its own identity is critical;
➔ Spread risks;	➔ Possible instabilities in the command structure;
➔ Acquire experience and contact network;	➔ Technology transfer without any compensation;
➔ Avoid supplier and/or distributor power;	➔ Increase exit barriers;
➔ Access to distribution channels;	➔ Unbalanced power;
➔ Decrease in stocks, better logistic coordination	➔ Hold-up risk (contract break) when only one of the parts makes investments in specific assets;
➔ Idle capacity utilization;	➔ Partners can disagree about the division of the investments, marketing or other policies;
➔ Adaptation capacity in local markets;	➔ Cultural difference;
➔ Lower cultural risks to enter new markets;	➔ A dynamic partner in a joint venture can become a strong competitor;
➔ Increase R&D;	➔ Risk of choosing the wrong partner.
➔ Unite efforts to reach common objectives;	

Discussion question

Which are the most relevant advantages and risks of joint-ventures in your vision?

Take a recent example of an announced joint venture in the media and discuss possible advantages and risks.

Chapter 48

What Are Advantages and Disadvantages of Building Franchises in Food Business?

A company can also use the franchise format for growth. Franchising, a contractual form and an intermediate between vertical integration and coordination via market, is a contract through which a franchiser transfers to a franchisee the right of producing or selling products or services.

In exchange, the franchiser receives the revenue flow of each unit, which can become a fixed fee (franchise fee) and/or variable (such as royalties and advertisement). In addition to this, the franchisee can contribute with assets, such as capital, management ability or know-ledge about local markets.

This way, there is a network that shares a brand, a way of doing business and knowledge that is gained in that activity. Table 48.1 provides the advantages and risks for both franchiser and franchisee.

Table 48.1

Advantages and Risks in Franchises

Advantages in franchises	Risks in franchises
For the franchiser (the owner of the concept):	*For the franchiser (the owner of the concept):*
➔ Long-term strategic relationship; ➔ Business expansion without demanding high levels of investment. ➔ Brand management and control; ➔ More flexibility than vertical integration; ➔ Scale for marketing and technology (advertisement, new product development, administrative procedures); ➔ Capture local knowledge of the franchisee; ➔ Entrepreneurial spirit of the franchisee; ➔ Incentives of the franchisee (it is his business)	➔ Network integration process and participation of the franchisees in strategies and new developments; ➔ "Franchise brokers" and "franchisee cooperatives" (where franchisees meet to increase their bargain power with the franchiser) can threaten the system; ➔ Concentration in the hands of few franchisees can make the negotiation process unequal between the parts; ➔ Labor aspects on the franchisee's behalf that could result in law suits for the franchiser; ➔ Brand value loss due to the offering of products below the specified standards by free-riding franchisees; ➔ Ex-franchisees copying the business.
For the franchisee (local partner):	*For the franchisee (local partner):*
➔ Receive marketing support; ➔ Location for the venture; ➔ Efficiency in supplies; ➔ Market research; ➔ Project and layout; ➔ Financial counseling; ➔ Operational manuals; ➔ Administrative training; ➔ Employee training; ➔ Knowledge already acquired from the franchiser's experience; ➔ Access to consolidated brands in the market.	➔ Unknown expenses in the system; ➔ Geographical concentration of franchisees in the same area generating competition within the franchise system; ➔ Lack of investments from the franchiser in marketing and innovation; ➔ Can limit creativity and innovation of entrepreneurs or franchisees; ➔ The payment system can be discouraging with the initial fixed fee plus part of the economic result (royalties) and contributions for communication; ➔ Mandatory purchase of inputs from the franchiser that can be overpriced.

Discussion question

How do you see the franchise format as a growth alternative?

Chapter 49

Developing Own Stores: What Are Advantages and Disadvantages?

Another growth strategy for food companies is to build own stores. The vertical integration can be summarized as having the distribution function (it will be part of the company) and assuming functions of the distribution channel. There are several factors to be considered. The possible risks presented for this option are summarized in Table 49.1.

Table 49.1

Factors to Consider and Risks in the Vertical Integration Strategies

Factors to Consider in Vertical Integration	Risks in Vertical Integration
➔Complete control of the channels or supply;	➔The cost to change becomes too high;
➔Access to market information;	➔Costs and expenses associated with the integration can be higher than other alternatives;
➔ Protection against market oscillations;	➔Possible lack of flexibility;
➔"Agency" costs as a result of different interests in the organization;	➔Larger exit barriers;
➔Integrated tax planning in the chain;	➔May reduce and limit the innovation rate;
➔Differentiation opportunity;	➔Large investments required;
➔Increased negotiation power with other distributors or suppliers;	➔Clients may become competitors;
➔Creation of scale and entry barriers to new competitors;	➔Differences in optimum production scale;
➔Protection against the closing of the market, for the company has its own access to it.	➔Possible lack of administrative synergy;
	➔Problems in one production stage threaten production and profitability of all other stages;
	➔Occasional closing of the access to research of other distribution alternatives;
	➔The activities at the beginning of the chain may be very different.

The table can be used as a guideline by companies desiring to set up their own stores or distribution systems. If the risks appear much higher than the possible advantages, the vertical integration into own stores or distribution systems is not recommended.

Discussion question

Is the vertical integration a relevant alternative for your company?
How do you perceive these advantages and risks?

Chapter 50

Creating Differentiation and Positioning for Food Business

Markets consist of buyers that differ in terms of needs, purchase power, geographical location, attitudes and purchase practices. Segmentation is key to business analysis, strategic positioning, resource allocation and portfolio management. Segmentation enables a company to study trends among various groups of consumers. Such predictions could be used by the company to formulate and implement competitive actions.

The market segmentation is an important variable in strategy implementation, due to three reasons. First, strategies for market and product development, market penetration and diversification normally pursue increase in sales through new markets and products. To implement these strategies with success, identification of market segments is necessary. Second, market segmentation allows companies to effectively operate with limited resources given that production, distribution and promotions are not required at a lavish scale. Focusing in target segments allows small companies to compete with larger companies. Finally, segmentation decisions directly affect product, distribution, communication and price variables.

Table 50.1 presents a sketch of the main segmentation variables (bases). In order to evaluate the potential of market segments, strategists should understand consumers' characteristics and needs, analyze their similarities and differences and develop profiles of the consumer groups.

Thus, companies can use one or more segmentation bases to identify current and potential consumers that have similar characteristics. Let us consider a company that works with consumer products. It can use demographic variables to define its target segment, for example, clients that are in the Southeast region (geographical). The company can also use other variables, specifying in more detail its segment, i.e., consumers of the Southeast region, men, with ages between 18 and 25 that consume the product in parties and night clubs (geographic + demographic + behavioral). The use of segmentation techniques is absolutely crucial in a world of fragmented foods markets.

Table 50.1

Main segmentation variables
Segmentation Variables for Consumer Markets ("B 2 C")
Geographical: Region; Size of the municipality; Size of the city or metropolitan area; Concentration; Climate.
Demographics: Age; Gender; Family size; Family life cycle; Income; Occupation; Religion; Race; Nationality.
Psychographics: Social class; Life style; Personality.
Behavioral: Occasions; Benefits; User condition; Use rate; Degree of loyalty; Aptitude stage; Attitude in relation to product.
Demographics: Industrial sector; Company size; Location.
Operational: Technology; User status; Client capacity.
Purchase approaches: Organization of the purchase function in the company; Power structure; Nature of the existing relationships; General purchase policy; Purchase criteria.
Situational factors: Urgency; Order size; Specific application.
Personal characteristics: Similarities between buyers and sellers; Attitude in relation to risk; Loyalty.

Source: Author based on Kotler and Webster & Wind.

Key segmentation strategies include market segmentation, differentiation and offer or product positioning. The adoption of target market strategies demands these stages. The first is market segmentation. The second stage is choosing the target market, selecting one or more market segments to work with. The third stage is market positioning, the act of establishing and communicating the major benefits of the product to the market.

Several authors have agreed that an organization distinguishes itself in a market through the differentiation of its offer (products or services) in relation to its competitors, as shown in Table 50.2. This way, the company can evaluate the main forms of differentiation — products, services, advertisements or human resources and evolve plans to use them best as per the segmentation required.

Based on Table 50.2, Table 50.3 provides some ideas for a company to be different from its competitors.

Table 50.2

Differentiation Options for Companies

Type of Differentiation Strategy	Definition	List your Ideas for your Company
Product/ Quality	Product characteristics that make it better – not fundamentally different, just better. The product performs with more initial reliability, has long-term durability or superior performance.	
Design	Offer something that is truly different, that escapes from the "dominant project," giving unique characteristics. This process includes product design, process, visual symbols, architecture, company identification.	
Image	An image is created for the product. This one also can include differences in a product that do not involve intrinsic improvements in performance.	
Services	It is the base for differentiating something parallel to the product, a support base in services, there is always a base to reach another substantial form of differentiation, especially in terms of support and services.	
Human Resources	Through the hiring and training of people much more qualified than the competition, improving the characteristics of the competencies, courtesy, credibility, reliability, responsibility and communication.	

Source: Adapted from Kotler.

Table 50.3

How can the company be different?

DIFFERENTIATION STRATEGIES

Differentiation variables		How can I improve those variables? Possibilities of improvement
Product	Standardization Style Durability Maintenance Attributes Economy Performance Cost Reliability Ease Packaging	What do we do now about those questions? Is it possible to improve something? How much would it cost? Is the value going to be increased?
Services	Delivery Ease to buy - support Installation Assistance/ care Training Offer and Maintenance Quality Return Credit Digital	
Human Resources	Courtesy Competence Credibility Character Commitment Communication Charisma Pro-active Flexibility Appearance	
Image	Brand Identity Tradition Denominated Region Concept Process Culture Craft Inclusion	

Source: Author, based on Kotler.

Discussion question

Which differentiation options could be applied in your company to improve its positioning?

Chapter 51

"Go to Market" Strategies in Emerging Countries*

This chapter proposes some specific strategies to enter and conquer the emerging markets. These markets are booming nowadays and if any company wants to grow in the global arena, it should participate and capture the growth of emerging countries. In the developed countries, companies could consider merging, acquiring or conquering market share of competitors, since in these regions most of the markets are not growing. Some characteristics of these markets are listed here to help companies with decision-making.

1 Emerging markets cannot be generalized. A deep understanding of each market is necessary. Countries differ. Just as an example, China, Brazil and India are real "continents" and differ depending on each specific region, urban or rural areas, and cultural background. Imagine generalizing Africa, what a huge mistake it would be.
2 As opposite to developed markets, securing information in emerging economies is difficult due to a lack of reliable data, official statistics and other sources. So, companies desirous of entering emerging economies may need to build own sources to find relevant information and knowledge. This is a unique characteristic.
3 Bartering systems (exchange of goods) may be a strategy to finance and avoid risks of default in payments or not receiving at all, due to the lower levels of income, higher inflationary trends and different business models in several emerging economies.

*First published in *China Daily* (November 2, 2012).

4 Marketing channels in emerging economies are very unique, involving several distributors that are very different in the way they do business and perform services. Sometimes it is a chaotic system, difficult to understand and measure. At the same time, the presence of modern retail systems makes a very diverse and dual system. Several variations within each country are also found. A segmentation process should be carried out using this variable and a clear multi-channel approach (in product and services) should be established by the company.

5 Adapting to family businesses and family managed distribution systems is needed. They tend to respond differently to the company offer, asking for more services and financial benefits than for discounts, the basic demand of large multinational retailers.

6 A motivated sales force that uses modern technology for data generation and analysis should be used to build information about the market and target the very different market segments.

7 Companies should try to select after due diligence and build trust with distributors in order to establish entry barriers for latecomers in these markets.

8 The issue of human resources is critical. Emerging countries are experiencing a fast rate of economic growth, and job opportunities are booming within competitors and elsewhere. So a strategy to attract and retain talent is fundamental. Sharing participation in the company may be a good retaining strategy.

9 Competition should be treated in a different way, since new competitors may come into these markets faster than in consolidated markets. Local competitors are more adapted to local situation and offer huge competition, since they know the rules of the game, the so-called "how to play."

