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Entitled An Educational Analysis of Chinese Business Development Strategies by United States Agricultural Companies: A Delphi Study

For the degree of Doctor of Philosophy

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AN EDUCATIONAL ANALYSIS OF CHINESE BUSINESS DEVELOPMENT  
STRATEGIES BY UNITED STATES AGRICULTURAL COMPANIES: A DELPHI  
STUDY

A Dissertation

Submitted to the Faculty

of

Purdue University

by

Jiajiang Peng

In Partial Fulfillment of the

Requirements for the Degree

of

Doctor of Philosophy

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This dissertation is dedicated to my major professors, Dr. Roger Tormoehlen and Dr. Allen Talbert, who have led and supported me to a new area of career interest-agricultural education and extension. I am grateful for their time and personal attention they gave to me during my education at Purdue University.

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## PREFACE

This study was conducted to provide critical information on the development of a successful China business by U.S. agriculture companies. Particularly, this study generated key components critical to successful development of China business for U.S. agricultural companies and identified potential training topics that could be utilized by U.S. agricultural companies for implementation of employee training programs.

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## ABSTRACT

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A three-round Delphi study was conducted to identify key components and their importance in development of an effective U.S.-China business partnership by U.S. agricultural companies. Thirty-seven (37) panel members completed the first round survey with 34 of them completing the second and third round surveys. The panel members were U.S. agriculture business experts who understood the research topics, had international agriculture business experience, and were willing to share such experiences. Panel members were purposefully selected to represent the agricultural industry, government, and higher education sectors. In summary, the panel generated a total of 63 key components that U.S. agricultural companies should consider when entering the Chinese market. These key components were categorized into nine groups: ethics and trust; language and culture; Chinese markets; political and economic climate in China; product advantages and customer service; human resources and labor costs in China; networks and partnerships in China; Chinese business practices; and legal counsel and intellectual property in China. Of the 63 key components, approximately 32% reached a high consensus level, 65% reached a moderate consensus level, and 3% reached a low

consensus level. Also, all 63 key components were rated by the panel as at least moderately important. Approximately 22% of the 63 key components were considered essential, 65% were considered very important, and 13% were considered moderately important. The panel members were also asked to rate the importance of the training topics for U.S. agricultural companies wishing to enter the Chinese market. Of the nine training topics for which training was recommended for U.S. agricultural companies, the “product advantages and customer service” group reached high consensus level among the panel. The other eight training topics reached moderate consensus level. Also, of the nine training topics, the “ethics and trust” as well as the “Chinese markets” were both considered as essential by the panel for including into training programs that U.S. agricultural companies should consider when entering the Chinese market. The other seven training topics considered as very important were: language and culture, political and economic climate in China, product advantages and customer service, human resources and labor costs in China, networks and partnerships in China, Chinese business practices, and legal counsel and intellectual property in China.

## CHAPTER 1. INTRODUCTION

### 1.1. Introduction

The expansion of global business has been of significant recent interest in academia (Agarwal, 2002; Hunter, 2004; Meuschke & Gribbons, 2003; Smith & McCann, 2001; Wang, 2000). By directing attention toward understanding the world from different cultural orientations, cross-cultural engagement provides a means of helping business leaders and educators better appreciate the existence and value of multiple worldviews (Hassel, 2004, 2005). This multicultural view plays a significant role in assisting international economic and technology development. It is a great obligation to address the needs for new paradigms in education that will respond to transforming economic, social, and cultural changes (Smith & McCann, 2001). Educational systems must be attuned to the specific ways in which globalization impacts local conditions and they must be capable of, as well as committed to, creative innovation. Global education should commit to foster educational change and business development that will help build local and international communities and businesses where conflicts can be resolved peacefully, diversity can be enriched, and development can be equitable and sustainable. Specifically, the mission of responding to issues significant to the health of the U.S.-China agricultural business climate begin with an

analysis of the situations experienced by business organizations and the development a training model that would enhance the health of U.S.-China business.

China is one of the largest agricultural countries in the world. With the largest population in the world and its demand for food, China's need for grain and animal protein-based products is significant. Increasing and sustaining agricultural productivity is of special importance for China. However, in some aspects, China's agricultural technology, general management, and marketing systems are still underdeveloped, which has resulted in serious negative consequences (e.g. food safety, price crisis, and environment issues) and is threatening China's future agricultural development (U.S. & Foreign Commercial Service and U.S. Department of State, 2006). To develop a sustainable agriculture production system, China requires significant enhancements in agricultural technology, general management, and marketing systems. In contrast, the U.S. agriculture industry has a more mature production and marketing system compared to China. In general, the U.S. agriculture industry is a world leader in agricultural technology and management, while providing consumers with environmentally friendly production systems and a supply of healthy food under the guidelines of the U.S. Department of Agriculture (USDA) and U.S. Food and Drug Administration (FDA). Enhancing agricultural collaborations between the U.S. and China can create long-term beneficial business opportunities for agricultural industries in both countries. Therefore, increasing and sustaining agricultural productivity in China provides an opportunity for U.S. investors.

With the world's largest consumer base, China has become a very attractive market for foreign investors. It is well known that strong business partnerships have been developed between the U.S. and China. With the largest population in the world, China has grown into the second largest consumer market of goods (Hitt et al., 2002). China is the fastest growing foreign market for U.S. goods, with the increase of U.S. general exports to China averaging well over 20% in the past several years and topping 30% in 2006 (U.S. & Foreign Commercial Service and U.S. Department of State, 2006). As China's economy grows, the potential for expanding the trade of U.S. agricultural products to China will grow.

### 1.2. Statement of Problem

With the creation of a world economy, especially through increasing membership in the World Trade Organization (WTO), more and more U.S. agriculture companies are seeking to develop international markets, especially in China (Agarwal, 2002). A survey of business people in Santa Clarita Valley, California, found that 63% of the participants were interested in expanding their product or service into China and 65% of the participants desired to learn how to do business in China (Meuschke & Gribbons, 2003). However, in the same survey, 45% of the business people indicated they had no previous business experience in China. Additionally, a survey of agriculture companies in the Midwestern area of the United States found that 64% of those companies did not have a current business relationship with China (Agarwal, 2002). Without previous experience in China, most foreign investors know very little about conducting business in China and

even less about the way in which its unique business culture and authoritarian government would control their success (U.S. & Foreign Commercial Service and U.S. Department of State, 2006; Wong & Maher, 1997). Therefore, there is a tremendous need to inform U.S. agriculture companies with no previous and current business experience in China about the key components associated with doing business in China. However, limited information or experience on agricultural business development in China is available. Therefore, the study objectives were to identify key components and their importance in development of an effective U.S.-China business partnership by U.S. agricultural companies. Particularly, the key components identified could be included in an educational training program targeted at U.S. agricultural companies wishing to conduct business in China.

### 1.3. Project Rationale

Internationally, economic development is more and more “globalized.” The most significant challenges facing educators in the next decade is to understand collaboration in this complex and dynamic international business network and to put it into successful practice. With the tremendous growth in China’s economy, more and more U.S. agricultural businesses are exploring the Chinese market. A company must first conduct a detailed investigation in a number of areas to enable it to make an informed decision on how to build a Chinese business partnership (Ho, 2007). Some important factors to consider are differences in language, culture, and business practice between the U.S. and China (Agarwal, 2002; Meuschke & Gribbons, 2003). Chinese political and social

structures along with the economic policies are also fundamental challenges when considering a China business development strategy. Moreover, preparing qualified international employees has always been a major challenge but is very beneficial to international business development (Agarwal, 2002; Cui, 1998; Graham & Lam, 2003). Specifically, in order to ensure good communication within an international business partnership, a qualified international employee has to be able to handle the tremendous differences in language and culture. In general, issues related to language, culture, business practices, and employee qualifications have an effect on business development in China by U.S. agricultural companies. However, the importance and value of these issues has not yet been identified by business leaders and educators.

There are many companies interested in pursuing a training program on “doing business with China” (Meuschke & Gribbons, 2003). In order to be prepared to better-fit future agriculture development, it is critical that U.S. agriculture educators and business leaders be familiar with the current key components of doing business in China. By identifying the key components that are necessary for the development of a successful China business by U.S. agriculture companies, agriculture educators and business leaders can better assist in that process. Particularly, the key components of a training program targeted at U.S. agricultural companies wishing to do business in China have yet to be clearly identified. Those training components must be identified before an educational program targeted at U.S. companies wishing to do business in China can be developed and implemented.

This study utilized the Delphi technique described by Linstone and Turoff (1975). The Delphi method has been widely used in curriculum design and business strategies

evaluation (Linstone & Turoff, 1975; Olshfski & Joseph, 1991; Wang, 2000). Linstone and Turoff (1975) stated that one or more of the following properties of the application determines the appropriateness of using the Delphi method:

- 1) The problem does not lend itself to precise analytical techniques but can benefit from subjective judgments on a collective basis;
- 2) The individuals needed to contribute to the examination of a broad or complex problem have no history of adequate communication and may represent diverse backgrounds with respect to experience or expertise;
- 3) More individuals are needed than can effectively interact in a face-to-face exchange;
- 4) Time and cost make frequent group meetings infeasible;
- 5) The efficiency of face-to-face meetings can be increased by a supplemental group communication process;
- 6) Disagreements among individuals are so severe or politically unpalatable that the communication process must be refereed and/or anonymity assured;
- 7) The heterogeneity of the participants must be preserved to assure validity of the results, i.e., avoidance of domination by quantity or by strength of personality (p.4).

This study meets these criteria except item number six where severe disagreements or politically unpleasant situations do not exist. Specifically, the Delphi technique is well suited to the current research project. First, the environment of no face-



to-face meetings and anonymity stimulates creativity and reflection while avoiding conflicts of personality and forcing opinions on the group by virtue of position or status. Second, the current research questions to be posed can benefit from subjective judgments on a collective basis. This will be done in an attempt to arrive at a consensus conclusion. Third, since the panel, who are experts in the field of international business development, are widely scattered geographically, the Delphi method would allow for inputs from highly qualified experts without the need for traveling and physically coming together. A minimal commitment of time on the part of these experts is also guaranteed. Fourth, business development strategies among individual companies are considered as highly confidential so the communication process must be anonymous. Finally, the Delphi panel members would be motivated by the assurance that the results of the current research will be shared with their business and professional colleagues.

#### 1.4. Research Goals

- 1) Identify key components for development of an effective China business by U.S. agriculture companies;
- 2) Evaluate and validate the importance of key components for development of an effective China business by U.S. agriculture companies;
- 3) Identify training topics required for development of an effective China business by U.S. agriculture companies;
- 4) Evaluate and validate the importance of training topics for development of an effective China business by U.S. agriculture companies.

### 1.5. Objectives

To answer the research questions noted above, the following nine objectives have been identified:

- 1) Conduct a review of current literature in the following areas: a familiarity with Chinese language and culture, knowledge about Chinese business practice, establishing good networks in China, conducting effective communication across culture, building mutual trust across culture, hiring appropriate employees for a China business;
- 2) Identify the agriculture companies and secure a commitment from a key individual with each company;
- 3) Develop and validate the first round research instrument of the Delphi study;
- 4) Conduct the first round survey to generate the key components and identify training topics for development of an effective China business by U.S. agriculture companies;
- 5) Develop and validate the second round research instrument of the Delphi study;
- 6) Conduct the second round survey to evaluate the key components generated in the first round survey;
- 7) Develop and validate the third round research instrument of the Delphi study;
- 8) Conduct the third round survey of the Delphi study to re-evaluate the key components generated in the first round survey and evaluate the training

topics for development of an effective China business by U.S. agriculture companies;

- 9) Analyze and summarize the data and make recommendations.

### 1.6. Significance of the Study

This study was carried out to generate the key components critical to successful development of a China business/market for U.S agricultural companies. Furthermore, this study identifies potential training components that could be utilized by U.S. agricultural companies for implementation of successful China business/market development.

There is growing business collaboration between the U.S. and China as a result of intensifying global economic integration. Therefore, utilizing the key components generated in this study to educate company staff to be internationally competent could be beneficial to companies wishing to conduct business in China. Furthermore, there is also a growing educational collaboration between the U.S. and China. Some of the key components generated in this study may also have applications in developing educational collaborations between the U.S. and China. Consequently, the findings of this study may provide agricultural industries and other organizations with evidence to strategically develop educational curriculum and materials that could prepare and strengthen their development opportunities in China.

### 1.7. Limitations of the Study

Besides U.S. agricultural companies, the results of this study may have implications for agricultural companies from other countries wishing to do business in China. However, the findings may have limitations in those agricultural companies from countries that have different language and cultural settings than the U.S. and China.

Another limitation of this study is the particular language and cultural setting in China and therefore the results of this study may only have application in China.

Lastly, this study, in general, is in the agricultural context. Because of the unique characteristics of the agricultural industry, caution must be exercised when generalizing the study's findings to other industries.

### 1.8. Terms and Definitions

For the purpose of the study, the following terms and acronyms were defined:

**Culture:** the integrated pattern of human knowledge, belief, and behavior that depends upon the capacity for learning and transmitting knowledge to succeeding generations; the customary beliefs, social forms, and material traits of a racial, religious, or social group; the set of shared attitudes, values, goals, and practices that characterizes an institution or organization (<http://www.merriam-webster.com/>).

**Ethic/ethics:** the discipline dealing with what is good and bad and with moral duty and obligation; a set of moral principles - a theory or system of moral values; the principles of conduct governing an individual or a group (<http://www.merriam-webster.com/>).

**FAO:** Food and Agricultural Organization of the United Nations; one of the leading agencies for agriculture, forestry, fisheries, and rural development (FAO, 2008).

***Guan-xi:*** describes the basic dynamic in the complex nature of personalized networks of influence and social relationships, and is a central concept in Chinese society.

*Guan-xi* (interpersonal relationship) is one of the major dynamics of Chinese society. It has been a pervasive part of the Chinese business world for the last few centuries. It binds literally millions of Chinese firms into a social and business web. It is widely recognized to be a key determinant of business performance, because the life-blood of the macro economy and micro business conducted in the society is the *Guan-xi* network. Any business in this society, including local firms as well as foreign investors and marketers, inevitably faces *Guan-xi* dynamics. No company can go far unless it has extensive *Guan-xi* in this setting. In China's new, fast-paced business environment, *Guan-xi* has been more entrenched than ever, heavily influencing Chinese social behavior and business practice (Davies et al. 1995; Fan, 2002b; Leung & Wang, 2001).

**Hong Kong:** officially the **Hong Kong Special Administrative Region**, is a largely self-governing territory of the People's Republic of China, facing Guangdong to the north and the South China Sea to the east, west and south. Hong Kong is a global metropolitan and international financial centre, and has a highly developed capitalist economy. Under the policy of "one country, two systems," mainland China is responsible for the territory's defense and foreign affairs, while Hong Kong maintains its own legal system, police force, monetary system, customs policy, immigration policy, and delegates to international organizations and events. Hong Kong is also a society with strong traditional Chinese culture and Confucianism beliefs (Liu, 1996; Zhang, 2001).