10 Acquisition of local companies may be a strategy to acquire resources such as people and market knowledge, but investing company should always consider cultural aspects when taking over management of local company. A lot of mistakes and bad cases can be reported here.

11 It is recommended that companies desirous of entering emerging markets contract the services of local experts to understand the regulatory systems, since these are complicated and are best understood by the locals. Also, the institutional environment in some countries is weak, rendering justice slow and expensive. Sometimes, institutional or governmental restrictions of the new markets would mandatorily require entering only via joint ventures and/or with local partners.

12 Adapting product lines to local logistic systems is needed. In several markets, refrigerated transportation systems and structures are not available.

13 Find the right media to communicate with possible consumers, since effective ways to advertise may vary. Local sources of media may be available that may be more effective.

14 Focusing in the growing segment of food services in emerging cities may be a nice strategy to enter, popularize these products among consumers, and then approach retail by which time demand would have been already created by this strategy.
15 Avoid starting a strategy to capture all the existing markets, since the complexities are huge and the investing company may lose focus. Focusing in target segments is a key resource for avoiding major pitfalls.
16 Manuals describing various procedures are necessary owing to mismatch in the education levels and also to enable companies to train their new human resources in a faster way than competitors. These rulebooks could be used to accomplish training faster which in turn would ensure employee retention.
17 Investing in emerging economies may require investments that are not part of original plans, such as infrastructure, local communities benefits, corporate social responsibility programs and others.

The challenge is set. To grow today in the global arena will be very difficult without playing the game with emerging economies. And the difficulties are immense, so are the opportunities. It is the decade of the emerging economies.

Discussion question

In your view, which among these 17 points emerge as the five most important?

Chapter 52

Creative Food Pricing Strategies*

One of the most difficult decisions nowadays for companies is establishing an acceptable pricing mechanism for their offers i.e. products and services. An adequate, sustainable and creative pricing strategy is based on the equilibrium of financial returns desired by companies and well being of consumers in the tough global competitive arena.

I work with a framework method that has three major phases for this creative pricing strategy (CPS) process. The first phase is the understanding of the initial value of the product or service given, by the consumer. The second is about increasing this value, and finally, the third is the strategic pricing movements. Let us move to the first.

Phase 1 — Understanding the initial value given by the consumer.

1. Before any pricing decision is taken, a company must analyze the external environment: economic, income and demand conditions.
2. After this, a company should try to understand the behavior of the target consumer, his perception of the reasonable price (using surveys, experts, "food labs") and carry out a survey of initial pricing experiences in different marketing channels. The company should also analyze the total consumer costs when buying the product (money needed, time expended, knowledge acquisition, training costs, and psychological costs) that may be working as "buying barriers." All the consumer's risks in buying the company's product or service should be explored.
3. The third analysis in this phase is related to competitors, competing products/solutions and their prices, and how the consumer values and compares the product

*First published in *China Daily* (August 27, 2010).

attributes of competitors. In concluding this phase, a company could establish objectives and gain an understanding of its cost structure at different sales levels.

The analysis of consumers, competitors and economic environment will facilitate a company to understand the value of its product or ser vice as perceived by the consumer. In the second phase, a company could attempt to change the initial perception of the consumer toward its products or services.

Phase 2 — Strategies for increasing the value

4. Companies should research and try to create a unique value position for their products. This can be achieved by reducing the importance of substitutes and comparison possibilities (from the minds of the consumers), thus blinding the consumers to competitors.
5. Another opportunity is to compare the cost of the product as a proportion of the consumer's income or total expenditure, measuring and communicating.
6. Companies may use "lock in strategies," to market their products as being complementary to products already acquired by consumers.
7. Companies should communicate the importance of their products' attributes and the risks that may arise upon consumers if such attributes, for instance quality and safety, are neglected by competitors.
8. Companies may also consider offering a "solution-driven" package of products and services to conquer the buyers (sometimes called as "bundling").
9. Mitigating consumer's buying risks, as discussed in Phase 1, is also an idea worth pursuing.
10. Some markets offer possibilities of skimming price strategies for new solutions (image, status, and exclusivity). This benefits the companies to capture value from innovative consumers, first movers and status-oriented market segments.

11 Companies could also offer economic benefits to consumers (like lower production costs) in buying their products along with simple messages and credible commitments.

Phase 3 — Strategic pricing movements

This phase requires companies to:

12. Monitor and preview competitor's pricing movements.
13. Establish discount policies and promotions analyzing seasonality and other factors.

14 Invest in an integrated product line approach and pricing Interactions.

15. Implement pricing adaptations when the market faces any macro-environmental (economy) changes;
16. And finally, using web-based strategies, provide services and pricing options.

Table 52.1

Creative Pricing Strategies			
			Lists your Ideas for your Company
A - Understanding	1	External environment analysis	
	2	What are the risks in buying the company's product or service	
	3	Competitors offers	
B - Increasing Value of Company's Offer	4	Reduce the importance of substitutes of the product	
	5	Compare the cost of the product	
	6	Possible "lock in strategies"	
	7	Communicate the importance of attributes	
	8	Problem-solution driven	
	9	Mitigate consumer´s buying risks	
	10	Skimming...capture value with first movers	
	11	List of benefits to consumers	
C - Strategic Movements	12	Monitoring and previewing competition´s pricing movements	
	13	Establish discount policies and promotions	
	14	Pursue an integrated product line approach	
	15	Plan price adaptations needed	
	16	Use web-based strategies, solutions and experiences in pricing	

Source: Author.

I have used this framework with some companies, transforming each of these 16 points into questions and answering them with executives. These questions are valid for existing and new products and services and also in consumer research and other information searching activity. I hope these concepts and questions would prod companies that are facing challenges in their pricing strategies.

Discussion question

Use the framework to develop a strategy for improving the pricing of your products.

Chapter 53

Value Creation, Capture and Sharing Trilogy: The Costs*

This chapter will deal with costs. We will discuss differentiation and collective actions' aspects of value creation, capture and sharing in Chapters 54 and 55.

In this chapter, we discuss: How would cost reduction help companies to capture more margins? Basically, there are two major components of costs where we can find possibilities to improve: (1) internal costs and costs of inputs, and (2) services bought by companies (supply chain costs).

We will start with activities related with internal costs. Here, companies should look at all the production-related activities and explore improvements.

(a) Companies should explore strengthening their core competencies, or what they know how to do;
(b) They should evolve mechanisms to effectively utilize their resources and assets. It is a simple question. We have this asset, how to use it more effectively? Strategies relating to outsourcing may be an interesting activity. Outsourcing noncore activities would reduce costs;
(c) Companies should evolve scale strategies. What production levels would result in scale economy?
(d) An analysis of the quality and cost of materials is another possibility of value creation, capture and sharing, studying new materials and components which may offer better solutions.
(e) To have efficient labor is also important. Companies should evolve mechanisms to train their human resources, use them effectively and provide welfare. Simplicity is the word here.

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* First published in *China Daily* (October 19, 2010).

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(f) Using methods to continuously redesign operations toward a "cellular" control of costs is another activity. Every activity, like a cell, must be seen and analyzed in terms of how could it be better done?
(g) Research and development toward specific technologies that could improve the company's efficiency is another strategy;
(h) Identifying the optimal financial architecture, i.e., seeking cost of capital and some public funding sources (governmental support) at competitive rates.

The above mentioned internal factors would strengthen companies' resolve toward cost control, value creation, capture and sharing.

The second bundle of activities involved in the cost approach of our value creation, capture and sharing model (cost, differentiation and collective actions) is focused at the supply chain of a company (buying processes and relationships with suppliers).

(i) Here, a company should try to reduce the bargaining power of sellers, mostly working on strategies related to promoting competition within a group of reliable suppliers and to have a continuous trial of substitutes/alternative inputs (even imported). This would bring better negotiation power to the company, increasing margins.
(j) Another possibility is to know the best moments in buying, since a seller has some moments over the year when his demand is smaller, and a company with good capital structure can buy better during these times.
(k) Governance contracts/reduction in transaction costs, is also a strategy, since to buy and to negotiate there are some other costs involved (transaction costs) that have impact over time and other resources of the company. Companies are encouraged to invest in technology and information systems to develop and implement effective processes.

In this section, we have listed 11 working points for companies that want to capture more value for their products and services via reducing the costs. These 11 working points may be regarded as opportunities by food companies. To complete our "Value Creation, Capture and Sharing Model," our next chapter will explore differentiation strategies and collective actions' possibilities toward value creation, capture and sharing.

Table 53.1

The Value Creation, Capture and Sharing Model: Costs

Activities	How the company or food chain can do it? Ideas.
Explore core competence to an exhaustion	
Better use of all assets	
Search for scale	
Quality and cost of materials used in production	
Efficiency in labour	
Continuous redesign of operations and methods	
Technology (R&D) to reduce costs	
Financial architecture (better financing sources)	
Advantage of experience effects	
Perform operations better than rivals	
Overhead costs reduction	
Outsourcing (make of buy decisions) to reduce costs	
Reduce bargaining power of sellers	
Governance contracts/reduction of transaction costs	
Increase your importance to suppliers	
Continuous trial of substitutes/ alternative inputs (imported)	
Stimulate competition within a few and reliable suppliers	

Discussion question

Which of these alternatives are available to your company? What measures would your company undertake to achieve them?

Chapter 54

Value Creation, Capture and Sharing Trilogy: Differentiation*

How can differentiation help to capture more value? The differentiation approach has five major possibilities, each with its own tools and ideas. The first is the integrated relationship approach, the second is related to products/solutions, the third is connected to services/people, the fourth possibility involves packaging and the fifth, the company‘s brand/image.

(1) **In an integrated relationship approach**, the first option for companies or food chains should be to search for proximity with clients — establish the so-called "lock in" strategies in which a company "locks in" consumers by increasing the switching costs of moving to a different offer or company. In a relationship, it is also important to offer performance to the buyer (value driven) being a unique solution that tries to simplify buyer´s decisions and costs.

(2) **In products and solutions**, mostly in food markets, innovation is the buzz word. We see products with aggregated nutrition components or attributes, like vitamins, minerals or other supplements. Launching innovative products in existing or new and booming markets (e.g., pet food) is also a strategy to be considered. Increased or reduced portions of products may also be considered, such as reduced products for smaller families or even individual portions. Ready-to-eat products serving a complete meal (rice with beans inside the same package) and targeting new market segments (such as nutraceuticals, functional foods and nutricosmetics) open opportunities for value creation, capture and sharing. Sustainable practices and certifications are value creators in most of the cases.

Another possibility is linked to innovations and products that expand the size of markets. Some companies when targeting younger generations are offering

* First published in *China Daily* (November 2, 2010).

toys or other gifts together with food to increase value and consumption. Innovations in ethnic food and new buying experiences promote growth in the market. Companies could also use occasions such as Christmas, Valentine's Day, Olympic Games or other events to market their products. There is growing appeal of "home made" food that is fresh, locally produced; this and other such linkages could be established with consumers. Legal protection, like patents for innovations, is also a strategy for value creation, capture and sharing.

(3) **In services and people**, companies could search for a faster, more reliable, "just in time" or prompt supply. Another opportunity is looking at the buyer's decision process, offering services that may reduce customer's "fats" in buying, that convince the consumer of the benefits with this acquisition instead of acquiring a similar product from a competitor. In services and assistance, companies may also set a standard for the industry and this may work as an entry barrier for competitors. Companies should invest in technology, at the same time, recruit competent human resources which would give them an edge over competitors (use the "high tech and high touch strategies"). Channel related strategies also have space here, offering locational convenience, presence at the point of sale and new distribution formats for the "on the go eating" segments and other types of buyers.

(4) **In packaging,** several possibilities and techniques could be deployed by companies such as using recyclable packaging, different materials for packaging different products; depending upon the products, packaging could be transparent, they may contain messages about health benefits, shelf-life, sustainability programs (recycling package initiatives), supply chain information (traceability), how to use the products related to life style (fitness, beauty, etc.).

(5) **In branding and image building**, there are well known strategies for increasing and capturing value. For instance, companies could apply the concepts of the integrated marketing communication strategies to manage a company's brand and image. They can be used to establish permanent "loyalty contracts" with buyers, receiving added value based on the recognition given by consumers to the brand and image. Endorsements are also value creators.

Finally, companies could invest in developing strategies that create new concepts, new functionalities, offering better financial results and diagnosis to clients, and "tailor made" offers.

In this chapter, we have listed five working points for companies or food chains that want to capture more value with differentiation. These points may be transformed into opportunity questions by companies. Our next chapter will explore collective actions possibilities in value creation, capture and sharing model.

b1651 The Future of Food Business (2nd Edition) b1651_Ch-54 27 Mar 2014 10:25 AM

Table 54.1

The value creation, capture and sharing model: Differentiation

Activities	How the company or food chain can do it? Ideas
Integrated relationship approach	
Lock in strategies: increase buyer switching cost	
Products/solutions (unique to buyer)	
Customer service: fast, reliable, "just in time"	
People ("high touch")	
Packaging solutions	
Simplifying buyer´s decisions	
Brand and Image	
Performance to buyer (value driven)	

Discussion question

Which of these alternatives are available for your company? How would you achieve them?

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Chapter 55

Value Creation, Capture and Sharing Trilogy: Collective Actions*

This is the concluding chapter in the value creation, capture and sharing model series. Here, we present the third bundle of activities related to collective actions. Joint or collective actions are defined as companies' activities that could be performed together with another company or food chain, or even more than one company. These companies may be competitors or others that do not compete but operate within the same markets, and even totally nonrelated companies. Due to an increase in competition, compressed margins and control costs, the possibilities of working together are huge and need to be explored by companies in the near future.

We will divide collective actions in seven areas of possibilities. (1) Supply chain, (2) internal management, (3) products/brands/packaging/services, (4) communications, (5) marketing channels and sales, (6) pricing, and finally, (7) via horizontal and vertical collective associations.

(1) In joint and collective actions within the supply chain (here considered as all the suppliers of the company), the most common activities comprise buying inputs together with other companies thus increasing their bargaining power with suppliers. Another idea is to create a common purchase structure shared with other companies to provide scale gains and reduce redundancies.

(2) In internal management, companies may consider plans to invest in projects with other like-minded companies in areas of quality, traceability and information systems; share human resources management practices (share training,

* First published in *China Daily* (November 11, 2010).

structures and others); share financing and legal practices (using collective tools), etc. Here, an understanding of how the strengths of a company could be shared by another may be analyzed.

(3) **Joint or collective actions in products/brands/packaging/services** may also contribute to capture value. Some examples are: to complement product portfolio with other company's products, having a more complete offer; create new products and technologies in conjunction (reducing individual investment), facilitating adoption of new technologies and defining a dominant standard; use other company's brands to enter in new markets (brand licensing); share services structures for clients, for example, related to the guarantee, maintenance, recall of products; and finally, use the same packaging infrastructure. We may even consider sharing production or service assets bought together and collective construction of infrastructure (like the example of the ethanol pipeline being built in Brazil).

(4) **Joint or collective actions in marketing channels and sales** could also be carried out to capture value. Examples are: companies with interests in market segments can share channels and increase sales; combine efforts to open international markets; sales staff from different companies may complement their products portfolio with products from another company; in learning about client characteristics (knowledge about client specificities), costs may be shared among companies; increasing the trade of information among sales staff (sales and potential sales in their markets) and joint market studies to increase knowledge of territories, alignment of territories, number of sales staff and determination of quotas.

(5) **In pricing**, several possibilities of joint and collective actions are possible. Examples are: offer a package of products and services with more value and convenience, as in bundling of agricultural inputs. As a consequence, there is a significant chance that the client's price sensitivity is reduced, allowing the company to charge more for the package, in comparison to a separate product. Companies can share discounts (through loyalty cards, for example) and other pricing strategies.

(6) **Capturing value through collective actions via communications** also has some examples: conduct joint advertising among companies from the same industry, or companies that have the same target market; joint investments for increasing the consumption of the industry's generic product to create knowledge and form a favorable public opinion of the product so that all participants benefit; share public relations infrastructure; stalls and stands, common exhibition and demonstration areas and other promotional activities.

(7) **The last topic in value creation, capture and sharing** is via horizontal and vertical collective associations. These include participation in associations, cooperatives, pools of producers, joint ventures, alliances and other collective forms.

Table 55.1

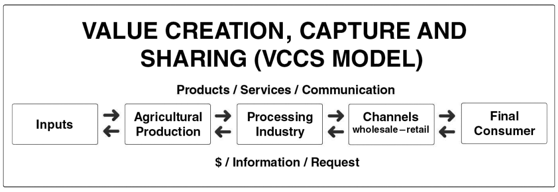
Value Creation, Capture and Sharing: Collective Actions

Activities	How the company or food chain can do it? Ideas
Collective actions via supply chain	
Collective actions via internal management	
Collective actions via products/brands/packaging/-services	
Collective actions via communications	
Collective actions via marketing channels and sales	
Collective actions via pricing	
Collective actions via horizontal and vertical associations	
Collective actions via strategic alliances and joint ventures	

Source: Author.

The benefits of participating in cooperatives and strong associations in the industry helps activities like lobbying, market protection, tax reductions and other activities that try to protect margins.

In this final chapter in the "Value Creation, Capture and Sharing Model" trilogy, we listed seven working points for a company that wants to capture more value with collective actions. These working points may be transformed into opportunity questions by companies in raising ideas that will become projects for value creation, capture and sharing.



DIFFERENTIATION STRATEGIES

Inegrated relationship approach;
Innovation;
Lock-in strategies;
Products and "solutions";
Brand and Image;
Packaging solutions;
Sustainability and certifications;
Intimacy and convenience;
Channels;
Sales force;
Services;
Performance to buyer.

COLLECTIVE ACTIONS STRATEGIES

Supply Chain;
Internal management: products/ brands/packaging and services;
Communication;
Channels;
Sales;
Pricing;
Horizontal and Verticals associations;
Strategic alliances, joint-ventures and other forms.

COSTS STRATEGIES

Explore core competences;
Better use of resources and assets;
Strategy-scale production;
Quality and material costs;
Efficiency in labor;
Continuous redesign of cost reduction;
Financial architecture (better financing sources);
Advantage of experience effects;
Outsourching (make or buy decisions);
Better operational performance;
Overhead costs reduction;
Contracts governance/reduction of transaction costs;
Reduce bargaining of sellers and increase importance to suppliers;
Continuous trial of substitutes;
Stimulate suppliers competition.

Source: Author.

Discussion question

Which of these alternatives are available for your company? How would you achieve them?

Chapter 56

Creating a Winning Food Concept*

Unstable global environment, lower margins, incredible access to new technologies, huge amounts of information from the digital world, higher risks, complexities, and the emergence of new competitors and "copy-etitors" (companies that immediately copy the product) bring a dynamic world of opportunities, challenging our management.

If running a company is difficult nowadays, having a strategic plan toward innovation and innovative concepts is even more difficult. Executives suffer from lack of time, pressure to produce short-term results in a rapidly changing environment that emphasizes "one surprise per day." There are difficulties in forecasting caused by internal cultural problems related to unsuccessful planning experiences from the past and avoidance of getting into more activities. Sometimes, to plan is difficult since we face the arrogance of the owners of the truth, commonly verbalized with the "this doesn't work here…"

The search for success in the current competitive environment requires companies to innovate. A traditional challenge is how to develop an innovation culture supporting the development of new products, guaranteeing growth and profitability. Given this, I think we should move further than traditional new products… How?

Innovations could be more creative that pursue the objective of creating "a concept." I like to analyze examples of companies that launched products or ideas which became concepts. First of all, let me define a concept. It is more than a product, involves a complete package of solutions, a new behavior, a culture and even a community. It is something new that makes a difference. Imagine as examples Starbucks, McDonalds or the new digital world: Facebook, Twitter, Google and other innovations that when they came to market, a new idea and a concept came together. How to create concepts?

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* First published in *China Daily* (November 23, 2010).

The new product development process has well-known and traditional activities. What I am doing here is adapting toward a broader inspiration of the "concept behavior creation." We may think in seven steps, as detailed below.

1. **Generation of concept ideas:** Ideas could be generated by consumers through chats, e-mails, formal letters, discussions, tests, surveys and communities. This involves description of their problems and suggestions and proposals for improvements. Ideas also could be given by suppliers, distributors and sales staff, by outside and inside research and development areas, employees, shareholders and others. We must be stimulated to give ideas of concepts, thinking about what are the main concept benefits; who would benefit from such a concept; what will be the occasion; what needs will be met? Talking to consumers, having consumer's labs and most importantly paying attention are challenges.
2. **Selecting best concept ideas**: It has the objective of reducing the number of concept ideas to a few attractive and practical ones evaluated in accordance with the requirements of success (reputation, brand, R&D, HR, marketing, production, etc.) and the company's competence in dealing with the issue.
3. **Strategy for marketing the selected concept ideas:** This steps plans about the size, structure and target market behavior; the planned concept positioning and details of prices, channels, communications, selling, profit goals in the long term; cost and profit estimates (cash flow statements).
4. **Building the integrated concept network:** This comprises issues such as: How to design this concept as an integrated network of contracts, participants, financial design, partners and others? Who will participate in this innovation? What is the "architecture" of the concept, its participants and tasks?
5. **Physical development and testing of concepts:** This refers to physical (actual) development of the concept, involving all tests and approvals needed. Here, we should see how consumers and other stakeholders will react and perform market tests.
6. **Finally, make it happen (launch of the concept):** This phase refers to "go to market". We should think — when? (timing choice); where? (geographic strategy); to whom? (target markets); how? (market penetration strategy).
7. **Continuous redesign:** A concept, when created, cannot last forever, and must be permanently renewed. A concept must bring value to consumer's time, ambience, building a "lock-in" strategy (try to create difficulties for the consumer to change your offer toward a competitor, have clubs and communities to support like miles clubs, cards, culture clubs, among others, a clear communication, a superior value in quality, design and problem-solution driven. And always think about how to improve.

In this chapter, I raised seven steps toward concept creation. The most important behavior that we should pursue is to pay attention, to be curious and to navigate since nice concepts are being created all over the world, one per day.

Table 56.1

Food concept creation
7 Steps - food concept creation
1. Concept ideas proposal
2. Concept ideas selection process
3. Concept marketing strategy
4. Building the integrated concept network
5. Concept physical development and testing
6. Make it happen (the launch of the concept)
7. Continuous redesign

Source: Author.

Discussion question

What new concepts could be created in your company using the seven steps discussed in this chapter?

Chapter 57

The Consumer's Risk Analysis*

Do our companies have contracts with consumers? First of all, contracts are relationships, and are either formal (written and signed) or informal such as verbal contracts that are based on trust and carry a higher value in many societies than written and formal agreements.

The difference between consumer's expectations and what is received when a product is purchased (dissonance or gap) is well studied in marketing. Companies face an era of high expectations, which bring additional responsibility. Most companies would like to have loyal consumers buying what is offered, and giving returns. The question here is how to establish these contracts.

A traditional analysis would probably emphasize that companies should have good products with quality, affordable prices, quality service, effective communication and marketing channels, sales process and others. But we can move on a different direction, which involves studying risks and looking at our offer with the consumer's lens.

The focus should be on using an opposite way of looking and coming backward, analyzing possible risks that consumers avoid when buying something, starting a relationship or building a sustainable contract. What are these risks? How to avoid them? How to modify our strategy?

1. What are the risks of bad performance (the product will not solve the need completely)? Understand what consumer thinks in terms of quality, conformity and other criteria used to measure performance are important. Several companies show the economic benefits of using the offer or product, in case of new technologies, and it is an idea.
2. What are the risks of extra time (energy expenditure) or lack of convenience in the purchase process? Consumers need simple purchase experiences, so all the

* First published in *China Daily* (March 11, 2011).

processes as seen by consumers (credit, deliver, showrooms and internet, among others) should be mapped and analyzed to become faster and simpler. Losing time nowadays is almost a crime!