**Macau/Macao:** officially the **Macau Special Administrative Region**, is one of the two special administrative regions of the People's Republic of China, the other being Hong Kong. Macau lies on the western side of the Pearl River Delta, bordering Guangdong province in the north and facing the South China Sea in the east and south. The territory has thriving industries such as textiles, electronics and toys, and a notable tourist industry. Under the policy of "one country, two systems," mainland China is responsible for the territory's defense and foreign affairs, while Macau maintains its own legal system, police force, monetary system, customs policy, immigration policy, and delegates to international organizations and events. Macau Kong is also a society with strong traditional Chinese culture and Confucianism beliefs (Zhang, 2001).

**Multinational Corporation (MNC):** is a corporation or enterprise that manages production or delivers services in more than one country (Sun, 1995).

**People's Republic of China:** People's Republic of China refers to the mainland China. China is the largest country in East Asia and the most populous in the world with over 1.3 billion people, approximately a fifth of the world's population. Its ancient civilization traditionally dates to 2700 B.C. It is a socialist republic ruled by the Communist Party of China under a single-party system and has jurisdiction over twenty-two provinces, five autonomous regions, four municipalities, and two largely self-governing Special Administrative Regions. China is a society with strong traditional Chinese culture and Confucianism beliefs. China's capital is Beijing. China in this dissertation refers to mainland China (Zhang, 2001).

**Taiwan:** Taiwan is an island group located in East Asia between the South China Sea and the East China Sea off the southeastern coast of mainland China. Taiwan is separated from mainland China by the 180-kilometre-wide Taiwan Strait. Taiwan has been separated politically from mainland China since 1949. According to the United Nations, Taiwan is not recognized as an official independent country and

is claimed as a part of the People's Republic of China. Both Taiwan and mainland China are developing closer relationship with each other since 2008. Taiwan is also a society with strong traditional Chinese culture and Confucianism beliefs (Zhang, 2001).

**The World Trade Organization (WTO):** is the only global international organization dealing with the rules of trade between nations. At its heart are the WTO agreements, negotiated and signed by the bulk of the world's trading nations and ratified in their parliaments. The goal is to help producers of goods and services, exporters, and importers conduct their business. The WTO is an international agency which encourages trade between member nations, administers global trade agreements and resolves disputes when they arise (WTO, 2008).

## CHAPTER 2. LITERATURE REVIEW

This chapter presents a review of research and literature focusing on the following five sections: global economics, issues of U.S. business development in China, background of the U.S. and Chinese agriculture, internationalization of the U.S. and Chinese agriculture, and business partnership development between the U.S. and China. These five sections consistently provide a strong rationale for this research study.

The first section of this literature review describes the recent development of international business, which is widely recognized as an important driver of economic development in every country. Specific topics in this section include business globalization, needs of international business, World Trade Organization, and business opportunities in China.

The second section of this literature review explains the issues that have effect on doing businesses in other countries. Doing business in other countries is heavily influenced by issues such as cultural, linguistic, political, legal, and economic environment of each host country where a firm does business. Specific topics in this section include sociocultural distance between host and home country, country risk of host countries, economic conditions and policies of host country, human resources, communication and negotiation across cultures, and cross-culture training of business professionals for international business development.



The third section of this literature review describes the background of the U.S. and Chinese agriculture. The U.S. is one of the leaders of the world in agricultural production which utilizes many advanced technologies. Relying on science and technology to promote the revitalization of its agriculture and rural economy, China is seeking many ways to increase agricultural technology collaboration and technology exchanges with many developed countries, especially the U.S. Specific topics in this section include agriculture in the U.S. and agriculture in China.

The fourth section of this literature review outlines the current situations on internationalization of both the U.S. and Chinese agriculture. The U.S. is the world's leading agricultural trader while China is one of the big net agricultural importer countries. Specific topics in this section include internationalization of the U.S. agriculture, internationalization of the Chinese agriculture, and agricultural trade in the U.S. and China.

The final section of this literature review describes the examples, activities, and strategies of U.S.-China business partnership development. There are many non-agricultural and agricultural companies that have recognized the differences between the U.S. and China in the development of successful market. Specific topics in this section include market development examples and market development activities and strategies.

The review of literature is organized as the follows:

- 1) Introduction
- 2) Literature search methodology
- 3) Global economies

- a. Business globalization
  - b. Needs of international business
  - c. The World Trade Organization
  - d. Business opportunities in China
- 4) Issues of U.S. business development in China
- a. Chinese culture and language and their influences on business practice
  - b. *Guan-xi*, personal connections or relationships in China
  - c. Social status and social face (*Mian-zi*) in China
  - d. Business communication and negotiation across cultures
  - e. Human resources
  - f. Country risk of host countries
  - g. Economic conditions and policies of China
  - h. Training of business professionals
- 5) Background of the U.S. and Chinese agriculture
- a. Agriculture in the U.S.
  - b. Agriculture in China
- 6) Agriculture internationalization in the U.S. and China
- a. Internationalization of the U.S. agriculture
  - b. Internationalization of the Chinese agriculture
  - c. Agricultural trade in the U.S. and China
- 7) U.S.-China business partnership development
- a. Market development examples
  - b. Market development activities and strategies
- 8) Summary

## 2.1. Introduction

The economic boom and liberalization make China a new focus of international investments by Multinational Corporations throughout the world. With the world's largest consumer base, China has become a very attractive market for foreign investors. However, most foreign investors know very little about doing business in China and even less about the way in which its unique culture and authoritarian government would control their success (U.S. & Foreign Commercial Service and U.S. Department of State, 2006; Wong & Maher, 1997). As some international investors succeeded and others failed in China, the literature mushroomed and focused primarily on cultural issues as well as Chinese business management styles and their influences on international business development of Multinational Corporations. The mission of responding to issues significant to the health of the U.S. and China business community is to analyze the situations that organizations and individuals experienced and to assist the business collaboration and development.

## 2.2. Literature Search Methodology

In order to make sure I was following a good track for a thorough literature search of my research topic, I consulted three librarians from each of the three libraries on Purdue University campus: Humanities, Social Science & Education Library (education), Life Science Library (agriculture), and Management and Economics (business). With the advice from the specialists of different areas, I identified ERIC, AGRICOLA, CAB

Abstract, and ABI/ INFORM Global as the most appropriate databases for my research project.

I started the database search within ERIC for ‘educational efforts to assist business in international market development’. I was also aware that I could use other keyword or phrase that has a similar meaning to above. ERIC provides a comprehensive Internet-based bibliographic and full-text database of education research and information. Since the database in ERIC is focused on education, including all kinds of segment/ level in the current teaching system, I focused on the following search terms: curriculum development, training, workshop, education approach, international, and market development. I also included the ‘business culture’ and ‘language’ in the ERIC’s searches.

I followed similar search logic for the other databases, with emphasis on the agriculture education and agriculture economic for AGRICOLA and CAB Abstract as well as the economic development for ABI/ INFORM Global. Since each search database has a different style, I did not limit my search terms to be the same words. Knowing that both the AGRICOLA and CAB Abstract database contained more information related to agriculture economic and international agriculture, I tried the similar terms and search strategies from the ERIC’s search. However, the focus was ‘economic/market development’ in these two database search.

After consulting with the librarians from Management and Economics library, I identified that the ABI/INFORM Global database was my basic starting search. This database has the most general information related to international business. Basically, I

searched the following terms: international trade/international business, education/training, and development/economic.

A literature database search takes a lot of patience and creativity. Sometimes, the search results include a huge amount of material. It is impossible to sort through this information. Thus, it is important to refine the search terms constantly at the beginning of a search. When the search results show too many results on a search term, I usually choose to look at the first ten items of the search results to get an idea as to whether those search results make sense to me or not.

For the above mentioned searches, I limited the results by journal articles, peer reviewed, language, full text, year of publication, and books. I also used the 'map terms' function which asked the database system to provide similar search terms automatically. I also used the 'find similar' function for any similar specific article, author, or topic.

Overall, the matched reference data were directly exported to the EndNote for future use. Especially, I appreciated the work with the EndNote for handling my references. In the end, I kept a summary of the type of publications (book, journal, report/document, etc.), publication date ranges, and the numbers of literature from the searched database.

## 2.3. Global Economies

### 2.3.1. Business Globalization

International business is part of globalization. International business is a major economic force for any country that is considered to be a world business power. International business promotes exchanging of goods, services, and cutting-edge technologies across international boundaries. Without international business activities, countries would be limited to the goods and services produced within their own borders.

International business is widely recognized as an important driver of economic development in every country. Specifically, international business is associated with new product introduction, innovation and technology cultivation, and world economy growth. There are other benefits of international business which include increasing opportunity of employment and jobs, and reducing world poverty and hunger (Jain, 2001; FAO, 2008).

A growing international business is demonstrated by the overall world international trade capacity. The world total export and import volume is expanding rapidly in the 21<sup>st</sup> century. The exports and imports amount of goods from selected regions in the world during 2001-2007 is listed in Table 2.1.

Table 2.1

*Exports and Imports of Goods from Selected Regions in the World (in billion of U.S. dollars)*

	2001	2002	2003	2004	2005	2006	2007
<b>Exports</b>							
<i>North America</i>	991	950	997	1,123	1,266	1,445	1,642
<i>East Asia</i>	1,135	1,245	1,479	1,862	2,194	2,611	3,061
<i>World</i>	6,146	6,443	7,490	9,082	10,396	12,061	14,081
<b>Imports</b>							
<i>North America</i>	1,395	1,417	1,529	1,779	2,034	2,252	2,410
<i>East Asia</i>	1,033	1,125	1,343	1,716	1,983	2,287	2,648
<i>World</i>	6,298	6,528	7,593	9,268	10,550	12,167	14,137

Note: Source from the United Nations, Global Economic Outlook Data, 2008.

### 2.3.2. Needs of International Business

There are numerous reasons that countries should engage in international business. For instance, some countries are deficient in critical raw materials and natural resources, such as lumber, rubber, and oil. On the other hand, some other countries are in hunger struggles because of a lack of agricultural technology and food. To solve these problems, countries must engage in international business to obtain the resources or technology necessary to produce the goods and food desired by their citizens. For

example, Japan, Germany, and the U.S. have highly developed industrial bases that can produce high-quality transportation tools, heavy construction equipment, and other industrial machinery for export around the world. Especially, the U.S. is one of the leading exporters of agricultural products such as corn, wheat, soybeans, and their by-products because of its large tracts of farming land. In contrast, due to its large population and increasing consumption in agricultural products, China normally purchases crops and their by-products from outside countries including the U.S., Brazil, and Argentina. Additionally, China has a relatively low labor costs and relatively modern production facilities that can produce many labor-intensive commodities, such as clothing and other consumer goods (The Chinese State Council, 2001).

However, there are many obstacles related to international business. Some of these obstacles are intentional tariffs and trade barriers that are erected by individual government and others are unintended consequences related to the human and physical infrastructure in each country (Lawrence et al., 2008). For countries to be able to fully engage in international business, the obstacles mentioned above must be removed.

### 2.3.3. The World Trade Organization

The World Trade Organization (WTO) demonstrates the blooming of international business around the world. The WTO has a membership of 153 countries as of 23 July, 2008. The goal of the WTO is to liberalize trade and provide member governments a vehicle to sort out the trade problems they face with each other. The WTO came into existence in 1995. Being one of the most important international,



multilateral organizations, the WTO is the successor to the General Agreement on Tariffs and Trade (GATT), which was established in 1947. The WTO sets the rules for the global trading system and resolves the disputes between its members. The WTO contains a list of about 60 agreements, annexes, decisions and understandings. The WTO and its agreements cover trade in goods, services, and intellectual property (World Trade Organization, 2008).

The key principle of the WTO is that it protects trade environments with no discrimination and provides countries with improved access to markets (Steinberg, 2002). The aim of the WTO is to increase international trade by promoting lower trade barriers and providing a platform for the negotiation of trade and business relationships. Meanwhile, it provides the principal contractual obligations, which determine how governments frame and implement domestic trade legislation and regulations.

Under the chairmanship of Ambassador Pierre-Louis Girard of Switzerland, the WTO Working Party concluded almost 15 years of negotiations with China and agreed to the formal acceptance by the 142 Member Governments of the WTO in 2001 (World Trade Organization, 2008). China has been a member of the WTO since 11 December, 2001. With China's membership, the WTO has taken a major step towards becoming a truly world organization (World Trade Organization, 2008). In many respects, WTO membership is China's best option for sustaining the pace of economic growth and reform. As the world economy has become vastly more complex and interconnected, China's participation in the WTO has become much more critical for China's economy, as well as for the world economy. As a WTO member, China will be able to participate in the formulation of rules that govern international trade and

investment. Similarly, China will be able to defend its trade interests using the WTO dispute-settlement system. Chinese exporters will benefit from the certainty that their trading partners must obey the WTO rules. This means, for instance, that WTO members will not be able to discriminate against Chinese products in their home markets.

International economic cooperation has brought about this defining moment in the history of the multilateral trading system since the birth of the WTO. The near-universal acceptance of its rules-based system will serve a pivotal role in underpinning global economic cooperation (World Trade Organization, 2008).

#### 2.3.4. Business Opportunities in China

Slightly smaller than the United States in geographic size, China is home to one of the fastest-growing economies. China has become the third-largest economy in the world (CNN News, 2009). Moreover, China has quickly become an important trading power. In 2007, China was the second largest exporter with a value of \$1217.8 billion and third largest importer with a value of \$956.0 billion of merchandise trade (World Trade Organization, 2008). The export amount has almost increased four times and the import amount has almost increased to three times from 2001 to 2007 in China.

Meanwhile, China is the third-largest overall trading power in the world, only behind the European Union and the U.S. China's explosive economic expansion over the past 30 years is well known. Fueled by vigorous reform efforts, China has created a vast array of new job and investment opportunities. With a stock value of direct foreign investment of

\$758.9 billion at home in 2007, China has become one of the largest recipients of direct foreign investment in the world (The World Factbook, 2008).

The effect of China's transformation from an inward-looking, planned economy to a more market-oriented, trading powerhouse has reverberated throughout the global economy, influencing everything from consumer choice to investment flows (Chen, 2001; Jain, 2001). WTO membership makes China even more attractive to foreign investors. China's WTO commitments will facilitate increased competition in every sector of the economy.

As the world's largest developing country with the reality of underdeveloped productivity, China plans steadfastly stick to the path of long-term peaceful development to build a stable and harmonious society (Chen, 2001). China will seek more opportunities to deepen reforms, expand the opening-up, and focus on its economic development (Jain, 2001). China will increase agricultural technology collaborations and technology exchanges with other countries (The Chinese State Council, 2001).

#### 2.4. Issues of U.S. Business Development in China

Doing business in other countries is heavily influenced by issues such as culture, language, as well as political, legal, and economic environments of each host country where a firm does business. Those issues may affect the business partnership development in a foreign country. To evaluate and understand specific challenges are the first steps of developing a business in a foreign country. These are the issues that will be addressed in the following.

## 2.4.1. Chinese Culture and Language and Their Influences on Business Practice

### 2.4.1.1. Chinese Culture and Language

Culture is the traditions and customs that govern behavior and beliefs of a person (Kottak & Kozaitis, 1999). Culture forms the set of shared attitudes, values, goals, and practices that characterizes an institution, organization, or group. Chinese culture and its morality have thousands of years' history and are firmly based on the writings and inspiration of Confucius and Taoism (Alon & Shenkar, 2003; Graham & Lam, 2003; Han, 1999; Sheng, 1979).