3. What are the risks of money expenditure (sensation of less value for the money spent)? Understand how the consumer is putting value on our offer and what really is being offered. If there is a gap, probably the company has committed a mistake on advertisement or other marketing activity.
4. What are the risks of not belonging or not receiving pleasure, comfort and well-being within the community? Several products are purchased based on opinions, and will be used in situations where consumers will face other opinions, coming from friends, family, neighbors, colleagues and other relations. Consumers are searching for acceptance and sometimes buy a product or service linked to a wish of belonging, of "making part."
5. What are the risks to health or security related to the product? If it is a food or beverage, how is the health risk seen, and what is valued in terms of certifications and other associations.
6. What are the risks of payment (consumer finances)? Will consumer be able to pay? Could the company offer credit or other benefits?
7. What are the risks in not fitting consumer's values toward society, environment, employment and other values a consumer might have? Production processes, marketing and others should be linked to what is valued by the buyer.
8. What are the risks in reselling? For instance, the case of durable goods, that are used and then sold (like cars, for instance).
9. What are the risks in not understanding consumers' requirements? These risks are sometimes neglected. In most industries, consumers want simple solutions, or products that are easy to use and to understand.
10. What are the risks in maintenance, services, or post-sales interactions? For instance, costs related to insurances, maintenance, the inputs needed, energy consumption and other variables.

Successful consumer relationships nowadays focus on experiences. To be successful, means performing better than the competition in avoiding consumer risks and delivering benefits.

This will bring a relationship with consumers, which would tend to be loyal if companies would sustain the momentum of their research to provide a better value equation to the consumers. If the consumer perceives accommodation then we will be surprised with their new contract with a competitor. This is our risk.

This consumer risk analysis may give positive results and ideas.

Here goes a summarized table of the list of 10 questions.

Table 57.1 Consumer Risk Analysis

1 - What are the risks of bad performance (the product will not solve the need completely)?
2 - What are the risks of extra-time expenditure or lack of convenience in the purchase process?
3 - What are the risks of money expenditure (perception of less value for the money spent)?
4 - What are the risks of not belonging or not receiving pleasure, comfort and well being within the community in the purchase of the product?
5 - What are the risks in health or security related to the product?
6 - What are the risks of payments (receivables/consumer finances)?
7 - What are the risks in not fitting consumer's values towards environment, employment and other values a consumer might have?
8 - What are the risks in reselling (value of used products)?
9 - What are the risks in understanding features of the product?
10 - What are the risks in maintenance, services, or post-sales interactions?

Source: Author.

Discussion question

Use this list of 10 questions in focus groups with consumers and also internally within the company, gathering knowledge of sales and marketing people, and other specialists in order to reduce risks. The consumer will then have a sustainable contract and a profitable relationship with your company, with common benefits.

Chapter 58

Building Inter-organizational Relationships and Contracts*

Changes in the economic environment have accelerated the companies' focus in their core competencies, outsourcing noncore activities, and therefore, reducing diversification levels. In this context, the vertical integration (realization of distinctive technological phases under the same decision command) frees the space for inter-organizational contracts as an alternative coordination structure (relationships). It is the era of specialization, innovation and solution-driven behavior.

The so-called hybrid forms gain space in the universe of networks and relationships. Since hybrid forms are mostly produced by contracts, we see the emergence of smooth collaborative networks based on relationships.

Inter-organizational relationships can be formal (based on written contracts) or informal (verbal agreements). Depending on the institutional environment, both have the same value. Some societies value verbal agreements where the participants have reputation and credibility, and a formal document, therefore, is not needed to make transactions happen and to guarantee behavior. Other countries need formal documents, and in some countries with weak institutional environments, even these written documents do not have value.

Companies are getting more involved in transactions and with availability of suppliers and distributors, relationships culminate into smooth cooperation making it possible to reduce the transaction costs, with well designed contracts.

Contracts are elaborated in a mutant environment and in the presence of bounded rationality. Bounded rationality is defined as the noncapacity to foresee ex-ante, in other words, all future contingencies before the beginning of the transaction. Incomplete contracts enhance several opportunistic problems and bring undesirable transaction costs that could be reduced if the process of building a contract, of thinking more about the transaction or the relationship could be done with more time and details.

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* First published in *China Daily* (July 9, 2011).

Contracts are mechanisms that help to regulate flows. These are the traditional flows between companies, or from a seller to a buyer. When a transaction is completed, we will have the flow of products, services and communications from the seller to the buyer, and then, the flow of money, information about the product and new requests, going from the buyer to the seller. Any contract should define well the responsible actors to perform the flows. Here are the main topics considered in each flow:

Product and services flow: This includes product characteristics, inventory management, product transportation, product modification and after-sales service, customizing a product to specific needs, providing technical service, product maintenance and repair, procedure and handling of returned products, promotion about product availability, packaging, specific packaging requirements, evaluating new products, after-sales follow up, industrial consumer services, preserving quality and others.

Communication flow (from company to final customers): This refers to sales promotion to end consumers, information about product features, advertising, providing sales force, frequent visits/face-to-face contacts, packaging information, loyalty programs, website participation, traceability information and others, mostly involving new and digital media formats.

Information flow (from customer to company): This refers to sharing knowledge of local market, consumer behavior, scanning data (access to computer data), complaints via website/service line, order frequency, order formats consideration, and arranging information about consumption and others.

Payments and financial flows: This flow deals with paying for the products, conducting credit checks on end consumers, billing customers, caring for specific customer orders, arranging credit provisions, price guarantees, financing and others.

As a final comment, these inter-organizational arrangements also have a learning curve. It means that repeated transactions between companies' increases trust, making it possible to reduce costs via adoption of more "just in time" practices, reducing stocks, eliminating redundancies and collaborating more, since there is an increase in trust as "time goes by".

One of the problems to be avoided in long-term relationships between companies is accommodation and its consequences, such as lack of innovation, cost reduction and others. So even in stable relationships, some competition is important to keep innovation and reduce accommodation.

In the network economy, the process of building more complete contracts is very useful. This chapter brought some contributions to help the process of building or reviewing contracts in the era of relationships. It is a mechanism for building good governance strategies and structures.

Discussion question

How would you improve the contracts of your company?

Chapter 59

The Connectivity Era: Receiving Information*

I want to address some incredible innovations that have changed our lives, the way we do business and the companies' strategies. These changes deal with our capacity to communicate, to be tuned in and informed in a new world of connectivity.

I would like to share a personal story. Let me remember . . . "those were the days my friend, we thought they would never end . . .." From 1977 to 1978, I lived in the US, while my father was doing post-doctoral studies. Our family was in Brazil and I remembered that international phone calls were so expensive that we could communicate by phone with them only on Sundays and that too for few minutes only. Forget mobile phones, we used those old equipments with rings to dial. There was an "operator" also to work as intermediary for our phone calls.

My grandfather used to send the local newspaper in Brazil through post every Monday morning, and we received it the next Monday (seven days by regular mail). So we were abreast of the news, business, current affairs and sports in Brazil, but after a long delay. Times of the old Boeings 707 of Pan Am, that we could take pictures using our old cameras with films to be further developed.

Then almost 20 years later, in 1995, I lived in France to pursue my Master of Science degree. The period was when e-mail communication systems took root; and the nascent mobile phone industry was also taking its first baby steps. There was a central computer at the university where we could receive and send e-mails. A few innovators were using it, however, with no wide acceptance since it was not user friendly, and the only computers present were desktops, large, expensive ones with limited resources.

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* First published in *China Daily* (September 6, 2011).

During 1998–1999, I lived in the Netherlands and was doing part of my PhD. We were already using the internet, accessing a lot of online content, and doing many other computer-related tasks. E-mailing was widely prevalent and mobile phones too had become a rage. I could read newspapers from Brazil at 8 am in the Netherlands, and in Brazil, the time was still 3 am. I used to joke with my colleagues in Brazil that I was ahead of the time! So from reading the newspapers seven days later, I "moved to the future" and could read the newspaper five hours ahead. From very expensive phone calls on Sundays, in 1977, I now make free calls via the internet today. I can travel throughout the world and still keep in touch with my family and see their day-to-day lives unfold before my eyes, for free. My expenses with international phone calls came to zero.

And then we faced the web revolution. These 10 to 15 years (1995–2010) will be strongly remembered by history books, changing our lives dramatically. We are connected all time, we are informed all time, we have changed ways of entertaining ourselves. From a lot of time spent in front of television, we moved to computers that offer billions of contents pages, from both professionals and ordinary citizens. Everything is available in the internet. If we miss some information, we search, click and find the answers there. We are swamped by information all time — in our phones, computers and other devices, like the recently launched tablets. A real revolution in the industry has taken place.

Things that did not exist 10–15 years ago are now an inextricable part of our lives. Just imagine and look around now. Notice how many things that surround you now were not part of the past. Look at your mobile phone — it carries five or six industries in just one device. It is a camera, a film machine, a watch, a tape recorder, a computer, a radio, a GPS, and even. . . a phone! In the past, all these functions were performed by separate devices produced by different companies.

With the web, we can see maps, we can program trips, compare prices of products and services all over the world, follow GPS systems and avoid getting lost, economize time and money and we can even see videos of the places we plan to visit and the hotels we plan to stay. The web has reduced information asymmetries and our transaction costs.

We upload our curriculum and other personal data, we receive information about our old friends in social networking sites, both professional and personal, we meet new friends and are informed about what our friends are doing. Suddenly, old friends and contacts whom we have lost touch with over the years appear in our computers and come back into our lives.

We can join communities and receive information of promotions, we can buy together in collective buying sites and we can read QR codes and download a lot of information about a product or service.

The internet revolution has clearly divided our lives — before the web and after the web.

Discussion question

How information and connectivity can change the fortunes of your company in the future?

Chapter 60

Gap Analysis Tool (GAT) for Improving Performance*

This chapter aims to propose a tool for analyzing gaps in the sales potential of an organization when considering one of its offers and its actual sales or performance. Different from the traditional planning process, GAT allows companies to compare actual performance with potential performance.

The potential sales of an organization is represented by the upper limit of the demand in a given period of time, in a situation where most the following aspects reach its full potential: maximum number of possible users; maximum usage per time (utilization rate); maximum proportion of consumers using and maximum frequency of purchase among other situations that takes us to the limit of the market of a given offer (product).

Achieving the sales potential of an organization becomes a difficult task as the current market is very dynamic, competition is intense and there is great difficulty in forecasting future scenarios in a fast changing environment and changing consumer behavior.

The difference (gaps) between the total sales potential of a market for a given product, the total sales potential of an organization and its actual sales indicates the rate of development or underdevelopment of the organization and of their markets.

It is important to remember that larger existing gaps means that markets are less developed and therefore there are greater opportunities for growth.

There are two major types of gaps. Gaps that are internal in a company (related to the offer of the company) and gaps that are external, related more to market conditions, competitors and others. Here, I will describe possible internal gaps.

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* First published in *China Daily* (January10, 2013).

1. **Product, packaging, brands and service gap:** This seeks to reevaluate aspects such as size, style, shape, packaging, and others in order to reduce possible errors of alignment between the product or service and their target market positioning. The question is: what are we missing in the product?
2. **Communication gap:** seeks to identify and reduce errors in communication actions of the product or service, such as an advertisement in an inaccessible local to the target market and others. The question is: what are we missing in communications?
3. **Marketing channels' gap:** seeks to identify existing problems in marketing channels of product or service, for example, is the shelf space for a specific product in line with the goal of product sales, or even geographical distribution issues? The other question is: what are we missing in channels?
4. **Sales force gap:** seeks to identify factors related to inadequacies in sales force — people, training, sales structures, among others. The question is: what are we missing in sales force?
5. **Pricing gap:** This searches for inefficiencies in the system of pricing of products and services, whether the pricing strategies adopted are consistent with target markets, competitors, production costs, among others. The question is: what are we missingin pricing?

   After these five possible areas of gaps that may occur internally in companies, we should look for gaps outside the companies that is shrinking sales or making it more difficult for companies to reach the potential market.
6. **Current offers from competitors:** seeks to analyze the organization in comparison to its competitors, aiming at solving the inefficiencies and increase its competitiveness. Actions such as product differentiation are widely used as a movement to show the company or the offer different from the competitors. The question is: what are we missing when compared with our competitors?
7. **Substitute products gaps:** By studying the substitute products and the gaps caused by them, companies should reevaluate their positioning and search for tools that allow comparisons to identify potential advantages and explore these. The question is: what are we missing in relation to substitute products?
8. **Market potential gaps:** seeks to identify and overcome obstacles that are hindering the growth potential of the given market. It is necessary to search for new customers, encouraging the use and increasing consumption, for example. This can be done collectively, by the industry associations, in order to improve consumption. An example is the marketing efforts taken by the milk industry in the US, with the famous Got Milk campaign, and others. It is a win-win situation to attempt to increase the overall size of the market so all companies will gain. The question is: what are we missing to increase the overall market?