Both Confucius and Taoism have shaped the Chinese heritage (Han, 1999). The Chinese consider themselves as living in a friendly, peaceful, and harmonic society. There is a popular saying in China, "friendship first, competition second." And the friendly, peaceful, and harmonic society has helped the Chinese economic growth and its international business development as evidenced in the most recent three decades since the reforming and the recent "Open Door" policy of China in 1979 (Alon & Shenkar, 2003; Chen, 2001; Graham & Lam, 2003; Jain, 2001; Sheng, 1979).

Chinese language has a long history and evolution. Although the entire Chinese written language character set comprise well over 20,000 characters, there are more than 10,000 Chinese characters now commonly in use (Han, 1999; Zhang, 2001). However Chinese characters should not be confused with Chinese words, there are many times more Chinese words than there are characters because most Chinese words are made up of two or more different characters. In Chinese, the words are pictures rather than sequences of letters (Han, 1999). Since the Chinese economic and political rise in recent

years, Chinese language has become an increasingly popular subject of study in the Western world (Committee for Economic Development, 2006). In the U.S., there is a Chinese language learning systems formed based on a partnership between the Ministry of Education of the People's Republic of China and the United States Department of Education (Committee for Economic Development, 2006). To build a strong Chinese language learning program in the U.S. is specifically needed for a growing global economy. As the Committee for Economic Development (2006) warned that the United States will become less competitive in the global economy because of a shortage of strong foreign language and international studies programs.

#### 2.4.1.2. Sociocultural Distance among Countries

Sociocultural distance refers to the difference in social culture among countries or districts (Anderson & Gaignon, 1986). Sociocultural distance has received a great deal of attention in international business activity. Sociocultural distance has a strong effect on Multinational Corporation's (MNC) performance in international business development (Anderson & Gaignon, 1986). Sociocultural distance may cause MNC to do business in an unfamiliar cultural environment. An unfamiliar cultural environment includes dealing with differences in languages, values, and beliefs. Conducting business in another language can be a potential source of misunderstanding for companies from foreign countries during business negotiations.

Because of unfamiliarity with local cultural environment, local market, and business practice, the MNCs could find it difficult to transfer home technologies and

management techniques to an unknown operating environment (Sun, 1995). This disadvantage may be avoided by forming joint venture partnerships with local firms and turning management partially over to local partners (Sun, 1995).

Because of historic reasons, sociocultural links between China and other countries or districts are highly related to geographical adjacency. Countries or districts which are adjacent geographically to China have close cultural ties with China. Based on sociocultural distance and geographic adjacency, foreign investors in China can be classified into the following three groups.

The first group is the investors from Hong Kong, Macao, and Taiwan. Most of these are Chinese and share the same culture with people in mainland China. These Chinese investors have advantages in language, cultural traits, ethnic links, and access to the Chinese society. Therefore, these advantages may allow investors in this group to be less dependent on local firms for local management and market information. Wholly foreign-owned enterprise becomes a more important entry mode for this group although joint venture partnerships with local firms are not excluded (Sun, 1995).

The second group is investors from other East Asian countries including Japan, Singapore, Malaysia, Thailand, and South Korea. Investors from these East Asian countries possess some advantages in sociocultural linkages. Although not having language advantages, these Asian neighboring countries have close cultural ties with China due to geographic proximity and historical links. As a result, the entry modes of these investors would be similar to that of the first group (Sun, 1995).

The third group is the investors from all other countries in the world including those from the northern America and Europe. In contrast to the first and second groups,

these investors have no advantages in language, cultural traits, and ethnic links, or in access to the Chinese society. These disadvantages may require them to enter into the Chinese domestic market with more reliance on local resources. Therefore, investors in this group are expected to be more dependent on local firms for local management and market information by choosing joint ventures with local Chinese firms. However, there are MNC from this group who prefer wholly foreign-owned enterprise in order to directly impose their own operating methods (Sun, 1995).

#### 2.4.1.3. Influences of Chinese Culture and Language on Business Practice in China

Chinese culture and language plays an increasing role in international trade (Guo, 2004, 2006, 2007). Not knowing and understanding the Chinese culture and language can be a potential source of miscommunication for companies from Western countries during business negotiations (Agarwal, 2002). Being unfamiliar with Chinese language is an important factor that inhibits U.S. companies' desire to do business in China (Agarwal, 2002; Guo, 2004, 2006, 2007; Meuschke & Gribbons, 2003). This is because language is a tool of communication. Guo (2004) stated that cultural influences (e.g. linguistic influence) on international trade between the U.S. and China have become greater since the 1980s and that cultural influence on foreign trade is more significant in China than in the U.S.

Graham and Lam (2003) stated that the basic cultural values and ways of thinking are different between the U.S. and Chinese business people. As international business experts, Graham and Lam stated that the Chinese people are collectivists and have a

hierarchical and relationship oriented culture versus the American people who are individualists and have an egalitarian and information oriented culture.

Sheng (1979) characterized the Chinese culture as humanistic. The humanism philosophy emphasizes that the Chinese people believe human life lies in the correct orientation of the interpersonal relationships: the relationship of husband and wife, parent and child, friend and friend, student and teacher, self and the community, people and the sovereign power. With the Chinese culture, the interpersonal relationship must be genuine, mutually beneficial, friendly, and trustworthy. An implication of the Chinese humanism for business is clearly stated by Sheng (1979):

Another implication of Chinese humanism for trade is that unlike the West, where the legalistic concept of the business contract is generalized as the master concept to subsume many other interpersonal relationship, in China the business relationship is always subsumed under the moralistic notion of friendship. This is not to say that China did not have specifically business practices or business law, but the normal operative concept is not one of contracts and liabilities, etc., but of friendship, loyalty and trustworthiness. Under one paradigm one looks at the explicit contract under the letter, under the other, one pays close scrutiny to the character of one's business partner. (p. 20)

An unfamiliar business culture can be a potential source of misunderstanding for companies from Western countries, especially during business negotiations. Because of



the lack of knowledge about business cultural differences, the U.S. companies lost business deals with the Chinese partners on many occasions (Graham & Lam, 2003).

However, Chinese culture is complex to foreigners. Culture and language were considered as barriers for U.S. firms doing business in China (Agarwal, 2002; Meuschke & Gribbons, 2003). Therefore, those who know how to navigate these culture differences between the U.S. and China can develop successful business relationships and gain mutual benefit (Chen, 2001; Graham & Lam, 2003; Li, 1995; Zhao, 2000).

Graham and Lam (2003) provided details of how cultural context and ways of thinking can affect the business negotiation process between U.S. and China. The researchers' work with dozens of companies and thousands of U.S. and Chinese executives over the past 20 years concluded that business negotiation approaches of the U.S. and Chinese often appear incompatible because of deep cultural origins which lead to different perceptions. The U.S. perceived Chinese negotiators as inefficient, indirect, and even dishonest, while the Chinese perceived the U.S. negotiators as aggressive, impersonal, and excitable. March (1980) also stated that being capable of learning about an unfamiliar culture will be beneficial to international business development for a multinational company.

Culture shock causes disturbed feelings that often arise when one has contact with an unfamiliar culture (Alon & Shenkar, 2003). Mutual understanding of other cultures and their origins can help develop satisfying business relationships. Therefore, global education should commit to building international communities where diversity can be enriched and economic development can be equitable and sustainable. Again, as warned by the Committee for Economic Development (2006) that the United States may be the

world's only military superpower but in business it cannot always insist on its way of doing things if it want to do business with the rest of the world.

According to the Fulbright–Hays Act of 1961, dealing with mutual educational and cultural exchange, people of the U.S. and people of other countries should collaborate to “...promote international cooperation for educational and cultural advancement; and thus to assist in the development of friendly, sympathetic, and peaceful relations between the United States and the other countries of the world ...” (U.S. Code, 1961). Overall, in the Chinese business culture, researchers agreed that relationships, trust, and harmony are more important to Chinese business people than any piece of legal paperwork (Alon & Shenkar, 2003; Chen, 2001; Graham & Lam, 2003; Sheng, 1979; Zhao, 2000).

#### 2.4.2. *Guan-Xi*, Personal Connections or Relationships in China

In the Chinese culture, personal connections or relationships are important elements for U.S. business people to be aware of and adopt in order to have a successful business in China (Alon & Shenkar, 2003; Davies et al., 1995; Graham & Lam, 2003; Hwang et al., 2008; Lovett et al., 1999; Lu et al., 2009). As Sheng (1979) mentioned, it is the Chinese humanistic culture that emphasizes the correct orientation of the interpersonal relationships in the Chinese culture. The interpersonal relationships are called *Guan-xi* (pronounced guan-shee) and are very popular and important in China.

China is a hierarchical *Guan-xi*-based society despite the rapid transition to a market-led economy (Davies et al., 1995; Fan, 2007; Leung & Wong, 2001). In China,

*Guan-xi* are personal relationships or connections among family members, people from the same home town, school and military alumnus, people having teacher-student relationship, people in the same profession, and people in the same government office (Alon & Shenkar, 2003; Fan, 2002b; Graham & Lam, 2003; Lovett et al., 1999; Su & Littlefield, 2001). *Guan-xi* emphasizes good faith rather than commercial law to safeguard obligations. Another researcher defined *Guan-xi* as a process:

*Guan-xi* is the process of social interactions that initially involve two individuals (A and B). A may or may not have special relationships with B. A asks B for assistance (favor) in finding a solution to a problem. B may have the solution at hand, or more often, has to seek further assistance from other connections, i.e. starts another process (Fan, 2002b, p. 549).

*Guan-xi* has been identified as the most important key cultural factor which affects doing business in China (Abramson & Ai, 1999; Davies et al., 1995; Fan, 2002b; Graham & Lam, 2003; Lovett et al., 1999; Sheng, 1979; Yeung & Tung, 1996). Without *Guan-xi*, a foreign business organization simply cannot get anything accomplished in the Chinese business practice (Davies et al., 1995).

#### 2.4.2.1. Guan-xi and Trust Building in China

Regarding the *Guan-xi*, network, or personal connection, the Chinese place a premium on an individual's social capital within their group of friends, relatives, and close associates while the U.S. people put a premium on networking, information, and institutions (Graham & Lam, 2003). The Chinese utilize *Guan-xi*, which emphasizes good faith and personal trust, to safeguard obligations with friends or acquaintances (Lu et al., 2009; Su & Littlefield, 2001).

Building strong personal relationships with trustworthy business partners is very important in China. Lee et al. (2006) stated that the high levels of tension during international business negotiations negatively affected interpersonal relationships with the Chinese participants. The results showed that tension for the Chinese caused a decrease in the amount of trust the Chinese felt for their American business partners. In contrast, high levels of tension for Americans did not directly affect trust.

Yet those who know how to navigate these differences in the Chinese negotiation can develop a strong personal relationship and therefore a successful business partnership (Abramson, 2005; Lu et al., 2009; Graham & Lam, 2003). Lu et al. (2009) found that a good personal relationship (*Guan-xi*) significantly improve interpersonal trust in the Chinese culture. Abramson (2005) stated that the Americans needed to deliberately and strategically build trust in advance in order to form very genuine, warm, and uncalculating relationships with their Chinese business partners.

Having the right *Guan-xi* in China is a vital factor for trust building between partners. As a seasoned Chinese businessman said, "in the Chinese culture, friends or

acquaintances are always better to do business with” (S. Q. Wu, personal communication, January 21, 2009). The reasons for friends or acquaintances to do business with each other are that they are familiar with each other and they can form strong mutual trust relationships. This strong mutual trust relationship is extremely important on each business deal. It is in the Chinese culture that the Chinese people feel more trust and willing to build dependable relationships between friends or acquaintances (Lu et al., 2009; Graham & Lam, 2003).

#### 2.4.2.2. Guan-Xi and Mutual Benefit in China

*Guan-xi* focuses on achieving mutual benefit that dominates business activity throughout China and East Asia (Davies et al., 1995; Lovett et al., 1999). *Guan-xi* can bring a wide range of benefits: guaranteeing mutual benefit and equality, bypassing or short-cutting the bureaucratic maze, obtaining updated information and privileges, and building long-term business relationships (Abramson & Ai, 1999; Davies et al., 1995; Fan, 2002b; Graham & Lam, 2003; Lovett et al., 1999; Sheng, 1979; Su & Littlefield, 2001; Yeung & Tung, 1996).

Davies et al. (1995) surveyed Chinese business executives and confirmed that *Guan-xi* with local Chinese organizations is a must in order for business to be successful. The same researchers also generated the following benefits of strong *Guan-xi* with local Chinese organizations pertaining to business activities in China: (1) sources of information, such as market trends, government policies, import regulations, and business opportunities; (2) sources of resources, such as import license applications, approval of

advertisements, approval of applications to the provincial and central governments, recruitment of labor, and securing land, electricity, and raw materials for joint ventures; and (3) other areas, such as building up a company's reputation/image, smooth transportation arrangements, and smooth collection of payments.

#### 2.4.2.3. Guan-Xi and Ethics in China

During the *Guan-xi* building process, the exchange of favors or gifts in the Chinese cultural context is friendship and trust building and it is within the legal framework in China (Davies et al., 1995; De George, 1990; Leung & Wong, 2001). Researchers believe that *Guan-xi* is in a good ethic in the Chinese culture (De George, 1990; Graham & Lam, 2003; Hwang et al., 2008; Leung & Wong, 2001; Lovett et al., 1999; Lu et al., 2009; Sheng, 1979; Yeung & Tung, 1996). *Guan-xi* is ethical and it can be used as a positioning strategy in China (Hwang et al., 2008; Leung & Wong, 2001). De George (1990) stated that since there are no universal ethical standards, whatever is commonly practiced in any location is acceptable.

*Guan-xi* is based on knowing the background of one's business partners and being familiar with their personal character qualities. Therefore, in the Chinese culture, a strong *Guan-xi* guarantees trust building, mutual benefit, equality, and long-term relationship between partners (Graham & Lam, 2003; Hwang et al., 2008; Leung & Wong, 2001; Lovett et al., 1999; Sheng, 1979; Su & Littlefield, 2001; Yeung & Tung, 1996). Most times, a strong *Guan-xi* also leads to the path of quicker and more accurate business information important for decision making. Therefore it is totally moral or even

desirable, causing no harm to other parties. It is like the popular saying in the U.S., “the early bird gets the worm.”

However, Fan (2002a, 2002b, 2007) stated that the ethic of *Guan-xi* is questionable because of the potential unfair competition, corruption, and bribery. It should be noted that the above mentioned unfair competition, corruption, and bribery are legal issues but not the concept of *Guan-xi* discussed by the author of this dissertation. It is important to make a distinction between *Guan-xi* and corruption or bribery. The central difference is that strong *Guan-xi* means people have friendship and trust among each other, while corruption and bribery are simply illegal transactions (Lovett et al., 1999).

Leung and Wong (2001) articulated that in the process of cultivating *Guan-xi*, gift giving or wine-and-dine are the means of establishing and maintaining *Guan-xi*. These activities are friendship but not equivalent to corruption or bribery. Other researchers also defend these practices of *Guan-xi* on ethical relativism by arguing that *Guan-xi* is based on eastern principles and can be as ethical as any western systems such as reciprocal personal networks (Abramson & Ai, 1999; Davies et al., 1995; Graham & Lam, 2003; Hwang et al., 2008; Leung & Wong, 2001; Lovett et al., 1999; Sheng, 1979; Yeung & Tung, 1996).