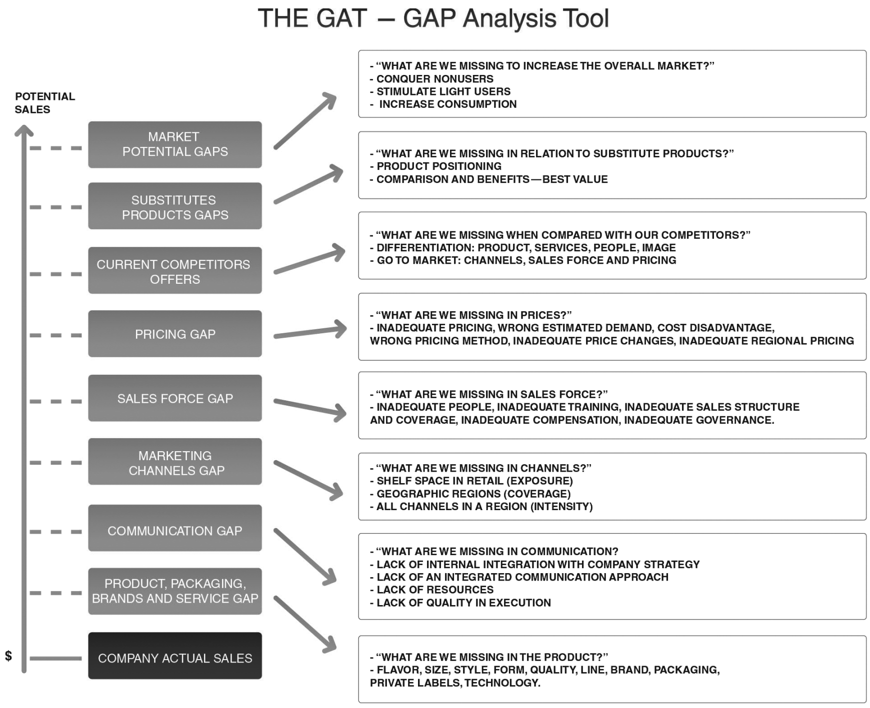

Figure 60.1 The GAT — GAP Analysis Tool

Source: Author.

Discussion question

This Gap Analysis Tool can be useful in carrying out a backward process — from the mistakes committed towards the strategic projects needed. Try to perform it in your company.

Part 4

International Investments & Role of Governments

Chapter 61

Building a Strategy for International Investments in Food and Agribusiness*

I have four objectives in dealing with international investments: (1) raise the "good and bad" points, (2) address the need for a country/regional strategy, (3) address the need for companies to globalize and search the world for opportunities and (4) elucidate the role of government.

There is still a debate as to whether receiving international investments is good or not for a particular country or region. We should not advocate for one side or the other, but obtain all points of view and then perform an analysis. International investments do have their advantages, as discussed in the previous chapters, if they promote development, by bringing access to international markets and expanding the export capacity of the country, creating jobs and generating taxes for governments, bringing knowledge to a country, bringing credit and instilling confidence, among other things, to a country. If a country receives international investments from a world class company, it is an endorsement for development and other investors.

The major objections that I received from opponents of international investments were linked to expatriation of resources from countries, exploitation of these resources until their depletion and exclusion of the possibility of future generations of that country using them in the future, taking profits away from local economies and bringing cultural shocks and changes to local communities. Others fear the damage to competition in a country, due to the global capacity of a multinational company that can even promote dumping on local markets, compensated by good results in other countries, in order to destroy local competition. This may bring exclusion of local companies in the long term. There are also some nationalist feelings, that

* First published in *China Daily* (May 6, 2010).

only products produced in the country, by a local company, are good for the local society. These points should be considered.

In my view, with a good strategy and a good regulation system, a country can try to avoid these pitfalls, maximizing the benefits of these investments. The first criterion for any country and government would be a good strategy, a strategic plan for the country, looking 10 to 20 years ahead, which I see as a not-so-common thinking of governments. Only with a good strategy, it is possible to attract a country or a region, companies that are linked to the potentialities of the region, with expertise, with guaranteed demand (international contracts), clean production systems, high technology (biotech/nanotech), and also assurances that units of research and development and part of the headquarters of these companies would be based in the country that is receiving this investment.

Let me at this point give you the example of Brazil, a country that is experiencing huge inflows of international investment, major economic growth and income distribution, putting pressure on infrastructure, and booming internal markets. Brazil will also host two major events that companies could be taking advantage of: World Soccer Cup in 2014 and the Olympic Games in 2016. A good strategy would be to attract investments from international companies that would immediately fit in with conditions of the country and its opportunities. There would be Spanish, American, Asian and other chains (like Melia, Hilton, Sheraton, Shangri-La) introducing and expanding their networks of hotels (business); investments in entertainment (arenas, parks, museums); companies wanting to produce energy and infrastructure logistics (roads, trains, airports and duties); airline companies (now allowed to make up 49% of local companies' shares since it is one of the fastest growing markets), construction investors to build second homes for the retired Europeans visiting the year-round sunny northeast beaches of Brazil (a six-hour flight from Europe), and in universities, a booming sector due to demand in education. There is also room for investments in food, like New Zealand milk farmers wanting to expand globally, Belgian chocolate companies, Australian/Uruguayan sheep farmers and slaughterhouses. These are just a few examples to point out some areas where a strategy would fit.

But all countries and respective governments, when going to international markets to attract investments, should do their homework or the basics of the basics. These basic criteria should include: stable economy (growth, low inflation, interest rates, internal demand); good human resources and talents; reasonable and competitive infrastructure, security for people, reasonable tax and financial systems, good governance with austerity or simplicity to facilitate better management (get rid of bureaucracy, which is mostly associated with corruption). A country also has to offer basic resources (energy, land, sun, water), capable suppliers and distributors, and institutions (judiciary system) that are trustworthy and able to speedily resolve problems and disputes. This homework, together with a capable strategy, strong regulation systems and simplicity will create the right environment for international investments to come in and promote sustainable development.

Table 61.1

A Strategy for International Investments.

OBJECTIVES	STRATEGIES
1. Raise these "good and bad" points	
2. Address the need of a country/region strategy	
3. The need of companies to seek the world for opportunities	
4. The role of Government	

Source: Author.

Discussion question

What are your views towards international investments? List opportunities that could arise for your company.

Chapter 62

How to Promote and Regulate International Investments in Food and Agribusiness?*

There is plenty of knowledge available about the possible benefits of international investments to an economy. In this chapter, I will deliberate the issue of building an institutional arrangement in a country that is desirous of seeking international investments, since they may have both positive and negative impacts. Considering this, certain regulations are important to avoid negative impacts from transnational companies' investments, and to enhance the positive effects of these foreign direct investments.

There are eight major topics that should be studied and covered by public policies. The objective here is to facilitate local, state or even federal governments and agencies in setting up a framework where international investments can be attracted to promote development and avoid possible negative externalities.

The first one relates to the governance structure of the investments. Here, we may consider the wide range of possible investments (joint-ventures, vertical integration, franchisees), money entrance conditions, promotion policies to receive these investments, safeguards for risk protection (invasion, expropriation, fees, etc.) and other considerations. Some questions would need to be deliberated: How will direct investment take place? What types of assets ownership (land, industry and others) must be considered and planned? How will the stimulus package for these investments (like energy supply, logistics and other related to infrastructure) be built? and finally, How to remove the existing obstacles to attract investments?

The second topic relates to environmental protection, focusing on policies of water usage, agricultural practices (soil conservation, harvesting, among others), policies on pollution control, sanitary measures, international standards and certifications that will be required and, finally policies regarding conservation and rights over the country's

* First published in *China Daily* (March 10, 2010).

biodiversity. Some companies are accused of not having the same environmental practices they have at home, and this should be avoided by means of suitable policies.

The third topic deals with the regulation of human resources. These regulations may include salaries, labor and wages, benefits, working conditions, corporate social responsibility, ethics and codes of conduct and community relations. This is one of the most important topics, since most problems with international investments that occurred in the past were due to mismanagement of human resources.

Taxation policies (taxes) is the fourth topic that must be defined for transnational investments. Questions regarding the structure of taxes and tax policies, export tax policies, purchase and compensation taxes and possible temporary government tax incentives for the investment to be made, or to be stimulated, are the focus of our analysis here.

As the fifth topic, we have research and development policies. At this point, the most relevant would be a kind of stimulus to improve development of local knowledge and R&D. Property rights, licensing contracts and royalties must be discussed. Stimulus for linkages with local research organizations and institutions can be an important incentive to integrate and promote development.

The sixth topic is related to investments in agricultural or agribusiness, and deals with joint actions for farmers and industry. It is important to have policies stimulating the linkage of international investments to local organizations, an incentive for the formation and sustainability of cooperatives and associations, induction for farmers, co-ops and organizations to build sustainable relationships with the international investors, and incentives for building sustainable supply contracts. It could be important also to establish a framework for resolving disputes and even private arbitration.

The seventh topic relates to financing and credit involving discussions and implementation of policies that allow international investors to access public sources of financing, state banks and public credit lines. Such credit offers may be linked to the technology of the international investor and ensures possibility of growth.

Finally, the last topic relates to policies regarding market access. In each of these policies, there are suggestions of incentives for international investments. These may include government purchase of products generated by the investment and facilitating local access to investors, international agreements for market access to improve export channels of this new entrant and general competition policies. In food investments, it is also important to evaluate and promote food safety policies to facilitate international market access.

The relevance of studies in international investments for food production is of fundamental importance. It is well known that food production needs to be enhanced and in order to accomplish these needs, international investments are of fundamental importance. At a time when countries are establishing policies regarding food security, with governmental and private funds being allocated to buy land abroad and secure food supply, the role of these investments increase in importance. This chapter provides governments, agencies and companies involved with international investments with a list of eight major topics (see Table 62.1) that must be considered for regulation of these investments in order to bring as much sustainable economic development as possible.

Table 62.1

Suggestions for public policies regarding foreign investments in agribusiness

8 major topics	Suggestions for Public Policies and Incentives to International Investments in Agribusiness
Governance Structure	→ How direct investment will take place and sorts of assets ownership (land, industry and others); → Entrance conditions of resources (money flows); → What the promotion policies for FDI will be; → What the safeguards for the protection against risks (invasion, expropriation, fees, etc) will be; → What the stimulus package for investments (energy, logistics and other related to infrastructure) will be and how to remove obstacles to attract investments.
Environmental Protection	→ Policies on water use; → Policies on agricultural practices (soil conservation, harvesting, among others); → International standards and certifications that will be → required; → Policies on pollution control; Sanitary policies; → Policies on conservation and rights over biodiversity.
Human Resources (people and labor)	→ Rural labor and wages; → Working conditions; → Benefits; → Community relations; → Child labor; → Corporate social responsibility; → Ethics and codes of conduct; → International labor.
Taxation	→ Structure and tax policies; → Export and tax policies; → Purchase and compensation taxes; → Temporary tax incentives.
R&D (Science and Technology)	→ Development of local knowledge and incentives for local development of R&D; → Property rights and other protection forms, licensing contracts and royalties; → Linkages with local organizations/institutions as an incentive.
Joint Actions for Farmers and Suppliers under Contract (Commitment)	→ Linkages to local organizations; → Incentives for co-ops/associations formation and sustainability; → Prepare farmers/co-ops/organizations for the relationships; → Sustainable supply contracts; → Dispute mechanisms and private arbitration.
Financing and Public Resources	→ Access to public sources of financing; → Access to state banks and credit lines.
Policies on Market Access	→ Government purchasing policies and access to investors; → International agreements for market access; → General competition policies; → Food safety policies for market access.

Source: Author

Discussion question

Which are the most relevant regulations in the list and how would they affect your company?

Chapter 63

How to Evaluate International Investments' Capacity to Promote Economic Development?*

In this chapter, I want to talk about the importance of receiving international investments for all nations, but mostly for developing nations, and try to point out a gap in the usual analysis. What gap?

Local or federal governments and other institutions sometimes have difficulties in evaluating the capacity of an international investment in promoting economic development. This can also make it difficult for governments to define a specific benefit or support to be derived from this international investor company, or to convince the local community of those benefits for developing the region, moving the economy forward, generating jobs and exports, and other benefits.

When a transnational company (TNC) comes to a country, it normally comes with several types of resources, not only financial. We will analyze these resources. I want to categorize these resources on a list of six points in order to assist governments in evaluating international investments in a country. The better the investor can perform on this list of resources, the better these investments will be. This is based on several discussions I had in 2009 at Geneva, on a UNCTAD/ONU project. This list is different, however, since it looks also at the local supply chain of a company. If a company can build a strong integrated supply chain, there is a greater possibility for more economic development. The six topics, with their own sub-topics, are given below. It will help the reader in understanding the concepts — you may imagine an international food industry investing in a new country.

1. Financial Investments and Expertise — Here, we may consider the amount of money that will be invested, and in relation to the investments, whether

* First published in *China Daily* (February 21, 2010).

the company can provide capital, open credit lines giving the needed guarantees for suppliers (for instance, local farmers), gain access to government official credit, has knowledge of credit operations and bureaucracy, has access to international credit and generates a good reputation for the region and the country. We should also look at the capacity for generating the benefits of foreign currency through increased exports and finally, the amount of employment generation.

2. Capacity to Provide Technical Assistance — Normally, a TNC has a "how to do package" for its suppliers, helping with farm support, support of sustainability policies and sustainable practices, participate in activities of research and development, support to achieve standards (ISO, etc.) and transferring of skills that will promote economic development.

3. Sourcing of Input Supplies to Farmers — TNC food companies can help farmers by providing them with uptodate seeds, machinery, genetics, fertilizers and chemicals, helping them to produce with the most recent technology.

4. Management Assistance and Service Provisions — This refers to evaluating the capacity of TNCs to deploy economical/financial controls to assist farmers and suppliers through training and farming management, transportation and storage, communication skills and certification. TNCs could also render support the demands for public investments in logistics and infrastructure in that country or region.

5. Capacity to Provide Market Access — This is one of the most important concepts. A TNC could arrange international sales contracts, providing access to marketing channels, access to niche markets — organic/fair trade/others, providing information on market trends, helping farmers decide what to grow, and enabling reduction on price volatility through long term contracts.

6. Farmers' and Suppliers' Organizations — This is the last concept, one not usually considered or evaluated. I think a TNC should also be evaluated by its capacity to help farmers or suppliers in building what is called "countervailing power", to reduce power imbalances in modern food production chains, although this may sound impractical. This can be achieved by stimulating the establishment of local organizations, stimulating the arrangement of cooperatives, building networks of local producers and incentives for cooperation. It is not easy, but I consider "inclusion" to be one of the most important words for the next 10 years!

Finally, the relevance of studies on TNCs involvement in food, agri-business and agriculture is of fundamental importance. Food production needs to be enhanced in order to accomplish these needs. At a time when countries are establishing policies regarding food security, with government and private funds allocated to buy land abroad and secure food supply, the role of TNCs increases in importance. There are several lessons to be learned by developing nations trying to attract international

Table 63.1

Impact of TNCs on local community

Resources of TNCs	Impacts on Local Community
Financial Investments and Expertise	➔ Providing investments (capital); ➔ Opening credit lines giving the needed guarantees for farmers; ➔ Access to government official credit; ➔ Knowledge of credit operations and bureaucracy; ➔ Access to international credit; ➔ Inward investments contribute to a good reputation for the region and the country; ➔ Foreign currency generation through the increase of exports; ➔ Employment generation.
Input Supply to Farmers	➔ Seeds; ➔ Machinery; ➔ Genetics; ➔ Fertilizers and chemicals.
Technical Assistance	➔ "How to do package"; ➔ On farm support; ➔ Support on sustainability policies and sustainable practices; ➔ Execution of research and development; ➔ Support on standards (ISO, etc.) ➔ Transferring of skills; ➔ Supply of higher standard products within the internal market.
Management Assistance and Service Provisions	➔ Assistance on economical/financial controls; ➔ Training and farming management; ➔ Transportation and storage; ➔ Communication; ➔ Certification; ➔ Results/profit of the farm; ➔ Support to demands on public investments in logistics and infrastructure.
Market Access	➔ Arranging sale contracts; ➔ Providing access to marketing channels; ➔ Access to niche markets – organic/fair trade/others; ➔ Providing information on market trends, helping farmers decide what to grow, and enabling reduction on price volatility.
Farmers' Organizations	➔ Establishment of local organizations; ➔ Stimulating the arrangement of cooperatives; ➔ Networks of local producers; ➔ Incentives to cooperation.

Source: Author.

investments, in agriculture, industry or other fields. Table 63.1 summarizes the potential impact of TNCs on local communities.

Discussion question

Which are the most important impacts brought by international investments?

Chapter 64

Land for Free... Is This Possible for Food Companies? The CODEVASF Case*

We all know about the need to increase food production, to face the incredible development of emerging markets and new consumers, and the scarcity of land and natural resources available in the world to face this challenge.

In this chapter, I want to comment on one of the most impressive ideas for regional development, discussed at one of the renowned Harvard Seminars. This is the case of Codevasf, a company owned by Brazilian government, and dedicated to the development of the semi-arid Sao Francisco and Parnaiba River Valleys, in the northeast of Brazil. This company has come up with a different concept of land occupation and regional development.

First, let me introduce the reader to these two valleys. They have around 960,000 km2, with an irrigated land potential of 360,000 ha, in the Sao Francisco Valley alone. In 2010, 120,000 ha were implemented by Codevasf, with 50% being used by 100 companies, mostly for fruit production and some processing (dried fruit, juices and wine). This area is responsible for US$ 300 million exports per year (40% of total Brazilian fresh fruit exports, and 100% of Brazilian mango and grapes export). It has around 2,800 hours of sunshine, which allows year-round crop production, with enough fresh water for irrigation, and good transportation and connections. The average temperature is 25–30°C, with a well-defined rainfall. These specific conditions allow producers to take advantage of market windows for fruit exports.

Over the past 40 years, Codevasf has built 28 irrigation projects. In the past, Codevasf purchased nonimproved land, built infrastructure (roads, energy,

* Harvard Business Shool (2010). First published in *China Daily* (February 11, 2010).

administration) and irrigation systems (canals and pumps), divided the land in areas from 5 to 200 ha lots for investors, attracted farmers, made water and energy available. Codevasf also charged fees based on the lot size, to cover operations and maintenance and the producer paid energy fees to the energy supplier. After the land was occupied and the project was ready, Codevasf transferred responsibility for operations and maintenance to an association of producers, named District.

So why did this old model fail, resulting in more than 50% of the land standing idle? Mostly because it was production-driven, and not market-oriented or demand-driven. Some factors that caused failure include: lack of marketing, excess production, low prices, lack of coordination, lack of innovation, products only directed for local consumption, subsistence farming by some producers, opportunistic intermediaries paying low prices to farmers, lack of scale, bad selection of producers and complicated proprietary issues. As a consequence, the yield from taxes was nil, there was no economic development and no return for all the investment made in the region by government.

In 2010, after five years of working together with the World Bank and the University of São Paulo, Codevasf has proposed a new concept. This concept already has an approved invitation to bid, and the auction is expected to be held in 2010. (For more information, see www.pontal.org.)

The Brazilian government wants a consortium company (this can be an engineering company plus a food processor) to occupy the area. This consortium will receive the land for free, and within six years, it has to finish constructing the common irrigation infrastructure (US$50 million, which will be reimbursed by government), and establish agricultural operations in all 8,000 ha. It will be responsible for the Pontal water supply and its operation and management (estimated costs of US$3.8 million/year, also reimbursed), and install one or more anchor companies (food producers), and other new concepts: this anchor food company should have a minimum of 25% of the land (2,000 ha) occupied by local farmers (suppliers), selected among 1,500 farmers listed by Codevasf, with a maximum area of 20 ha each.

This food anchor company should be demand-driven and have coordination capacity. The government expects it provide training to the farmers and have financial capacity. The company should also be able to face market risks, have capacity to deal with a diversity of fruits and processed foods.

The Pontal project has 30,000 ha of total area, 8,000 ha being irrigable. It will have a huge impact since it will be the first PPP of the Lula government and will set the framework for another 500,000 hectares. The objective is sustainable agricultural production, facilitating regional economic development. The land will be granted for 25 years, plus preference for a further 25 years. The greater the number of integrated farmers (suppliers) offered by the consortium and the anchor company, the greater is the chance to win the bid and get this 8,000 ha irrigated land for free.

This is a new concept, where government is paying for land occupation in a modern and integrated way. It represents an outstanding opportunity for food companies wanting to expand production outside their traditional borders, to complement and diversify their offer, without having to buy this land. This new concept of integrating small holders into modern food chains impressed the more than 200 executives who discussed this opportunity at Harvard, and is a possibility also for the governments in developing countries to develop some areas economically, with inclusion, which in my view, is one of the most important word for the new decade.

Discussion question

Which are the strong points and risks involved in this alternative form of investment?

Chapter 65

The Benefits and Risks of Governments Supporting Local Companies to Internationalize*

In the last couple of years, public development banks in some emerging countries provided strong support to local (national) companies to make acquisitions outside, expanding their operations to other countries. To build the so-called "national champions," billions of dollars were invested and these investments gave different returns to local societies that financed it.

In the specific case of Brazil, some large corporations processing animal proteins, among other sectors, received support, which meant financing at lower interest rates than the ones available with private banks. This strategy built up global leaders in the beef and other meat producing chains, benefiting from the strong value of the local currency, the Real, in these acquisitions.

Some beef companies diversified their product lines and became animal protein processing companies (acquiring poultry and pork production lines, products and brands) and further expand their strategies to broader food companies with a complete product line, from meats to milk, from ready to eat meals to pizzas and desserts. It is the emergence of new competitors for the traditional multinational food companies. In the opposite direction, the market has seen poultry companies diversifying to beef, milk and other products.

The objective of this story is to list what could be: (a) possible benefits for local governments and as a consequence, to local societies to build these "world champions," and (b) the major risks involved in such operations. The possible benefits are that these outside acquisitions could justify investments by helping to promote exports coming from the original country. This could be possible with more market access, one of the most important assets that come with an outside acquisition. For

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* First published in *China Daily* (October 26, 2011).

instance, when a Brazilian company acquires a company in Italy, or in China, it acquires access to these markets. This access includes a local sales team, access to supermarkets and other marketing channels and knowledge of communications. It also includes the acquisition of local brands that may have tradition and connection/intimacy with consumers, instead of exporting with a national brand and building a new brand from zero, a very expensive and challenging activity in a different market.

A second bundle of possible benefits is related to business expertise, such as how to finance activities in this new country, the knowledge of institutional environment (laws/lawyers) and other benefits linked to the intangible assets of employees that come with the acquired company.

The international investor acquires knowledge of the local supply chain and suppliers' base (original suppliers of the acquired company). Another strategy is to introduce original management style and practices in the newly acquired company along with possible value capture achieved with effective management and cost reduction.

By considering the original country as a major new supplier to the acquired company and expanding the product portfolio from one source of protein to others and then to milk and food products, they (original country company) will become exporter of several other products that are components (pizza, pasta, tomatoes, etc.) which originally were not exported to that market. This also involves packaging in the case of ready to eat foods, design and other supporting functions, that would be done in the original country and sold internationally.

Another possible benefit for the society would be to bring earnings and profits conquered from international sales to local shareholders, like the traditional flows of multinational companies repatriating money. Finally, when a company operates in several countries, it can be matching different supply sources and international channels using specific products and brands coming from supplier countries to fit consumers needs — in essence, capturing value with global trade.

Although there are several possible benefits, some risks are present within these international investments sponsored by local banks and societies.