#### 2.4.2.4. *Guan-Xi* Development in China

Some researchers indicated that building *Guan-xi* in China seems difficult because it seems strange to western business people (Su & Littlefield, 2001). Other

researchers emphasized that there must be *Guan-xi* before the business relationship can foster in China (Abramson, 2005; Davies et al., 1995; Li & Wright, 2000; Lu et al., 2009). There are many popular sayings in China that indicate how to develop and cultivate *Guan-xi*. “Keep in touch” and “frequently visit each other” are two of them. Therefore, it will help develop strong *Guan-xi* in China by frequently keeping in touch or visiting each other with family members, people from their home town, school or military alumni, teachers or students, colleagues, friends, and neighbors. Also, reaching out to make new friends will help to cultivate new *Guan-xi*. New *Guan-xi* can be acquired between two persons without previous *Guan-xi* by knowing the same person (Graham & Lam, 2003; Lovett et al., 1999; Sheng, 1979). Having a strong *Guan-xi* with one person also means that one can get access to that person’s *Guan-xi*. Hwang et al. (2008) identified two most popular techniques used to establish *Guan-xi* in the Chinese culture: 1) strengthening interactions with relatives and friends; 2) strengthening interactions with classmates and colleagues.

Various social gathering activities also should be recommended in the *Guan-xi* building process. Davies et al. (1995) suggested that by bestowing favor and face through considerate and sensitive giving of minor gifts, hosting appropriate dinners, and (most importantly) giving personal attention, a business person can demonstrate the good faith that forms the basis for a gradual transition from outsider to insider person.



There is another example describing *Guan-xi* development as in the following:

*Guan-xi* is a form of social investment or social capital, an important resource that a person can tap into when there is a need to find help or support. To develop and maintain a *Guan-xi* relationship is like putting one's money into a saving account or purchasing insurance policy so that one could get help whenever he needs (Fan, 2002b, p. 549).

In China, the more *Guan-xi* one person has, the more opportunities are available for that person (Graham & Lam, 2003; Lovett et al., 1999; Sheng, 1979). In the Chinese society, a person with strong *Guan-xi* will have more resources available when needed and is well positioned to benefit in various ways (Leung & Wong, 2001). A strong *Guan-xi* with the top Chinese government is crucial for reputation-building and deal-making in businesses (Davies et al., 1995; Fan, 2007). Therefore, fully understanding *Guan-xi* and positively creating and entering *Guan-xi* relationships should assist foreign businesses in their business practices in China.

#### 2.4.3. Social Status and Social Face (*Mian-Zi*) in China

In China, social status and social face (*Mian-zi*) were described as having credibility, reputation, and respect (Cardon, 2005; Graham & Lam, 2003; Su & Littlefield, 2001). A good social status and social face means one who has respect and support from other people. Giving social face to a person is the most common practice

among Chinese people (Cardon, 2005; Graham & Lam, 2003). Giving face shows respect to a person and the activities involve granting favors, gift giving, praising, and hosting social events (Cardon, 2005). Baughn et al. (2006) stated that a strong social support from family and friends is important for business development in China.

Westerners frequently find it difficult to understand the formality of the social status and social face (*Mian-zi*) of Chinese people. For example, during business practices, the Chinese will feel insulted and lose confidence if their partners fail to send an appropriate rank of executives (Graham & Lam, 2003). In China, social status and social face are a person's place in his/her social networks and are the most important measure of the social worth of that person (Graham & Lam, 2003; Su & Littlefield, 2001). Chinese businesspersons tend to give social face to and protect social face for their U.S. business partners in formal and social situations but rarely during formal business negotiation (Cardon, 2005). Understanding the social status and social face (*Mian-zi*) in the Chinese culture by the foreign investors are important for a successful business relationship in China (Alon & Shenkar, 2003; Graham & Lam, 2003).

#### 2.4.4. Business Communication and Negotiation across Cultures

Business communication and negotiation across countries is more complicated due to differences in culture, language, and personal value (Salacuse, 2003, Zhao, 2000). Cultural differences between people have been found to affect communications and negotiations in international business (Graham & Lam, 2003; Metcalf et al., 2006; Middleton & Rodgers, 1999; Tovey, 1997; Zhao & Parks, 1995). Adler et al. (1992)

found that business negotiations between the United States and China are much more successful when business officials take a cooperative approach by identifying cultural signs of reciprocation in negotiation conditions.

Effective communication is the base of building a strong business relationship between partners (Graham & Lam, 2003; Metcalf et al., 2006; Middleton & Rodgers, 1999). In order to provide effective communication during international business transactions, negotiators have to be able to handle the tremendous differences in culture, language, and personal value. A bilingual and bicultural Chinese National who can communicate effectively across cultures can better facilitate business negotiations and therefore form partnerships (Graham & Lam, 2003).

Metcalf et al. (2006) encouraged negotiators to engage in direct discussion of both major and minor issues in the underlying business negotiations. Negotiators from some countries prefer direct and simple communication, while others employ an indirect, more complex style of communication (Salacuse, 2003). Traditionally, people think that U.S. negotiators use a more direct style of communication than negotiators from other countries. The U.S. businesspersons like to sign a legally binding agreement and get started with the task, whereas the Chinese wish to have better knowledge of the individuals with whom they are contemplating doing business (Zhao, 2000). Therefore, negotiations do not go forward until the Chinese are satisfied that a harmonious working relationship can be established. Also, the Chinese negotiators tended to ask many more questions and to interrupt one another more frequently than their U.S. counterparts (Adler et al., 1992).

In China, successful meetings in a social setting such as during dinner gathering is one of the most popular means of negotiating and building up a personal relationship and therefore a business partnership (Leung & Yeung, 1995). For the Chinese, nonverbal communication during meetings can be more important in establishing agreements than verbal and written communication (Graham & Lam, 2003). It is also customary for the Chinese to establish agreement on general principles in negotiations and move on to more specific issues at a later stage. Business negotiations breakdowns have often occurred because of Western country companies' failure to understand the much broader context of Chinese culture and values (Graham & Lam, 2003).

According to Zhao (2000), the China's international business cooperation principles are equality, mutual understanding, mutual trust, mutual benefit, and long-term cooperation. Therefore, the Chinese business culture, which is based on the above mentioned China's international business cooperation principles, is intended to reach win-win business partnerships.

#### 2.4.5. Human Resources

Internationally, economic development is more and more "globalized." The most significant challenge currently or in the next decade is to understand the collaboration in the international business network and to educate global-ready graduates for successful business development (Deardorff, & Hunter, 2006; Wong & Maher, 1997). A lack of global-ready or qualified international employees has always been a major challenge to international business development (Cui, 1998; Deardorff, & Hunter, 2006). A bilingual

and bicultural facilitator can help lower tension by recognizing emotional differences amongst cultures in business negotiations (Graham & Lam, 2003). Developing effective communications, with the help from a bilingual and bicultural facilitator, enables international business partners to be proactive in building business relationship. By involving as many local country people as possible during the development stage, foreign companies can successfully adapt to the local market system (March, 1980). Perhaps a business with long-term ties to Chinese business has come to realize the importance of a facilitator. A native facilitator can help read and explain language and culture reactions from the local business partners during formal negotiation sessions. Graham and Lam (2003) stated that it is the role of the facilitator to discuss and settle issues during business negotiation in China. Through interaction with a facilitator, the Chinese are more likely to form long-term business relationships with their American counterparts.

Wallace and Ipson (1992) stated that university training centers can address business human resource development needs in terms of time, cost, effectiveness, and risk minimization. One of the goals of a university training center is to develop a highly qualified workforce. Local businesses should use these organizations as a resource for business development if its own funding resource is limited. For example, an independent local advisory agency can help foreign investors and international businesses find a foothold in a foreign country (Rugman, 2003). Metcalfe (2006) highlighted the importance of focusing on human resources development in international business. The research also revealed a complexity of interrelations among gender, organization, culture, and values. Ohishi and Sasaki (1993) also noted that providing overseas managers with advance training on how to manage a local work force is a challenge that exists when

Japanese businesses enter into foreign markets. Without a quality workforce, businesses will not be able to compete in the global market of the 21st century.

The international competency of industry employees are now more important than ever, as more business are seeking expansion opportunities into overseas markets. The most formidable task facing MNC is the development of a cadre of employees and executives who have a deep understanding of the existence of many other cultures and their influence on business development. Although companies who are developing international business are recognizing the need for employees to have cross-cultural knowledge, the preparation remains negligible. Cui (1998) stated that bilingual and bicultural Chinese professionals with degrees from western universities are in demand for the international business organizations in China. Also, China's growing market demands the training of young Chinese managers as an alternative to using expatriates (Wong & Maher, 1997).

#### 2.4.6. Country Risk of Host Countries

In international business operations, country risk refers the external business uncertainty for a MNC that operates in a host country. Country risk includes political instability, the lack of a well-defined legal system, economic fluctuation, price and foreign exchange controls, and nationalization threat (Sun, 1995). Country risk may affect what kind of ownerships MNC plan to choose for its subsidiaries. In a highly unpredictable environment, MNC tend to limit their equity involvement by avoiding full ownership in order to diversify the business risks and at the mean time, to get greater

control over the subsidiaries in order to compensate for high risks (Sun, 1995). A country with political stability is a fundamental factor for its business development. China laws encourage and protect its business collaborations with other countries around the world (Chinese Law, 1994, 2007).

#### 2.4.7. Economic Conditions and Policies of China

The host country's economic conditions or its government policies may affect business development of MNC. Foreign investors should consider the current or potential economic growth trend of a host country, including both its international and domestic market size. A country with a booming economy and rapidly expanding market would strengthen its attraction for foreign investment (Chen, 2001).

In China, many incentives are being offered to MNC to attract foreign investment, such as tax breaks, pledges of governmental assistance, or improved infrastructure and labor standards (Chinese Law, 1994). For instance, in the Special Economic Zones granted by the central government throughout China, a special preferential tax rate rather than a normal tax rate is applied to foreign investments. In the southeast coastal region of China, as economic reforms have progressed, the economy of this region has become a truly liberalized market economy and consequently, economic efficiency has been improved considerably (Sun, 1995).

#### 2.4.8. Training of Business Professionals

As many businesses are seeking expansion opportunities into overseas markets, cross-cultural awareness is now more important than ever. Individuals who are sent overseas for business development opportunities without adequate cross-culture awareness training often fail (Li, 1995). There are significant costs associated with this failure. According to Middleton and Rodgers (1999), it appears that it may be more appropriate to focus on ways to get U.S. people to communicate across international cultures than on ways to get international people indoctrinated into western culture in the U.S.

The pursuit of knowledge in specific fields may be enhanced through activities that foster understanding across cultural and national boundaries. Leung and Wong (2001) suggested that cultural training should be given to foreign business people so that they know how to interact with their Chinese counterparts, search particular business opportunities, and protect themselves in an unfamiliar cultural environment. Without appropriate training, there are challenges for businesspersons to identify unfamiliar cultural signs (Adler et al., 1992).

Regarding the training courses offered by international business programs, Siu (1992) found that Chinese international business educators place more emphasis on technical detail aspects while American counterparts emphasize management. Beamish and Calof (1989) stated that content of international courses should be set in consultation with industry in order that its relevance be assured. In their study, Beamish and Calof



also found that corporations did not feel that academe was adequately responding to their international needs.

As an international business training and education organization, the Centers for International Business Education and Research (CIBER) were created through the Omnibus Trade and Competitiveness Act of 1988 (CIBER, 2008). These centers, administered by the U.S. Department of Education, are located at 31 universities across the country, with more than 900 programs geared toward increasing the international competitiveness of U.S. firms (CIBER, 2008; Committee for Economic Development, 2006). The activities of CIBER include internationalizing the business curriculum and providing training support to business firms seeking to develop overseas markets (CIBER, 2008). The CIBER links the manpower and technological needs of the United States business community with the international education, language training, and research capacities of universities across the country. Their mission is to serve as a resource for the business communities on international business issues by providing instruction in foreign languages and culture critical for U.S. business in the global aspects of trade and commerce. As the Committee for Economic Development (2006) emphasized that the success in improving and expanding international studies will have extremely important implications for America's economic security.

## 2.5. Background of U.S. and Chinese Agriculture

### 2.5.1. Agriculture in the U.S.

The U.S. is the world's most powerful nation and its economy is marked by steady growth with rapid advances in technology. The U.S. is one of the leaders of the world in agricultural production utilizing many advanced technologies.

Agricultural technology and information exchanges in the U.S. are extremely popular and fast. The computer usage and internet accessibility at U.S. farms are listed in Table 2.2.

Table 2.2

*Computer Usage and Internet Access at Farms in the U.S. in 2002*

	Number of farms	Percentage (%)
Computer usage for farm business	827,215	39
Internet access	1,056,875	50

*Note:* Source from the Census of Agriculture, USDA, 2008.

From the production side, although genetic engineering is being employed in various parts of the world, crop seed companies in the U.S. are among the leading force on genetic alteration and biotechnology (USDA Foreign Agricultural Service, 2004). These technologies have created crops with many traits which are beneficial to the world agricultural productivity. These traits include weed resistance, insecticide resistance, and drought resistance that improve efficiency, reduce energy consumption, and improve environmental impacts.

There are many other technologies being used in the animal production sector, including enhancing livestock growth by providing new nutritional additives and feed formulation, as well as decreasing environmental problems such as solving land pollution and odor issues. As for food safety for human beings, there are many new biotech products in the U.S. applied to both crop and animal industry that are intended to decrease drug residuals in products for human consumption (USDA Foreign Agricultural Service, 2004).

However, there are new issues U.S. agriculture will face. An example is the demand for large amounts of petroleum for energy which is causing the U.S. farmers to raise crops such as corn for biofuel industry in an effort to help mitigate the rapidly increasing demand for petroleum (USDA, 2008). Higher incentives for farmers in the U.S. to grow non-food biofuel crops would be a factor either causing food shortages or dramatic rising in food prices in the U.S. and around the globe.

An overview of U.S. agriculture production and market value is provided in Table 2.3 and Table 2.4.

Table 2.3

*Production of Selected Agricultural Products in the U.S.*

Products		2003	2004	2005
Crops ( <sup>'000</sup> metric tons)	Wheat	63,814	58,738	57,280
	Rice	9,068	10,540	10,125
	Barley	6,059	6,091	4,613
	Corn	256,278	299,914	282,311
	Oats	2,096	1,679	1,667
	Potatoes	20,766	20,686	19,091
	Sugar cane	30,715	26,320	25,087
	Soybeans	66,778	85,013	83,368
	Oranges	10,473	11,677	8,393
	Apples	3,948	4,700	4,428
	Cotton	3,975	5,062	5,201
Livestock ( <sup>'000</sup> heads)	Cattle	96,100	94,888	95,848
	Pigs	59,554	60,444	60,645
	Sheep	6,321	6,105	6,135
	Chicken (million)	1,920	1,985	2,035
	Turkeys (million)	87	88	88
Livestock product ( <sup>'000</sup> metric tons)	Cattle meat	12,039	11,261	11,317
	Sheep meat	92	90	88
	Pig meat	9,056	9,312	9,392
	Chicken meat	14,696	15,286	15,869
	Cow milk	77,289	77,519	80,265
	Eggs	5,169	5,278	5,330

*Note:* Source from The Europa World Year Book 2007.