One debate is related to which companies will receive the support, or will be preferred by government's official development banks. Criteria should be well defined since these investments require public money. Another risk comes with the complexity of managing processes of different companies, running businesses in different countries, different cultures and different environments. Sometimes the local company is not prepared for this rapid growth. Which business to buy should be considered, from mature industries with low margins or promising new ventures be purchased? Where to buy requires consideration of all the risks — in mature markets with compressed margins and powerful retailers or in emerging countries, that occasionally experience growth of 15% per year in some food markets?

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The moment (when) of the purchasing operation also requires careful consideration, since an overpriced asset acquisition makes it difficult to recover. Exchange rates fluctuation is also a possible risk, since debts are in US dollars, and devaluation of the local currency, used for this purchase, may happen transforming it into an expensive acquisition. Finally, there are the learning costs of facing unions, syndicates, suppliers' associations, governmental regulation and other barriers for new players coming from outside.

It is little bit premature to evaluate these investments and the conclusions cannot be generalized to all businesses. This chapter highlighted some contributions to the debate on the benefits and risks involved.

Discussion question

What are your views about the opportunities and risks of receiving governamental support to promote development?

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Chapter 66

Colombia: An Example of the Role of Governments*

In the last years, we started receiving good news from several sources about the turnaround that the country and major cities went through. I heard about the wonderful geography and had a taste of the enthusiasm of the Colombian people, interacting and teaching to exchange students from EAFIT University of Medellin studying at University of São Paulo, in Brazil.

Colombia just came out of an eight-year recovery process initiated by the government to give back the country to the organized society after decades of difficulties. The major efforts were related to security, with a strong battle against illegality. In parallel with these efforts, efficient government management, organizing and building strong institutions, attraction of international investments, promotion of business associations, discussion forums and efforts to improve exports via building bilateral agreements with important markets. From a country that people had fear to go, it has now been transformed to a country that attracts tourists.

A planning process was carried out to discover the competences of each region, resulting in differentiated regional policies and agencies for development, with attention to the articulation of the agents. This was done to promote competitiveness based on the traditional clusters approach (bundle of integrated companies with a regional delimitation). The government also worked with investments in education and efforts to attract back the Colombian talents to the country. The Colombian Coffee is one of the most successful examples, with farmers' coordination, investments in promotion, in marketing channels and others.

Based on presentations from government, a second wave of development is now needed. How to innovate? According to their 2032 plan, Colombia is focused on building world class businesses, with regional commissions of competitiveness. The

* First published in *China Daily* (July 5, 2010).

new government, elected with almost 70% of the votes, promised to continue with strong and dynamic economic development, with social policies that would allow generation of opportunities and inclusion, as there is a lot to be done with millions of people still in poverty, exclusion, violence and drugs. It is a permanent battle.

It is a pleasure to talk to Colombians. Medellin is a happy city, a city with hope. We can sense this happiness in taxi drivers, who are always a wonderful repository of information and have terrible stories from the past to tell. One exciting visit in Medellin is the Metro system.

There is a "metro culture" that makes this public facility really an institution, admired, respected and protected by the community. You can find music, the streets are clean, libraries are functioning well along with other sources of entertainment. It is not common to see this in less developed nations.

There is one metro line that runs north to south, since the city is a valley surrounded by high mountains in the east and west sides. In some parts of this line, there is the "Metrocable," a system of cable cars that links the metro line toward the top of the mountains, full of slums (called "comunas"), integrating these forgotten regions to the city. Places where a person would take one hour walking up the mountain after working all day, now takes 10 to 15 minutes in the cable car. There are some stations during the journey, where people can get in and out. Libraries, cultural centers, leisure/sport facilities, playgrounds for kids were built in these poor communities and these public investments have enriched the lives of its people. Quality of housing has been improved along with the surroundings, citizenships have been provided and inclusion of all ranks of society has been achieved. It is a place to be visited, one of the most beautiful inclusion initiatives that I have seen.

Governments have an important role in promoting economic growth, income generation and distribution, geographical equilibrium and access to opportunities. Promoting a favorable environment for development of clusters is one possibility, other strategies would include enhancing coordination, improving innovations and technological transfer, reducing lack of trust among agents and promoting exports and access to markets. To visit Medellin and Colombia is an injection of hope that we can change, even in the most difficult situations.

Discussion question

What are the lessons to learn from the turnaround of Colombia?

Chapter 67

Incorporating Small Holders into Modern Food Chains*

Earlier in this book, I referred to the importance of including small holders and small companies in modern integrated food chains to promote development and income distribution. In this chapter, I want to discuss four dimensions that are important for reaching this objective of inclusion, based on my experiences in Brazil.

The first dimension is that of project management. All projects must have strict criteria in terms of viability and attractiveness. A rigorous analysis has to be done first by gauging the technical feasibility of the activities one intends to attract to a specific region. For instance, food processing requires different models for estimating agricultural and industrial investments and costs. It is also extremely important to analyze the market conditions of the product to be produced. It is clearly a mistake to insist on producing and industrializing products with many competitors when you have no clear regional competitive advantage. It is important to understand demand behavior, quantitatively and qualitatively. All investments today must have a very strong, world-class project analysis, and even more so if they are supported by federal or local governments.

The second dimension that affects sustainable regional development is integration. In fact, this is the most relevant factor. Many investments fail because they lack a holistic view that considers chain coordination and integration. A firm must buy competitively from suppliers and sell to distributors and end consumers. The way the firm manages relationships with these agents is fundamental to its development. These relationships may range from vertical integration to contractual arrangements or spot market agreements. This is the basic thesis of the 2009 Economics Nobel Prize winner Oliver Williamson's discussion on the boundaries of the firm. In regional development, governments may think of attracting an anchor firm that leads production, with control and knowledge of demand information. Take as an

*This chapter has Luciano Thomé e Castro as a contributor. First published in *China Daily* (October 13, 2009).

example a juice industry as an anchor company coordinating all regional fruit growers. The challenge will be to coordinate supply transactions with small holders.

Different governance modes, when seen from a social perspective, have different consequences. Vertical integration (where the anchor industrial company owns farms) creates jobs, salaries, taxes, exports and might transfer knowledge from the firm to the employees by means of training programmers, and where, in fact, employees may become entrepreneurs later on. Buying from large growers based in the region also generates the benefits listed above, except for a quicker technological transfer due to the fact that there are some independent producers and more employees linked to them.

Buying from small holders and cooperatives may be even better in terms of wealth distribution and development, when there are a large number of rural families involved in production activities.

Attraction of anchor companies helps increase the growers' capabilities with private knowledge transfer and credit facilitation, since one of the biggest challenges for small holders is access to credit for financing investments and production. A possible form and a key research agenda is public incentives and advantages for projects that involve a large number of small producers.

The third important dimension is that of business. It has to be clear that all the agents have to generate profits above their capital costs. In the case of small holders, the income must be high enough to keep them motivated and committed to the activity.

This is the basis for long-term orientation of the producing chain and for economic sustainability. It is important to mention the need for innovation and quality improvements that any chain should possess, and this could be done by linkages with local research centers, universities and technical consultants. All parts of the integrated chain must have a long-term perspective.

The fourth and last important dimension for regional sustainable development is the sustainable dimension. Sustainability comprises three different components: environment, economic development and equal wealth distribution for the participants. It is important to motivate national and international environmental certification processes, because they help prepare the firm and the region to attend to environmental criteria and later on to open markets. Companies should invest in market segments like organics, fair trade, and promote social inclusion of poor communities.

Sustainable inclusion is the main agenda for private and public sectors for the next 10 years. This chapter has presented the four dimensions that should be taken into consideration by governments and private companies when thinking in terms of new development projects to promote inclusion that is sustainable, profitable and contributes to growth of the economy, income distribution and wealth (see Figure 67.1). Table 67.1 summarizes the different dimensions.

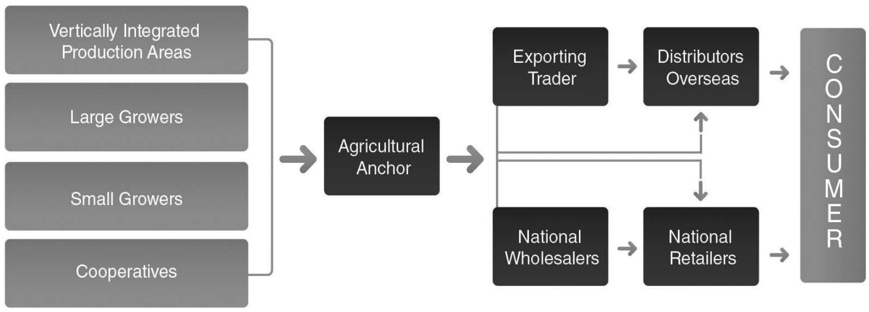

Figure 67.1 The integrated and sustainable agribusiness framework.
Source: Author.

Table 67.1

Different dimensions to integrate smallholders into modern food chains.

INTEGRATED	SUSTAINABLE	BUSINESS	PROJECT
→ Inter-organizational → Chain and Network → Perspective → Technological Transfer and requested specificities → Cooperatives → Associations → Government participation → Coordinated system → Public banks' participation	→ Environmental Friendly → Fair trade → Organic → Job creation → Social development → Regional development → Working conditions	→ It is made for profit attainment → Cost control → Innovation → Continuous search for competitiveness → Quality refinement	→ Rigorous analysis → Rigorous marketing analysis → Organization, scheduling, implementation

Source: Author

Discussion question

What are your views of the concept of an anchor company to promote development?

Chapter 68

Social Inclusion in Modern Food Chains

This chapter discusses an important point in food and agribusiness — the point of inclusion.

Figure 68.1 shows a schematic representation of the balance in supply chains, and how to reach economic sustainability.

In the first box (left), events that contribute to profit falls or losses in the agribusiness chain are listed. They are: concentration of processing industry in search of scale, specialization and higher margins (e.g., there are 10 different suppliers of inputs in one production chain, for 10,000 farmers, for just four processing industries); concentration of suppliers inputs (as well as the processing industry seeking margins, expertise and scale, offering a complete package of solutions to the customer); increase in the transaction costs; vertical integration, where the industry itself becomes an agricultural producer (e.g., sugar, orange); huge projects in large properties, such as the investment funds that are buying land; lack of a successor in the lifecycle of family, whether for lack of vocation for the land, whether by family conflicts; administrative incapacity because of poor education, or productive inefficiency; failure in communications, where important information does not reach the producer; lack of technology; lack of confidence on the part of farmers toward the government; and other investment opportunities that have emerged over time.

All these factors, as already mentioned, may generate losses and result in brutal reduction and consequent exclusion of farmers, causing social problems and concentration of wealth, thereby reducing the rate of development. In order to combat this, there are some actions that aim to redirect the portion excluded, whether public or private actions.

Social policies are needed, especially in areas that are not competitive and not linked to agriculture, and this is role of the government and not of the agriculture chain.

In the private sphere, there are certain actions that prevent the exclusion of the producer of land, such as cooperatives, associations, by providing necessary and relevant information; their representation; their relationship; their support; trade unions, among others. Industry itself can take some actions that benefit the producer by providing technical assistance, or initial investments for agricultural production.

Moreover, there are some government incentives that can benefit this part of rural producers, generating more profit for them. They are: reduction of taxes; funding opportunities; training organizations; existence of specialized research and development, flexibilities in legal provisions (contract, labor, etc.); buying for institutional market (school feeding, hospitals); regulation, among others.

Thus, the industry also benefits, through either image and marketing, or the guarantee of supply and increased stability; reduced risks, lower transaction costs and loyalty of suppliers.

Discussion question

What are your views about inclusion? How could this model help in understanding the problems and in proposing solutions?

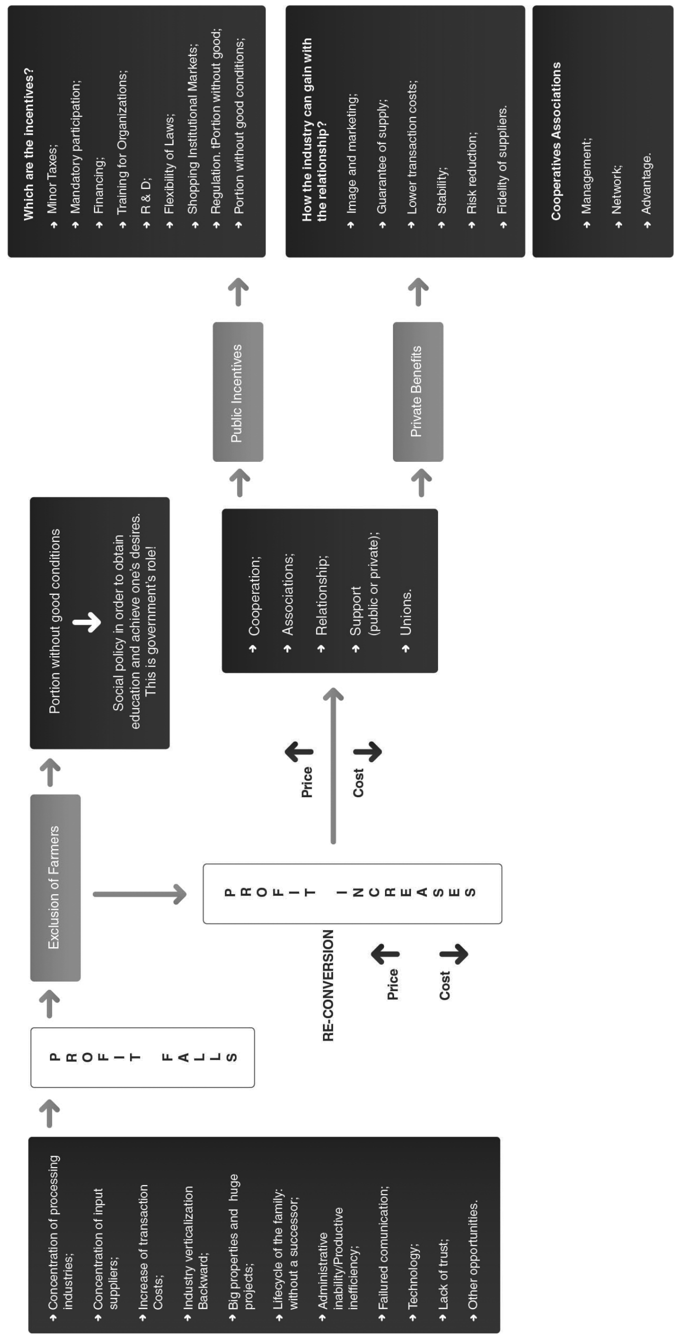

Figure 68.1: Inclusion in modern Food Chains.

Source: Author.

About the Author

Marcos Fava Neves obtained his Bachelor's degree in Agronomic Engineering from Escola Superior de Agricultura Luiz de Queiroz, University of São Paulo, in 1991. He then obtained his Master of Science (1995) and PhD (1999) degrees in Business Management from FEA/University of São Paulo (his theses were titled "Planning of International Distribution Channels" and "Demand-Driven Planning and Management," respectively). He completed his post-graduate study in European Agribusiness & Marketing in France (1995), and in Marketing Channels and Networks in the Netherlands (1998–1999). He is specialized in developing strategic planning processes for companies and food production chains. He is currently working as Professor at the School of Business, University of São Paulo.

Professor Fava Neves has extensively worked on both public and private projects and has been a member of PENSA Agribusiness Program since 1992. In 2004, he created the Markestrat Think Tank Group, working on projects in strategic planning and management. During these years, he worked on strategic planning and management for the beef chain (2012), cotton chain (2012), milk chain (2007), orange juice chain (2007), sugarcane chain (2007), wheat chain (2004), and implemented 10 productive chains in the Sao Francisco Valley during 2007–2008. Professor Fava Neves also worked on strategic projects for a number of private companies such as Syngenta, Cargill, SantelisaVale, Renk Zanini, Branco Peres Sugar Group; Zilo Lorenzetti, BASF, Holland Genetics, Netafim, Wolf Seeds/Naterra, Monsanto, Tigre, Orsa Packaging Company, Crystalsev, Vallée (veterinarian products), Supermercados Big/Real (retail), Arby's (food service), Sanavita (functional foods), Boehringer (veterinarian products), Illycafé (coffee — Italian multinational), Fri-Ribe (animal food), Nestlé and Elanco (animal health). He was CEO of Inova Biofuels Holding Company in 2008–2009.

One of the most invited Brazilians to speak about marketing and strategy, Professor Fava Neves has delivered over 450 speeches in Brazil and spends around one week per month outside Brazil delivering more than 120 international lectures/speeches in 20 countries. He was the coordinator of MBA courses in Marketing and Agribusiness, since 2000 (classified by the *Você S/A* Magazine as the best in Brazil in 2003) and participated as Coordinator of Mercosur in the Global Food Network Project, to establish transnational chains with Mercosul/European Union, from European Union (2002–2005). He was appointed the Best Evaluated Professor by students of MBA and undergraduates during 2001–2005 and 2007. He was also appointed as Distinguished International Professor of the University of Buenos Aires (Argentina) since 2006, and wrote/presented two case studies at Harvard Agribusiness Seminar, in Boston, in 2009 and 2010. He has been International Adjunct Professor at Purdue University (USA) since 2013.

His writings focus on supplying methods for business. He has 60 articles published in international journals such as *Marketing Intelligence and Planning, Direct Marketing and International Journal, International Food and Agribusiness Management Review, Problems and Perspectives on Management, Journal of Business and Industrial Marketing, Journal of Chain and Network Science, Business Perspectives, Italian Food & Beverage Technology, Flussiges Obst* (German Fruit Processing Journal) and *Marketeer* (Portuguese Journal of Marketing) as well as in several international conference proceedings. He is the author/co-author and organizer of 35 books by 10 different publishers in Brazil, Argentina, USA, Uruguay, China, South Africa, Singapore, the Netherlands and the United Kingdom.

Professor Fava Neves was a member of the International Board of the World Agribusiness Association from 2003 to 2012. He is also a member of the Editorial Board of four journals and was a member of the Board of Holland Genetics, Coplana Cooperative, Renk Zanini, Information Service of Meat (SIC), Lactea Brasil and Embrapa. He served as Vice President of the Biofuels Group of International Food and Agribusiness Management Association (IAMA), Texas, from 2007 to 2010 and has participated in 100 international congresses and 80 congresses in Brazil.

His areas of interest in research, work and teaching are market-driven strategic planning of productive chains (he created the ChainPlan Method, which is recognized internationally); demand-driven strategic planning for company networks for companies; and agribusiness and case studies.

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People Who Make It Happen*

At the beginning of the academic year in 2011, I coordinated a workshop at the University of São Paulo, with five executives from different industries (food, housing development, franchisee, retail and bank) that had histories of success in the last years.

The objectives of this workshop were: (a) to raise important topics to be developed by researchers; (b) to seek feedback about their market perceptions; (c) to give insights about what they need and value in terms of characteristics of managers that "make it happen."

This last discussion gave important messages to our business administration students. The objective of this chapter is to bring my summary and personal opinion of the 10 most relevant points (topics) for professional development.

1. **Be Tuned**: Managers need to be linked to what is happening globally in terms of the macro-environment (politics, economics, socio-cultural and technology). They must read newspapers, watch media programs, pay attention and listen, travel and have a global view, with cultural sensitivity. Dennis McKnight, a friend from Canada, always tells me: "stay home, stay stupid."
2. **Be Simple**: Managers should learn to simplify things, be practical, search for basic and faster solutions and solve the problems given. They should work to permanently reduce the costs. It is said that costs are like nails: we should cut very day!
3. **Be Adaptive**: Consumers change, competitors change, solutions change. The capacity to adapt in a fast-changing environment is one of the most important characteristic of a human resource.
4. **Be Innovative**: Several students and managers will innovate and create their own businesses, solutions, differentiate and get away from the basic, finding their "blue ocean." To search for what is new; to create is a definitive point for leaving the common sense.

* First published on *China Daily* (March 29, 2011).

5. **Be an Investor**: We are facing a process of global competition, so we should never stop studying, progressing and learning. Accommodation is one of the worst characteristics of a human resource. It is our responsibility to invest and build a competent professional.
6. **Be Relatable**: A very important characteristic is the capacity to relate with others, to build teams, work in groups and share knowledge and solutions. Managers must respect the differences of each individual's characteristics, since they allow a broader view. Allocate people at their best positions. At the same time that we should motivate, be competitive, try to include and give value to people, improving their confidence.
7. **Be Broad**: Be prepared to give opinions, to respect different opinions, to have good arguments and to deliberate also why the opinions are different. A good training is to read editorials, opinion articles and learn always to see the facts with different lens, balancing the points and arguments and having control.
8. **Be a Dreamer**: Keep dreaming that the targets, results and wishes will be possible to achieve. Search for more, for excellence, wish more. People that do not dream tend also to accommodate.
9. **Be Disciplined and Result Driven**: A manager has to deliver results. Personal discipline is important, managing head, health and happiness. Develop a passion for planning and measurement of results. Be available whenever the company needs you.
10. **Be Communicative**: Managers should communicate well. Not in excess, trying to sell yourself, but not silent to what is being achieved. Equilibrium and elegance to share with the team the major achievements also helps.

In conclusion, the most undesirable characteristics for young managers listed by these CEOs were arrogance, boring style and personality, accommodative behavior and lack of ethics and character. Excessive selfishness and insincerity were also listed as characteristics to be avoided when hiring.

The message for those of us involved with education is that our universities must give a very dense theory based on business methods and models, but at the same time be strongly linked to markets, to "what is happening." Besides good technicians, we must also develop good personal traits in our students, such as the ones pointed here, in order to build a global citizen, who is attuned to social and environmental causes.

We must realize that we compete in a global arena, and business students from all parts of the world are competing for global jobs requiring a global positioning of our universities and courses.

This chapter can be used by students and professionals as a tool for individual planning. One idea is to ask yourself, or get opinions from your boss, your friends about how to improve in each of the 10 topics listed. Which actions (strategic projects) do I need to take in each of these 10 points? Then, "make it happen".

— Marcos Fava Neves —

BRICS and "The Future of Food Business"

While we tend to think in terms of hundreds of millions of deprived and stunted lives, the reality is that each starving child, each malnourished expectant mother, each person who does not have the energy to develop, learn or contribute is a horrible tragedy, and together these individual tragedies add up to an unacceptable loss to the human commonwealth. Simply stated hunger and undernutrition are among the most severe and least addressed challenges facing humanity today. Not only are they preventable, but success in addressing hunger and undernutrition is essential to meeting all the Millennium Development Goals.

There is scant evidence that traditional approaches to development and agriculture have been successful or are leading to the disruptive changes needed to address this challenge. On the contrary, in 2010, the President of the World Bank stated: "for the first time in history more than a billion people go to bed hungry each night".

In this context, through the implementation of reality relevant strategies supported by strong policies and powerful partnerships engaging governments, civil societies, science and businesses taken as whole, Brazil, Russia, India, China and South Africa have achieved dramatic results and offer new models to effectively address hunger and undernutrition focusing on qualitative and quantitative improvements in agriculture productivity and reduction in field to table loss while respecting the diverse realities, capabilities and needs of agri-business and the smallholder.

Building on success, Brazil, Russia, India, China and South Africa have set five commanding goals to guide and support their joint efforts for further improvements not only for the BRICS but for developing world: to create a basic information exchange system, to develop strategies to ensure access to food for the most vulnerable, to effectively address the impact of climate change on agriculture, to enhance technical cooperation and innovation and to promote investment and trade.

"*The Future of Food Business*" offers a systematic, pragmatic and exciting framework woven from state-of-the-art theory to help the reader grasp and build on the experience and the vision of the BRICS in order to encourage and support the development of new, powerful and revolutionary strategies that effectively, urgently and harmoniously meet the imperative needs of global society and its diverse communities.

Dr. Fred Dubbee

Professor Frederick Dubee teaches at the post-graduate lavel at the World Peace Academy, University of Basel, the University of Sydney and in China at Shanghai University, Anhui Sanliang University and is Professor at BGI (formerly Beijing Genomics Institute). He is a Fellow of the World Academy of Arts and Science and a Member of the Club of Rome and has authored numerous academic papers. He is the co-author of the book *Peace Business* and co-editor of *China the Way Forward*. He is Chairman of Cosmos International (Beijing)

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