Table 2.4

*Market Value of U.S. Agricultural Products Sold in 2002*

Products	Sales (\$1,000)	Percentage (%)
Crop production		
Grains, oilseeds, dry beans, and dry peas	39,957,698	19.9
Nursery, greenhouse, floriculture, and sod	14,686,390	7.3
Fruits, tree nuts, and berries	13,770,603	6.9
Vegetables, melons, potatoes, and sweet potatoes	12,785,898	6.4
Other crops and hay	7,929,618	4.0
Cotton and cottonseed	4,005,366	2.0
Animal production		
Cattle and calves	45,115,184	22.5
Poultry and eggs	23,972,333	11.9
Milk and other dairy products from cows	20,281,166	10.1
Hogs and pigs	12,400,977	6.2
Others	5,741,122	2.8
Total	200,646,355	100.0

*Note:* Source from The Census of Agriculture, USDA, 2008.

### 2.5.2. Agriculture in China

Agriculture has become the most important economic activity in China and it employs the majority of the labor force (Chinese Ministry of Agriculture, 2008). China has over 1.3 billion people and almost 64% of its population is employed in agriculture (FAO, 2007). China produces agricultural products such as corn, soybeans, rice, vegetables, sweet potatoes, wheat, potatoes, watermelons, and livestock (Chinese Ministry of Agriculture, 2008). China also imports agricultural commodities such as soybeans, soybean oil, corn, and wheat (USDA Foreign Agricultural Service, 2004).

Since 1978, the Chinese leadership has moved the economy from a centrally planned economy to a more market-oriented system (Chen, 2001; Sun, 1995). Chinese agriculture depends more and more on mechanical devices versus traditional human labor force. The usage of agricultural tractors and its growth rate in China from 1995 to 2003 are shown in Table 2.5.

Table 2.5  
*Agricultural Tractors in Use in China*

	1995	2003	Annual growth rate, % (1995-2003)
China	685,202	995,421	4.8
World	26,231,389	27,634,185	0.7

*Note:* Source from the FAO, selected indicators of food and agricultural development in the Asia-Pacific region 1996-2006, published in 2007.

Over the past 30 years of reform and world engagement, China's agriculture has scored achievements of world interest. However, over use of former farm lands and growing consumer demand in China may cause food shortages as well as raise food prices in China (Chinese Ministry of Agriculture, 2008; The Chinese State Council, 2001). China is in urgent need of science and technology to quicken the pace of its agriculture modernization. The Chinese government has decided to allocate great investment annually to help the transfer of Chinese agricultural scientific achievements into the agricultural production.

The Chinese government published the Agricultural Science and Technology Development Program (2001-2010) in 2001 with a focus on establishing new agricultural science and technology innovative system and bringing about a leap from traditional agriculture to modern agriculture (The Chinese State Council, 2001). The development of China's agriculture and the rural economy are to re-adjust the agricultural structure, enhance agricultural efficiency, increase farmers' income, improve the rural ecological environment and bring about a sustained and stable development of agriculture and the rural economy. Scientists are expected to carry out more and more studies on animal and plant genetic modification, food security, and mechanization of farm work. China also adopts advanced agricultural technology from the rest of the world extremely fast. China will increase agricultural technology collaboration and technology exchanges with developed countries within the WTO framework (The Chinese State Council, 2001).

New technology will increase farmers' skills and improve agricultural productivity. The Chinese technology development priority is to increase farmers'

familiarity with new techniques, including knowledge in water-saving irrigation methods, high-yield crop cultivation, farm produce processing, animal husbandry, pest prevention, livestock vaccines and fodder, toxic-free and environmental-friendly food production, as well as storing, processing and packaging of grains, edible oil, fruits, vegetables, meat and dairy products (Chinese Ministry of Agriculture, 2008; The Chinese State Council, 2001). With the emergence of life science, bio-technology, and computer and information technology, it is necessary to comprehensively start a new agricultural technological revolution and rely on science and technology to promote the revitalization of China's agriculture and rural economy.

## 2.6. Agriculture Internationalization in the U.S. and China

### 2.6.1. Internationalization of the U.S. Agriculture

The most direct U.S. government office leading the internationalization of agriculture is the U.S. Department of Agriculture (USDA) Foreign Agricultural Service (FAS) (USDA Foreign Agricultural Service, 2008). The FAS works to improve foreign market access for U.S. products, build new markets, and improve the competitive position of U.S. agriculture in the global marketplace. FAS has the primary responsibility for USDA's international activities including market development, trade agreements and negotiations, and the collection and analysis of statistics and market information. In FY 2002, USDA spending on international business promotion totaled \$123.4 million and private spending was \$208 million (USDA Foreign Agricultural



Service, 2004). Besides the federal government, most state governments also actively assist foreign business development by forming international trade missions to seek trade and investment opportunities. There are also many private international organizations in the U.S. representing different commodity or regional interests in assisting foreign business development.

### 2.6.2. Internationalization of the Chinese Agriculture

The most direct Chinese government offices who are leading the agriculture internationalization efforts are the Chinese Ministry of Agriculture (MOA) and the China Council for the Promotion of International Trade-Specialized Sub-Council for Agriculture (CCPIT-SSA) (Chinese Law, 1994; USDA Foreign Agricultural Service, 2004). At the province-level government, some provinces in China have a tradition to form sister-state relationships with one of the states in the U.S. in order to foster friendship, trade, and other relationships between the two regions. Sister-state relationship examples are the Connecticut-Shandong province and the Indiana-Zhejiang province, with both having more than a 20 years long relationship. The long time sister-state relationship has fostered friendship, culture, trade, and other relationships between the U.S. and China (“History of the Connecticut-Shandong Relationship,” 2009). Many Chinese agricultural government and business leaders have visited the U.S. business and vice versa. There are also many private international organizations in China representing different commodity or regional interests in assisting foreign business development.

### 2.6.3. Agricultural Trade in the U.S. and China

The United States is the world's leading agricultural trader. The U.S. agricultural imports have grown at an annual rate of 12.6 percent from 2004 to 2008, and the U.S. agricultural exports have grown by 21.3 percent annually over the same period (Outlook for U.S. Agricultural Trade, USDA, 2008). The U.S. agricultural trade during 2004-2008 is listed in Table 2.6.

Table 2.6

*U.S. Agricultural Trade during Fiscal Years 2004-2008 (in billion of U.S. dollars)*

	2004	2005	2006	2007	2008
Exports	62.4	62.5	68.6	82.2	115.5
Imports	52.7	57.7	64.0	70.1	79.3

*Note:* Source from the Outlook for U.S. Agricultural Trade, USDA, 2008.

China is one of the big net agricultural importer countries. Chinese government constantly promotes international trade cooperation and technological exchange in agriculture, along with assisting agricultural industry's visiting and participating in international agricultural expositions. As a result, agricultural imports have grown at an annual rate of 13.6 percent from 1995 to 2005, and agricultural exports have grown by 9 percent annually over the same period (FAO, 2007). According to FAO (2007), within

the Chinese agricultural trade in 2005, the import value was 47.8 billion and the export value was \$23.1 billion.

In 2006, the exports and imports of agriculture products are 3.4% and 6.5%, respectively, of the total volume of Chinese merchandise trade, and are 8.9% and 5.4%, respectively, of the total volume of the U.S. merchandise trade (WTO, 2008). Of note, China is the main trading partner of the U.S. business sectors. China ranked as the first import partner and third export partner for the U.S. in 2007. The exports and imports of selected agricultural commodities of the U.S. and China are listed in Table 2.7.

Table 2.7  
*Exports and Imports of Selected Agricultural Commodities of U.S. and China*<sup>1,2,3,4,5</sup>

	Weight (,000 metric tons)		Ranking in the world	
	U.S.	China	U.S.	China
<i>Exports</i>				
Meat	4,257	942	1	6
Milk	3,195	- <sup>3</sup>	4	-
Cereals	83,252	13,924	1	6
Oilseeds	29,625	996	1	7
Fresh citrus	1,132	290	1	8
Tropical beverages	-	278	-	9
Fibers	2,918	-	1	-
<i>Imports</i>				
Meat	2,021	1,762 <sup>4</sup>	3	4
Milk	2,136	2,292	4	3
Bananas	3,886	383	1	6
Oilseeds	818	17,910	10	2
Fresh citrus	449	260 <sup>5</sup>	4	7
Tropical beverages	1,690	-	2	-
Fibers	-	1,223	-	1

*Note:* <sup>1</sup> Source from the FAO, 2008; <sup>2</sup> Data are the average weight of each commodity of 2002, 2003, and 2004; <sup>3</sup> Data are not available when the U.S. or China is not among the world top ten largest exporter or importer of a commodity listed above; <sup>4</sup> Data represent the total of China and Hong Kong; <sup>5</sup> Data represent Hong Kong.

## 2.7. U.S.-China Business Partnership Development

With the world's largest consumer base, China has become a very attractive market for foreign investors. However, most foreign investors know very little about doing business in China and even less about the way in which its unique business culture and authoritarian government would control their success (U.S. & foreign commercial service and U.S. Department of State, 2006; Wong & Maher, 1997). Market research in China for a U.S. company is essential to understand the Chinese market and Chinese business culture.

### 2.7.1. Market Development Examples

There is much potential in the Chinese market. Both General Electric Company (GE) and General Motors Corporation (GM) have recognized the Chinese market potential and are actively pursuing business opportunities in China. According to *Financial Times* (Dyer & Marsh, 2008), GE planned to invest up to \$2 billion from 2008 to 2010 in acquisitions and other deals such as joint ventures in China as part of a strategy to double its revenues in the country. According to *Industry Week* (2008), GM was making money in China and was continuing its investments in the Chinese market, including expansion in the Chinese existing plants. Both GE's aggressive business development and GM's expansion of existing plants in China indicates their intention to expand China business rapidly at a time of a slowing U.S. economy in 2008.

There are many other non-agricultural companies who have recognized the differences in U.S. and Chinese business cultures in the development of successful

market strategies. Best Buy Co., Inc. (Best Buy) is one of the examples who have been taking a customer-centric approach in the Chinese marketplace, and able to engage in the China market by having a local presence, not just in one location but in other places throughout mainland China as well (Wolff, 2006). This move enhanced its sales ability by driving the company toward customer-centered instead of product-centered sales. This example showed the importance of understanding the local situation in establishing relationships with the Chinese market. In other words, Best Buy focused on understanding Chinese business cultures and values which allowed for the development of a long-term and lasting partnership.

In terms of the U.S. agribusiness sector, Archer Daniels Midland Company (ADM) recognized the Chinese market growth potential during the 1980s. According to *Financial Times* (2005), ADM understood that China would need tremendous protein from other countries for their growing population. ADM thus began joint ventures with a state-owned Chinese company. In the 1980s, ADM established a small oilseed processing factory in China. At the beginning, the primary concern from the Chinese government and business partner was the trust of ADM and the ADM executives had difficulties overcoming many barriers because of the soybeans embargoes put in place by the U.S. government. The Chinese government and business partners were unsure about the reliability of an U.S. company as the global support mechanism for Chinese food supply. After many communication opportunities with the Chinese government and business partners, ADM was able to build trust and create a long-term relationship by convincing the Chinese government and business partners that they were prepared as a public company to commit to market development and ensure China of a supply of

soybeans from other countries. The factory investment from the Chinese government and business partners has therefore been very supportive for ADM and the ADM China-based company has become one of the largest oilseed processor in the world since then.

Another example in the agribusiness sector is the business partnership formed between Smithfield Foods Inc. (Smithfield Foods), the largest producer and processor of pork in the U.S., and the China National Cereals, Oils and Foodstuffs Co., Limited (COFCO), China's largest national agricultural trading and processing company. According to company news releases from Smithfield Foods (2008), Smithfield Foods entered into an agreement with COFCO, allowing China's largest agricultural trading and processing company to buy approximately 5 percent of the company's stock shares. The business partnership with Smithfield Foods is part of COFCO's investment strategy to acquire the technology and management skills of the U.S. company and to expand the pork industry in China. In the mean time, the business partnership with COFCO has introduced Smithfield Foods many business opportunities in China. China is experiencing rapid growth in pork consumption and consumes more pork than the rest of the world combined. Consumption in China, the world's largest pork producer and consumer, has been growing fast in recent years. Smithfield Foods believes that this newly formed Chinese business partnership represents a significant step for its long-term relationship with China's agricultural business.

### 2.7.2. Market Development Activities and Strategies

Activities that U.S. agricultural companies could use to build partnerships or promote exports in China include trade missions, either government-funded or non-government funded (USDA Foreign Agricultural Service, 2008). Trade missions are to introduce foreign business to a country's products and investments. Trade missions could include trade delegations to the exporting country or from the importing country to visit producers, processors, or packers, as well as public or private sector officials.

Other activities could include attending and participating international expositions by U.S. agricultural companies. The International Poultry Exposition/International Feed Exposition (IPE/IFE) and the World Pork Exposition are two greater examples. For instance, nearly 4,000 international attendees were present at the 2008 International Poultry Exposition/International Feed Exposition hosted in Atlanta, Georgia (IPE/IFE, 2008). The Chinese agricultural companies have become the second largest international exhibitors in the International Poultry Exposition/International Feed Exposition, following behind only Canada in 2007 and 2008 (IPE/IFE, 2007, 2008). Attending and participating international shows could be an important way to introduce new products and make business contacts worldwide.

Furthermore, there are many annual industry gatherings being conducted by U.S. agricultural companies to develop further Chinese business partner relationships. The industry gatherings could include invitation of Chinese delegations to the U.S. to attend technical training, seminars, conferences, workshops, and symposiums, as well as visit research centers and universities (C. Knight, personal communication, August 22, 2007).



In order to build business experience in China, foreign investors need to be familiar with China's unique business culture and how its authoritarian government would control their business success (U.S. & Foreign Commercial Service and U.S. Department of State, 2006; Wong & Maher, 1997). Therefore, Chinese market training programs could be incorporated into the above mentioned trade missions, industry gatherings, and international shows. It is a great strategic plan for any desired U.S. agricultural company to conduct training on the key components for development of an effective market in China.

## 2.8. Summary

With tremendous growth both in the global economies and Chinese economy, many market opportunities exist for the U.S. agricultural businesses. As a result, many agricultural companies in the U.S. have been able to develop successful international markets for their products in China.

However, considerable uncertainty, misunderstanding, and divergence of opinion still exist among businesses that are currently developing their foreign markets. Currently, there is a growing need for research in practices that will benefit U.S. agribusinesses who are trying to develop a China market or establish business partnerships with Chinese companies. Especially, multicultural education and systematic training programs could play an important role in assisting the U.S. and China economic collaboration and therefore successful exchanges on agricultural technological between the two countries could be happen.

The research goal of this study is to identify the key components and their importance for the development of a successful China business by U.S. agriculture companies. In addition to the identification of key components, training topics will be developed for agricultural educators to assist international business development. This research project will, in the long-term, promote international collaboration on agricultural education, research, and extension.

## CHAPTER 3. METHODOLOGY

Chapter 3 describes the methodology used to complete the objectives of this project and includes details of how this research was conducted. This chapter is organized as follows:

- 1) The Delphi method
- 2) Panel size
- 3) Panel selection
- 4) Process of securing of panel members
- 5) Assurance of panel member's confidentiality
- 6) Rounds
- 7) Duration
- 8) Evaluation method and importance level determination
- 9) Consensus determination
- 10) Stability determination
- 11) Development of the research instruments
- 12) Survey instrument validity
- 13) Web-based Delphi survey
- 14) First round
- 15) Second round
- 16) Third round
- 17) Data analysis

### 3.1. The Delphi Method

To accomplish the goals of this research project, the study utilized the Delphi method, also called Delphi technique, described by Linstone and Turoff (1975). The Delphi method, describing the use of expert opinion, was invented and developed by the RAND Corporation in the early 1950s. The Delphi method is “to be characterized as a method for structuring a group communication process so that the process is effective in allowing a group of individuals, as a whole, to deal with a complex problem” and “to obtain the most reliable consensus of opinion of a group of experts ... by a series of intensive questionnaires interspersed with controlled opinion feedback” (Linstone & Turoff, 1975, p. 3-12).

Although the Delphi method may have been viewed originally focused in defense research, it has found its way into a variety of other application areas, including public health care (Adler & Ziglio, 1996), educational research (Broady, 1998; Hunter, 2004; Scott et al., 2006), and business research (Brill et al., 2006; Olshfski & Joseph, 1991; Thach & Murphy, 1995). The Delphi method has been widely used in curriculum design and business strategies evaluation (Linstone & Turoff, 1975; Olshfski & Joseph, 1991; Wang, 2000). Especially, in the study by Olshfski and Joseph (1991), the Delphi method operated as a needs assessment tool and the researchers described the use of the Delphi method to identify the content of executive training programs.

The Delphi method is essentially a method for aggregating the opinions of a group of individuals who are considered to be in a position to make an informed input. The Delphi method is useful in obtaining input into an evaluation related to a current situation or a situation which is considered likely to exist in the future (Linstone &

Turoff, 1975). In a Delphi study, individuals who have knowledge necessary to analyze a specific problem are carefully selected and invited to participate in a series of surveys. The Delphi method is a technique of gathering data that is similar to focus groups. However, the Delphi panel does not have to physically meet. The Delphi method is a technique for generating ideas and facilitating consensus among individuals who have special knowledge to share. A typical Delphi study starts with an open-ended survey being presented to a group of experts in the first round, also named the contributory round. The results are analyzed and from these results a new survey is prepared for rating or ranking of the importance in the second round. The group of experts will have been given a chance to reevaluate their original answers in light of the group response. This is done in an attempt to achieve consensus. The process may be repeated as many times as is deemed appropriate in order to reach consensus. However, the advantages begin to diminish quickly after three rounds (Worthen & Sanders, 1987). Note that in a modified Delphi study, the first round usually asks participants a list of close-ended questions for rating or ranking instead of answering open-ended questions (Wang, 2000).

### 3.1.1. Advantages of Delphi Method

The Delphi method is a research method frequently used for eliciting consensus from within a group of experts and has many advantages over other methods of using panel decision making. According to Delbecq et al. (1975), Helmer (1983), and Linstone and Turoff (1975), there are many advantages of using the Delphi method. These advantages include:

- 1) One of the major advantages of the using Delphi method as a group response is that consensus emerges from the experts on a topic;
- 2) Another advantage of the Delphi method is that many barriers to communication are overcome because the Delphi method provides confidentiality. Therefore, panel members feel no pressure to state unpopular views, to disagree with one's associates, or to modify previously stated positions;
- 3) Moreover, the Delphi method provides an advantage of no face-to-face meetings and anonymity is assured during the research. The committee-free environment and anonymity of Delphi stimulate reflection and imagination while avoiding conflicts of personality and forcing opinions on the group by virtue of position or status;
- 4) Another major advantage of the Delphi method is the flexible time and geography parameters with which individuals have to respond to the questionnaires. This flexibility allows individuals, who may be restricted by daily schedules and geographic location, the opportunity to respond at times available to them;
- 5) Furthermore, the time cost to participants is minor especially after the first successful contact when participants have become familiar with the options. Using the web as a tool in a Delphi study will spread because it can cut down the time involved even more. Traditionally, costs of time and transportation most often make frequent physical group meetings infeasible;

- 6) Lastly, the advantage of the Delphi method as a tool is its minimal cost for maximum output. The costs in a Delphi study may be limited to panel recruitment and survey questionnaires designing, printing, or postage. Perhaps the highest cost and most important input is attributed to overall administration of the project by the researchers.

Furthermore, the Delphi method offers some advantages over a one-shot questionnaire (Helmer, 1983; Linstone & Turoff, 1975). A one-shot questionnaire may not provide sufficient information to the researchers. A one-shot questionnaire generally only asks participants to analyze the situation but provides them no opportunity to reflect on the situation, to consult other members, or to refine their opinions. A one-shot questionnaire is structured to yield quick responses but give participants no opportunity to reevaluate their original answers in light of the group response and thus does not offer the opportunity for group consensus. Therefore, the results from a Delphi study are more able to represent the true voice of the participants.

### 3.1.2. Disadvantages of Delphi Method

Although the Delphi method has been used in many research studies, there are some pitfalls associated with this method. Using Delphi as a research method may present several disadvantages (Delbecq et al., 1975; Helmer, 1983; Linstone & Turoff, 1975):

- 1) Firstly, the data reliability depends on the abilities of the selected panel of experts in a Delphi study, therefore great care must be taken in selecting them;
- 2) Second, in order to achieve consensus and/or stability, a Delphi study has to involve several survey rounds and consequently can take a longer period time to complete. As a result, the Delphi method should be avoided in a crisis condition;
- 3) Third, ignoring and not sufficiently investigating disagreements;
- 4) Lastly, lack of motivation from the panel to fully participate and maintain their interests in multiple rounds of questions in the Delphi study.

Despite having these disadvantages, many researchers agree that the Delphi method is a valuable tool for building consensus on a critical issue (Adler & Ziglio, 1996; Brill et al., 2006; Broady, 1998; Delbecq et al., 1975; Hunter, 2004; Linstone & Turoff 1975; Olshfski & Joseph, 1991; Scott et al., 2006; Thach & Murphy, 1995; Wang, 2000).

### 3.2. Panel Size

According to Turoff (1975), the Delphi panel size can be anywhere from 10 to 50 people. A Delphi panel that consists of a homogeneous group, such as a group of experts from the same general discipline area, need only involve 10 to 15 people (Delbecq et al., 1975). A review of the panel size in other Delphi studies indicates a range of 18 to 34 members were utilized by researchers (Broady, 1998; Dalkey, 1975; Goldstein, 1975; Jillson, 1975; Maloney, 1991; Olshfski & Joseph, 1991; Wang, 2000). Therefore,



approximately 50 professionals who have knowledge in agriculture business were initially contacted to participate in this study. Of the 50 professionals, 39 professionals agreed to participate in the study and 37 people completed the first round. Two of the 39 professionals did not complete the first round survey. One person accepted a one-year overseas assignment during the research period and the other person failed to return the survey after multiple contacts. Of the 37 professionals who completed the first round survey, 34 people completed the second round survey. Three of the 37 professionals failed to return the second round survey after multiple contacts. As a result, the same 34 professionals who completed the second round survey were contacted to participate in the third round and thereafter completed the survey. The number of participants in this study is listed in Table 3.1.

Table 3.1  
*Panel Size in This Study*

	First round	Second round	Third round
Panel size	37	34	34

### 3.3. Panel Selection

The purposive sampling method was used to select the panel in order to identify experts with experiences related to business development in China. The right expert who understood the issue and had the experience is very important to this research. The purposive sampling method can yield crucial information for a specific situation (Ary et al., 2006; Patton, 2002). The panel members were U.S. agriculture business experts that understood the research topics, had international agriculture business experience, and were willing to share such experiences. In order to make sure the research results can have impact both in the eastern and western cultural background, the ethnic backgrounds of the experts were intentionally chosen to be a mix of Caucasian and Chinese heritage. A purposefully selected panel should have an increased willingness to participate and return the survey.

The majority of the panel members were chosen from the U.S. agricultural industries associated with feed, swine, cattle, poultry, animal housing/equipment, and biotech. Other panel members were chosen from the U.S. government, education/universities, consulting/training companies, and agricultural product distributors.

The majority of the panel members were identified from four international annual agricultural expositions and conferences held in the U.S. during 2007 and 2008 (Table 3.2). The expositions and conferences are a networking hub of the world for the feed, swine, and poultry industries as well as other related segments. The agricultural companies participating in the expositions and conferences represent advanced agricultural technologies throughout the world, especially in the U.S. Additional panel

members were chosen from companies that were the sponsors and participants of the 2007 Multi-State Feeding and Nutrition Conference (Indianapolis, IN) and the 2008 Indiana State Poultry Association Banquet (Indianapolis, IN).

Table 3.2

*Selected International Agricultural Expositions and Conferences attended in the U.S.*

	Place	Year
1. The International Poultry Exposition and the International Feed Exposition	Atlanta, GA	2007
2. The International Poultry Exposition and the International Feed Exposition	Atlanta, GA	2008
3. The 19 <sup>th</sup> World Pork Exhibition	Des Moines, IA	2007
4. The joint Annual Meeting of the American Society of Animal Science (ASAS), Poultry Science Association (PSA), the American Dairy Science Association (ADSA), and Asociación Mexicana de Producción Animal (AMPA)	San Antonio, TX	2007

The researcher in this study personally attended the above national or international annual conferences and expositions and other events in the U.S. during 2007 and 2008. The purpose of participating in these agricultural expositions and conferences by the researcher was to:

- 1) Develop networks with company representatives;
- 2) Make direct contacts with agricultural company representatives and identify key contacts from each targeting agricultural company;
- 3) Achieve updated international agriculture business development information.

These efforts should increase the likelihood of survey participants actively participating in all aspects of this study. During the researcher's personal visit at the conferences and expositions, the researcher briefly interacted with the company representatives in an effort to understand the company background and identify the right professional contacts for the study. The researcher also collected business cards from the tradeshow booths or interested company representatives. Through personal interaction with these company representatives, the researcher was able to identify approximately 50 companies that would contribute to the panel pool.

#### 3.4. Process of Securing Panel Members

Panel members were contacted either personally or by phone to secure their willingness to participate in the research before actual data collection. During the initial

contact, the researcher explained the purpose and the benefits of participation in this study to the panel members. The research method and procedures as well as anticipated time commitment by the participant were explained. Participants were assured they would have access to the results upon completion of the project. However, participation in the research project was fully voluntary and there was no penalty if participants choose to stop their involvement at any point during the project.

At the end of the study, a gift along with a thank you note was mailed to the participants who completed all three rounds in appreciation for their participation.

### 3.5. Assurance of Panel Members' Confidentiality

The design nature of this Delphi study required the researcher to match individual panel members on data collected between the various rounds. To assure confidentiality, the researcher assigned an identification number to each participant and his/her survey questionnaire. Data were compiled electronically using only the identification number. The reporting of the results from this study did not identify individual participants.

This research was subject to review by the Purdue University Institutional Review Board (IRB). The research was approved on May 9, 2008 with reference number: 0804006773. See Appendix A for documentation applying to approval and permission to conduct research on human subjects. All participants' identifying information, survey questionnaires, and data collected during this research were kept in a locked and secured file in a locked room in the Agricultural Administration Building at Purdue University.

### 3.6. Rounds

The Delphi method is a technique of generating ideas and facilitating consensus among individuals who have special knowledge to share. A typical Delphi study starts with an open-ended questionnaire survey being presented to a group of experts in the first round, also named contributory round. The results are analyzed and from these results a new survey is prepared. During the second round, the experts were asked to rate the importance of each item generated in the first round. The experts were given a chance to re-rate the importance of each item in light of the group response. This is done in an attempt to arrive at a consensus conclusion. The process may be repeated as many times as is deemed appropriate in order to reach consensus. Although there are more than three rounds in some Delphi studies, most often the Delphi researchers use two or three rounds (Dalkey, 1975; Goldstein, 1975; Jillson, 1975; Maloney, 1991; Olshfski & Joseph, 1991; Wang, 2000). Consensus changes begin to diminish quickly after three rounds in a Delphi study (Worthen & Sanders, 1987). In a Delphi study, Broady (1998) reported greatest consensus movement during first re-rating process (second round) but minimal additional consensus movement during second re-rating process (third round). In another Delphi study, Wang (2000) reported only six of 42 items changed consensus level during the first re-rating process and only one of the 42 items changed consensus level during second re-rating process. Dillman (2007) also suggested that surveying the same people many times may decrease the effectiveness of a survey. However, the design nature of this Delphi study involves the same people during multiple rounds. In consideration of the above mentioned facts, for this study it was anticipated that four Delphi rounds were

necessary. However, this study stopped after the third round because the data from the third round satisfied current consensus achievement.

### 3.7. Duration

Olshfski and Joseph (1991) reported that it took less than four months to complete a three round Delphi study through post mailing services. Furthermore, in the study by Scott et al. (2006), a web-based Delphi technique provides an advantage in that each Delphi round only took 10 to 14 days. Delbecq et al. (1975) estimated that a minimum of 45 days is required to carry out a Delphi study. This study provided participants the option of completing web-based questionnaires in order to facilitate completion of the Delphi study in a timely manner.

In this study, the participants were requested to return the online survey no later than two weeks once the survey questionnaires were sent. A short email message remainder containing the web link and password to access the online questionnaire was sent to the participants that did not complete the survey a day before the due date. The same email reminder message was repeated weekly to the participants that did not complete the survey by the due date with an indication that the survey was still available. A phone call was also made to remind the participants that did not complete the survey by the due date.

Although this study originally estimated two weeks for the return of each round of surveys from the participants, the actual time period for return each round took longer than expected, ranging from three to seven weeks for each round. The reasons were: (1)

some participants were traveling internationally and spent long periods of time out of their office; and (2) participants' internet accessibility was limited depending on the foreign country where they were traveling.

In this study, the first round started in early July of 2008 and the third survey ended early December of 2008. Therefore, this study took approximately five months for data collection completion. This was because the current study involved multiple surveys. With resulting survey questionnaires being based on each previous survey's data set along with the need for each research instrument being reviewed and approved by Purdue University IRB, the process was prolonged. In this study, the survey instruments for the second and third rounds were based on the first and second round data respectively and survey instruments could not be developed until previous rounds were completed and the data analyzed.

### 3.8. Evaluation Method and Importance Level Determination

Evaluation methods often used in Delphi studies are seldom discussed. The two most common evaluation methods in a Delphi study are Likert rating and simple ranking scale. Since the Likert method entails rating one item at a time, participants generally find the process to be one that can be completed quickly and one that is easy to understand. Although the simple ranking method is fairly easy when a small number of items are being examined, this procedure can be problematic since it assumedly prevents participants from giving two items an equal ranking and it becomes increasingly difficult to require participants to rank the entire list of a large number of items. In a Delphi



study, Scheibe et al. (1975) compared three scaling evaluation methods: simple ranking, Likert rating, and pair-comparisons. They found that the Likert rating was considered by the participants as the most comfortable and easy to use. In the same study, the researchers also pointed out that the biggest limitation of the pair-comparison method is that it requires a considerable amount of participants' time.

Qualitative categorical descriptions are an important feature of a Likert rating scale. For example, if only the scale points (e.g. from 1 to 10) are given without description, some participants may select one number rarely whereas others may select the same number often. Further, it is the researcher's assumption that a wide Likert rating range (e.g. from 1 to 10) providing no or nearly no verbal descriptions leads to a potential indistinctness, making it difficult for participants to distinguish and assign a scale point. Therefore, this current Delphi study utilized a five-point Likert rating scale with qualitative categorical descriptions, such as Not Important (1), Slightly Important (2), Moderately Important (3), Very Important (4), and Essential (5). One advantage of this five-point Likert is that it will eliminate the potential risk of receiving frequent neutral votes (e.g. undecided) from participants.

Wang (2000) utilized the median scores of the importance rating of items to determine the importance level. In this Delphi study, the importance of each key component was based on its median score and was defined as follows: 1) a median score of the importance rating of a key component that is equal to 4.5 or 5.0 was defined as essential; 2) a median score of the importance rating of a key component that is equal to 3.5 or 4.0 was defined as very important; 3) a median score of the importance rating of a key component that is equal to 2.5 or 3.0 was defined as moderately important; 4) a

median score of the importance rating of a key component that is equal to 1.50 or 2.0 was defined as slightly important; and 5) a median score of the importance rating of a key component that is equal to 1.0 was defined as unimportant. Essential (4.5 or 5.0) was defined as a necessary key component for U.S. agricultural companies when entering the Chinese market.

### 3.9. Consensus Determination

Measurements of central tendency give researchers a convenient way of describing the variability of a set of data. To measure the variability of a set of data, the three most frequently utilized indicators are: range, quartile deviation, and standard deviation (Baumann et al. 2001; Maloney, 1991; Scheibe et al., 1975; Wang, 2000). The range is simply the difference between the highest score and the lowest score in a distribution. The quartile deviation is one-half of the difference between the upper quartile and the lower quartile in a distribution. The upper quartile is the 75<sup>th</sup> percentile, meaning that 75% of the scores are below this point. The lower quartile is the 25<sup>th</sup> percentile, meaning 25% of the scores are below the point. The quartile deviation is derived by subtracting the lower quartile from the upper quartile and dividing the result by two. A small quartile deviation indicates the data are close together, whereas a larger quartile deviation verifies the data are more spread out. The quartile deviation is a more stable measurement of variability than the range. Standard deviation is used to find out how far each data point is from the mean. The standard deviation is a measure of variability and takes into account each and every data point.

The consensus level of an item in a Delphi study can be determined by using the range, the quartile deviation, and the standard deviation, respectively. Although the changing of standard deviation and range between successive Delphi rounds can be an indication of a change in the consensus level, their usage has been limited and less frequent in a Delphi study. Delphi researchers frequently used quartile deviation as a common indication for determining consensus level. According to Scheibe et al. (1975), consensus is assumed when the quartile deviation of the group responses is less than one unit if the Likert rating is based on a ten-point scale. Wang (2000) defined that a quartile deviation equal or less than one unit on a six-point Likert rating scale is sufficient for stating that consensus has been reached. Baumann et al. (2001) ranked the level of consensus as perfect, very good, good, some, and no consensus using a self, pre-defined quartile deviation criterion. However, instead of using quartile deviation as a consensus indication, Maloney (1991) defined that a standard deviation less than one unit on a seven-point Likert rating scale is considered to have reached consensus.

In this Delphi study, which utilized a five-point Likert rating scale, the consensus level for importance rating of the key components was defined as follows: 1) an interquartile deviation of a key component that is equal to zero was defined as achieved high consensus; 2) an interquartile deviation of a key component that is greater than zero but is less than or equal to 0.50 was defined as achieved moderate consensus; 3) an interquartile deviation of a key component that is greater than 0.50 but is less than or equal to 1.00 was defined as achieved low consensus; and 4) an interquartile deviation of a key component that is greater than 1.00 was defined as did not achieved consensus.

### 3.10. Stability Determination

The Likert rating of items in a Delphi study is no less important considering that there may be a strong natural tendency on items not able to reach consensus but to reach more than two peak distribution of votes (Scheibe et al., 1975). In this case, a measurement which takes into account variations is the stability of the respondents' vote over successive rounds of the Delphi. The percentage of panel members in the group who change their rating on a certain item between successive Delphi rounds can be calculated as an indication of equilibrium. According to Scheibe et al. (1975), any two successive Delphi rounds that show changes of less than 15% may be said to have reached stability on a certain item; any two successive Delphi rounds with more than 15% change should be included in later rounds of the Delphi for further voting since they have not come to the equilibrium position. In this current Delphi study, the researchers deemed that it is not necessary to determine the stability of an item that already reached consensus. However, if the consensus of an item was not reached at the end of the third round, the item's stability level was calculated.

### 3.11. Development of the Research Instrument

#### 3.11.1. First Round Research Instrument

In the first round, the contributory round, the panel members were asked: “in your opinion, what are the key components U.S. agricultural companies should consider when

entering the Chinese market?" The following experiences and resources were utilized in the development of the key words for thought provokers:

- 1) The researcher's personal consulting experiences with a U.S. agricultural business who was actively seeking business development in China during June 2006 to December 2007;
- 2) Resources from the researcher's informal personal interviews with U.S. agriculture company representatives during expositions and conferences;
- 3) The related literatures and research studies.

The researcher's personal consulting experience with a U.S. agricultural company that was actively pursuing business partnership development in China revealed a need for an increased understanding of having good networks, conducting effective communication, building mutual trust, and hiring appropriate employees in establishing an international business partnership. This was demonstrated by the company's action of sending unprepared expatriate staff overseas for its business development project in China. Foreign companies, without question, must depend heavily on expatriate staff for their China-based operations because they are bringing to China their foreign technology, foreign management styles, and foreign economic and financial philosophy. Choosing an expatriate who is not prepared to work in the Chinese language and culture can be disastrous both to the individual employee and to the company.

After numerous interactions with U.S. agricultural business representatives during international agriculture industry expositions and conferences, the researcher learned that there are significant interests but lack of experiences in developing Chinese markets

among many U.S. agricultural companies. However, little individual business and management information is being exchanged among companies regarding strategies for international business development. Therefore there is a need for staff with expertise in international business development. Particularly, this need is anticipated to grow as markets become more global in the future. Furthermore, the researcher's experience with several U.S. agricultural businesses revealed successful examples of promoting bilingual and bicultural professional management employees of Chinese heritage who are growing up in China and with education from universities in Western countries.

In light of business development in a foreign country, previous studies indicated some important issues to be considered are the differences in languages, culture, and business practice between countries (Agarwal, 2002). Furthermore, Chinese political and social structures as well as the macroeconomic horizons are also fundamental challenges when evaluating a Chinese business development strategy for a U.S. business organization (Meuschke & Gribbons, 2003). Most importantly, a lack of qualified international employees, who are able to handle the tremendous differences in culture and language, has always been a major challenge to international business development for U.S. companies (Agarwal, 2002; Cui, 1998; Graham & Lam, 2003). Agarwal (2002) and Meuschke and Gribbons (2003) also recommended that evaluating and understanding specific challenges when entering and operating in China are the first steps to develop a strategy that fits a particular company's overall goals.

Overall, the key words for thought provokers for potential key components utilized in the first round of the Delphi study were developed using the previously available literature, the researcher's personal consulting experiences with a U.S.

agricultural company, and the informal personal interviews during industry gatherings with U.S. agricultural company representatives. Therefore, the key words, such as a familiarity with language, knowledge about business culture, having good networks, conducting effective communication, building mutual trust, and hiring appropriate employees, were provided as thought provokers for potential key components in the initial contributory round. Following development of the initial draft, a review of the survey questionnaire draft with outside experts was conducted. The survey questionnaire draft was revised based upon the feedback from the outside experts.

The final first round survey questionnaire was a mix of open-ended and close-ended questions. The demographic and other background information of the participants and their organizations were included in the first round survey questionnaire. Once the changes and improvements to the draft survey questionnaire were made and approved by the researcher's graduate committee members and university IRB, the survey questions were placed online and participants were notified of its availability. The purpose of the first round survey was to generate key components for development of an effective china business by U.S. agriculture companies. See Appendix B and Appendix C for examples of the cover letter and survey questions that were utilized in the first round of this study.

### 3.11.2. Second Round Research Instrument

The responses from the first question on the survey questionnaire in the first round were coded into themes and categories. The coding process was conducted by reading each of the questionnaire documents and attributing a code to the sentences,

paragraphs, or sections. The theme or category was constantly revisited after initial coding, until it was clear that no new themes were emerging. These themes or categories were used to generate statements. The statements were edited to a manageable summary of items which are identified as the key components for the development of an effective Chinese business partnership by U.S. agricultural companies. These key components became the basis of the surveys utilized in second and third rounds. Those key components were prepared for the second and third round survey questionnaires. Following development of the initial draft of the second survey questionnaire, a review with outside experts was conducted again. The key components in the survey questionnaire were revised based upon the feedback from the outside experts. Once the changes and improvements to the draft survey questionnaire were made and approved by the researcher's graduate committee members and university IRB, the survey questions were placed online and participants were notified of its availability. The final second round survey questionnaire included nine groups of key components. The purpose of the second round survey was to rate the importance of the key components based on a five-point Likert rating scale (Unimportant (1), Slightly Important (2), Moderately Important (3), Very Important (4), and Essential (5)). Additional space was provided to the panel at the end of each section for any additional key components and/or comments. Appendix D and Appendix E are examples of cover letter and survey questions that were utilized in the second round of this study.



### 3.11.3. Third Round Research Instrument

The third round survey contained part I and part II. Part I of the third round asked the panel to re-rate the importance of the key components based on a five-point Likert rating scale (Unimportant (1), Slightly Important (2), Moderately Important (3), Very Important (4), and Essential (5)). In addition to the same key components that were used in the second round, this part of the third round research instrument also included the additional key components recommended by the panel from the second round survey. A similar approach used in the development of the key components in the second round was used to generate the additional key components. Therefore, part I of the third round survey questionnaire included nine groups of key components. Additional space was provided to the panel at the end of each section for any justifications why his/her rating for the third round was not the most frequent response. Part II of the third survey questionnaire asked the panel to rate the importance of training, using the same five-point Likert rating scale, for each of the previously listed nine groups key components (part I) for U.S. agricultural companies when entering the Chinese market. Additional space was also provided to the panel at the end of part II for any additional training topic(s) that should be included. Following development of the initial draft, a review of the survey questionnaire draft with outside experts was conducted again. Once the changes and improvements to the draft survey questionnaire were made and approved by the researcher's graduate committee members and university IRB, the survey questions were placed online and participants were notified of its availability. Appendix F and Appendix G are examples of the cover letter and survey questions that were utilized in the third round of this study.

### 3.12. Survey Instrument Validity

Once the changes and improvements to the draft survey questionnaire were made and approved by the researcher's graduate committee members, validating the survey questions with outside experts was conducted. The validation process was conducted to assess and refine the initial survey questionnaires.

Three experts in the U.S., two business educators teaching international business and one industry human resource recruiting manager, were intentionally chosen to review the survey questions. The three experts were a professor from the Krannert School of Management at Purdue University, a director from the Center for International Business Education and Research (CIBER) at Purdue University, and a human resource manager from a U.S. company. In order to make sure the survey questions could be easily understood by panel members both from eastern and western cultural background, the ethnic backgrounds of the three experts were intentionally chosen to be a mix of Caucasian/White and Chinese heritage, with one expert being bi-lingual in Chinese and English. The survey instruments were validated by the three experts. Additionally, a faculty member in the College of Consumer and Family Sciences at Purdue University with expertise in Likert scale survey development was included to review the second round survey instrument. Face-to-face meetings were conducted with each of the above individual experts. An explanation of the research methods and goals along with the survey instrument drafts were presented to the reviewing experts during the meetings.

The validation process was to help the researcher assess and refine the survey questions and make them as meaningful as possible. Survey instruments were refined using feedback from the experts. After receiving comments and suggestions, changes

and improvements to the survey questionnaire were made. The refined survey instruments were ultimately used in this Delphi study. The purposes of reviewing the survey instrument were to:

- 1) Validate the survey questions;
- 2) Clarify the intended message and their wording;
- 3) Make sense of the questions both in Chinese and English language settings;
- 4) Add or delete questions;
- 5) Adjust numbers of open-ended and closed-ended questions based on the assumed limited time of the panel available to answer the surveys;
- 6) Make survey layout reader-friendly.

Once the changes and improvements to the draft survey questionnaire were made and approved by the researcher's graduate committee members and university IRB, the survey questions were placed online. The researchers tested each survey online before participants were notified of its availability.

### 3.13. Web-Based Delphi Survey

Web-based survey is increasingly popular and more and more researchers are encouraging participants to complete survey instruments that have been published online for communication and time efficiency (Brill et al., 2006; Dillman, 2007; Schleyer & Forrest, 2000; Zhang, 2000). Web-based survey reduces return time and cost compared with mailed surveys and may enhance survey item completion rates (Schleyer & Forrest,

2000). There are many other benefits associated with utilizing web-based surveys. According to Dillman (2007), the web-based survey: 1) minimizes paper usage; 2) decreases postage costs; 3) eliminates data re-entry by the researchers; 4) overcomes the physical distance between the researchers and participants; and 5) reduces the survey return time from weeks to days, or even hours. Therefore, for the benefits mentioned above, this study utilized the web-based survey format and chose to administer all of the Delphi surveys via the World Wide Web (WWW).

The survey was compiled on a Microsoft IIS 6.0 web server running Adobe ColdFusion MX 8.01 which connected to a secure FileMaker 9.0 server database to store the data. Both the web server and database server were protected by a FortiGate firewall which limits the open ports and scans incoming packets. For the security of the web survey questionnaires and data collection, the web address utilized Hypertext Transfer Protocol (HTTP) over Secure Socket Layer (SSL), or over SSL. HTTPS encrypts and decrypts the page requests and page information between the client browser (e.g. participants' browser) and the web server (e.g. the researcher's server) using a SSL.

During the study, participants were contacted via e-mail, with a web link to the appropriate survey's web site address embedded in the e-mail for easy access. An example of the web address link in this study is in the following format:

<HTTPS://WWW.YDAE.PURDUE.EDU/CHINA/Q1CFM>. The web-based survey with the identification number input and first question prefaces that were presented to survey participants in round one of this study can be found in Figure 3.1 and Figure 3.2.

The image shows a screenshot of a web browser window titled "China Survey - Windows Internet Explorer". The address bar shows the URL "https://www.ydae.purdue.edu/china/". The browser's menu bar includes "File", "Edit", "View", "Favorites", "Tools", and "Help". The browser's toolbar includes "China Survey", "Home", "Print", "Page", "Tools", and "Live Search".

The main content area of the browser displays the Purdue University logo and the text "PURDUE UNIVERSITY". Below this, the text "PURDUE AGRICULTURE" is displayed in a large, bold font. Underneath, the text "Youth Development and Agriculture Education" is displayed. The main content area contains the following text:

**Research Topic: An Educational Analysis of China Business Development Strategies by United States Agricultural Companies: a Delphi Study**

**First Round Survey Questionnaire**

*(You can be assured that all data, including your responses, and personal and organizational identities, will be kept confidential. Participation in the current research is fully voluntary and you can choose to stop your participation at any point during the study.)*

*Please answer the listed questions.*

(\*Required Fields)

ID number \*

The browser's status bar at the bottom shows "Internet" and "100%".

Figure 3.1. Round one web-based survey preface and identification number input.



Figure 3.2. Round one web-based survey preface and first question.

A phone call or face-to-face meeting was utilized to invite the panel to participate in the web-based survey. The researcher introduced the web-based survey to the participants and they showed great interest in the web-based survey method. During each round, an email, containing a web link to the online survey and an identification number, were sent to each participant. Participants were encouraged to complete and submit the survey questionnaire online through the web link included in the email. Each participant was required to use the identification number to access the web survey. The purpose and procedure of each round was clearly defined in the instructions for each survey questionnaire. The software used to create the online survey was IIS server running Adobe ColdFusion MX. The database was compiled in FileMaker 9.0.

For the design nature in a Delphi study, in order to secure a high return rate from the Delphi panel members, a PDF survey document attached to an e-mail was provided to them if they preferred. In this case, the PDF survey document was used as a supplement replacement to the web-based survey. The panel members were able to print the questionnaire and subsequently submit by mail or FAX. The same identification number appeared on the survey if any participant preferred to use a PDF survey document.

#### 3.14. First Round

The first round was conducted in July and August of 2008. The survey emails were sent out to 39 participants on July 8<sup>th</sup> and a total of 32 completed the survey by July 31<sup>th</sup>. A total of seven participants did not complete the web survey by the end of July. Five of the seven participants who did not complete the web survey by the end of July

were contacted in early August through their work phones and thus were able to complete the survey. Two of the seven participants did not complete the first round survey. One individual recently decided on a one-year overseas assignment during the research period and the other person failed to return the survey after multiple contacts. Therefore, those two panel members were removed from the second and third round surveys.

Consequently, 37 participants completed the first round survey.

It took approximately three weeks to receive all the survey responses from the panel members. A total of 37 participants responded in the first round. Each of the participants that completed this round received a thank you email as soon as the researcher received their returned survey response.

During the first round, each panel member received an email that containing the following: (1) a cover letter for participation which explained the procedure being used in the Delphi study and assured confidentiality; (2) a web link with an identification number to access the online questionnaire; (3) the estimated time to complete the survey; and (4) the due date for return the survey. The participants were asked to return the first round online survey no later than two weeks from when the email was sent. A second short reminder email message containing the web link and identification number to access the online questionnaire was sent to those participants who did not complete the survey a day before the due date. Another reminder email message was repeated weekly to the participants that did not complete the survey by the due date with an indication that the due date was extended and the web survey was still available to answer in an extended period. The goal of the researcher was to get as many responses as possible.



During the first round, only the online-based version of the survey was provided initially at the request of the participants. It should be noted that of the 32 participants who responded by July 31<sup>th</sup>, two participants indicated the web link did not work or the participants' web server blocked the site for unknown reasons. Therefore, a PDF survey document was sent as an email attachment to the participants separately and a postal mail or FAX return of the survey was requested. The two participants who received PDF surveys used FAX to return their first round survey.

The first round data analysis was carried out from the end of July to the end of August. The answers to the first open-ended question on the survey questionnaire in the first round were coded into themes and categories. The coding process was conducted by reading each of the questionnaire documents and attributing a code to the sentences, paragraphs, or sections. These themes or categories were associated were used to generate statements. The statements were edited to a manageable summary of items which were identified as the key components for the development of effective China market by the U.S. agricultural companies. The key components also were sub-grouped into nine groups. Those key components were prepared for the questionnaire for the subsequent Delphi rounds. Once the changes and improvements to the draft survey questionnaire were made and approved by the researcher's graduate committee members, validating the survey questions with outside experts was conducted. The validation process was conducted to assess and refine the initial survey questionnaires.

The demographic and other background information of the participants and their organizations in the first round survey questionnaire were summarized.

The first round action steps are defined below.

- 1) Develop research questionnaire for the first round, which includes open-ended and close-ended questions;
- 2) Conduct the first round survey;
- 3) Collect and analyze data;
- 4) Summarize and report findings;
- 5) Generate key components for development of an effective China market by U.S. agricultural companies.

### 3.15. Second Round

The second round was conducted from early September to early October of 2008. The email announcing availability of the survey was sent on September 4<sup>th</sup> to all 37 participants who completed the first round. The last response from the participants was received on September 26<sup>th</sup>. Three of the 37 participants failed to return the second round survey after multiple contacts. Therefore, 34 panel members completed the second round survey. Each participant who completed this round received a thank you email as soon as the researcher received their second round survey response. It took approximately three weeks to receive all second survey responses from the panel. The second round data analysis was carried out from late September to early October.

During the second round, each panel member received an email that contained the following: (1) a cover letter which explained the procedure being used in the second round; (2) a web link with an identification number to access the online questionnaire, or

if they preferred, an attached second round survey in PDF format; (3) the estimated time to finish the survey; and (4) the due date for return the survey. The participants were asked to return the second round survey no later than two weeks from when the initial email was sent. A short email reminder message containing the web link and identification number to access the online questionnaire was sent to participants that failed to complete the survey a day before the due date. The same email reminder message was repeated weekly to the participants that did not complete the survey by the due date with an indication that the due date had been extended and the survey was still available.

During the second round, the online-based survey was provided to all the participants. Two of the participants who indicated the web link did not work in the first round also received a PDF survey document as an email attachment. However, one of the two participants indicated that he was able to use the online-based survey for the second round. Therefore, only one participant returned the second round survey via FAX.

Panel members were asked to rate the importance for each key component using a five-point Likert rating scale: Unimportant (1), Slightly Important (2), Moderately Important (3), Very Important (4), and Essential (5). Additional space was provided at the end of each section for additional key components and/or comments.

All data from the returned questionnaires were summarized. The mean, median, mode, standard deviation, first quartile, third quartile, and interquartile deviation of the importance of each key component were computed. New key components added by individual panelists, if any, were classified into existing categories and when this was not

feasible new categories were created for subsequent rounds. For each key component, the percentage of respondents by Likert category were recorded and used as an indication of the group response distribution. The individual panelist's votes on each key component were recorded and marked so that each respective panelist could compare his/her previous responses with the group's responses during the third round. The third round survey questionnaire was developed based on the results of the second round. Once the changes and improvements to the draft survey questionnaire were made and approved by the researcher's graduate committee members and university IRB, the survey questions were placed online and participants were notified of the opportunity to complete the survey.

The second round action steps are defined below.

- 1) Develop research questionnaire for the second round, which included a Likert survey scale (1-5) for importance rating;
- 2) Conduct second round survey;
- 3) Collect and analyze data;
- 4) Summarize and report findings.

### 3.16. Third Round

The third round was conducted from early October to early December 2008. The initial email was sent on October 9<sup>th</sup> to all 34 participants who completed the second round. The last response was received on December 10<sup>th</sup>. Therefore, 34 panel members completed the third round survey. Each of the participants that completed this round

received a thank you email upon receipt of their third round survey response. It took approximately one month to receive all third survey responses from the panel. The third round data analysis was conducted from the middle of December 2008 to the end of January 2009.

During the third round, each panel member who completed the second round survey received an email that contained the following: (1) a cover letter which explained the procedure being used in the third round; (2) a web link with an identification number to access the online questionnaire for the third round, or if they preferred, an attached third round survey in PDF format; (3) the estimated time to finish the survey; and (4) the due date for return the survey. Participants were asked to return the third round survey no later than two weeks from when the email was sent. One day prior to the due date, a short reminder email message containing the web link and identification number to access the online questionnaire was sent to the participants that had not completed the survey. The same email reminder message was repeated to the participants that did not complete the survey by the due date with an indication that the due date had been extended and the survey was still available.

During the third round, the online-based survey was provided to all participants. The participant who returned the survey as a FAX document in the second round received a PDF survey document as an email attachment. Therefore, only one participant used FAX to return the third round survey.

The third round survey contained part I and part II. Part I of the third round asked the panel to re-rate the importance of the key components using a five-point Likert rating scale (Unimportant (1), Slightly Important (2), Moderately Important (3), Very Important

(4), and Essential (5)). Additional space was provided at the end of each group for participant to justify their response if his/her rating for the third round was not the most frequent response. Part II of the third survey questionnaire asked the panel to rate the importance of training for U.S. agricultural companies when entering the Chinese market, using the same five-point Likert rating scale in part I, of the previously listed key component groups (part I). Additional space was provided at the end of part II for any additional training topic(s) which are important for the development of effective China markets by the U.S. agriculture companies. Once the changes and improvements to the draft survey questionnaire were made and approved by the researcher's graduate committee members and university IRB, the survey questions were placed online and participants were notified of the opportunity to answer the survey.

All data from the returned questionnaires were summarized. The mean, median, mode, standard deviation, first quartile, third quartile, and interquartile deviation of the importance of each key component and potential training topic were computed. The reason(s) for not being the most frequent response and additional training topic(s) were summarized.

For each key component, the percentage of respondents by Likert category were calculated and used as an indication of the group response distribution. The consensus level for the third round, as well as the stability of panel members' responses between second round and third round, were calculated according to procedures prescribed by Scheibe et al. (1975).

The third round action steps are defined below.

- 1) Utilize feedback obtained in the second round to develop the third round research questionnaire, which included a Likert survey scale (1-5) for importance rating;
- 2) Conduct third round survey;
- 3) Collect and analyze data;
- 4) Summarize and report findings.

At the end of the round, a gift and a thank you note were mailed to the participants who completed all three rounds in appreciation for their participation. Appendix H is an example of the thank you note.

### 3.17. Data Analysis

In the first round, the data obtained from the open-ended questions during the generation of the key components were summarized and coded into themes and categories. The coding process was conducted by reading each of the questionnaire documents and attributing a code to the sentences or paragraphs. These codes represented a theme or categories with which each part of the data was associated.

The codes from the first round were analyzed using the constant comparative method to categorize responses into characteristics and thereafter to generate the concise statements which then become the key components (Glaser, 1965; Glaser & Strauss, 1967). The constant comparative method was the method used for analyzing the open-

ended questions where the qualitative data gathered were coded into emergent themes or codes to determine if they should be put into the same existing category or if additional categories should be developed. Each category was constantly revisited after initial coding until it was clear that no new themes were emerging. The categories or themes were utilized to develop concise statements that contained the same meanings as the original sentences or paragraphs from the panelists. Care was taken to make sure the statements retained the key words or meanings of the categories or themes. The results were edited to a manageable summary of statements which were identified as the key components for the development of effective China markets by U.S. agricultural companies. The key components were sub-grouped into nine groups in the second and third rounds.

Data triangulation was conducted using an additional researcher skilled in the qualitative coding process. This qualitative researcher is an expert in Chinese studies at Purdue University and has been traveling to China for more than 10 years providing educational training for K-12 and university level teachers in China, focusing on cultural and social science studies as well as economic and entrepreneurial education. He is currently President-Elect of Global Indiana: The Consortium for International Exchange, a non-profit organization that fosters international educational exchanges.

Member checking described by Lincoln and Guba (1985) was applied to assess data trustworthiness. Face-to-face meetings, phone calls, and emails were utilized to check with panel members for clarifications of words and meanings.

During member checking, the researchers shared interpretations of the data with participants to eliminate miscommunication, identify inaccuracies, and help obtain



additional useful data. The member checking process allowed the participants to review and critique the researchers' interpretations of the returned questionnaire for accuracy and meaning.

The same qualitative analysis method discussed above was utilized to generate the additional key components in the second round of this study. For the second and third rounds, members of the panel were asked to rate the importance of each generated key component. The importance of each key component was based on a five-point Likert rating scale: Unimportant (1), Slightly Important (2), Moderately Important (3), Very Important (4), and Essential (5). The mean, median, mode, standard deviation, first quartile, third quartile, and interquartile deviation of the importance of each key component were computed. The percentage of panel members who changed their rating on each key component between the second and third round was calculated. The consensus level of the importance rating of the key components and the stability of the importance rating of the panel member's responses were determined according to the method described by Scheibe et al. (1975). The consensus level of the importance rating of the key components in the second and third rounds was determined by the interquartile deviation. The stability of the importance rating of the panel members' responses between the second and third rounds was determined by the percentage of panel members who changed their rating.

During the third round, the panel members were asked to evaluate the training needs based on the grouped key components that were generated in this study. The same panel members were asked to rate the importance of the grouped key components. The

mean, median, mode, standard deviation, first quartile, third quartile, and interquartile deviation of the importance of training topics were computed.

In this study, the consensus level of the importance rating of the key components and training topics were based on their interquartile deviation from the third round. The consensus level for importance rating of the key components and training topics was defined as follows: 1) an interquartile deviation that is equal to zero was defined as achieved high consensus; 2) an interquartile deviation that is greater than zero but is less than or equal to 0.50 was defined as achieved moderate consensus; 3) an interquartile deviation that is greater than 0.50 but is less than or equal to 1.00 was defined as achieved low consensus; and 4) an interquartile deviation that is greater than 1.00 was defined as did not achieved consensus.

The importance of the key components and training topics was based on their median scores from the third round. The importance level was defined as: Unimportant (1.00), Slightly Important (1.50 or 2.00), Moderately Important (2.50 or 3.00), Very Important (3.50 or 4.00), and Essential (4.50 or 5.00). Essential was defined as a necessary training topic for U.S. agricultural companies when entering the Chinese market.

Interquartile deviation of the key components and training topics were calculated in Microsoft Office Excel (2003). Descriptive statistics such as mean, median, mode, standard deviation, and percentage of the key components and training topics were calculated in SPSS 16.0 (2007).

Mean comparison of the grouped key components and training topics in the third round were analyzed using the one-way ANOVA in SPSS 16.0 (2007). Mean and standard deviation were presented.

Mean difference of the key components and training topics in the third round between the Chinese and Non-Chinese panel members were analyzed using the independent samples t-test in SPSS 16.0 (2007). Levene's test for equality of variances was applied to the data if necessary. Mean differences were considered significant at  $p < 0.05$ .

## CHAPTER 4. FINDINGS

Chapter 4 includes three main parts. The first part contains the overall demographic and background information of panel members. The second part contains the key components and their consensus and importance levels. The third part contains the training topics and their consensus and importance levels. This chapter is organized as follows:

- 1) Demographic and background information of panel members
- 2) Key components that U.S. agricultural companies should consider when entering the Chinese market
  - a. Key components generated in first round
  - b. Additional key components generated in second round
  - c. Consensus and importance of key components in the second and third rounds
  - d. Reasons for importance rating not being the most frequent response in third round
- 3) Training topics that U.S. agricultural companies should consider when entering the Chinese market
  - a. Training suggestions recommended by the panel members in first round
  - b. Consensus and importance of training topics in third round
  - c. Additional training suggestions recommended by the panel members in the third round

#### 4.1. Demographic and Background Information of Panel Members

##### 4.1.1. Ethnic Background of Panel Members

Although it was designed to include panel members with many ethnic backgrounds as possible, the panel members in this study were only of Caucasian/White or Chinese. Therefore, for the data presentation throughout this dissertation, “Non-Chinese” was used to refer to “Caucasian/White”. The Chinese heritage all spoke English as their first or second language. Some of the Chinese were born in the U.S. and some were born in China but all completed their higher education in the U.S. All panel members were currently working in U.S. organizations.

As noted before, 37 professionals completed the first round survey and 34 people completed the second and third round surveys. At the beginning of the study, approximately one-third of the total panel members were Chinese and two-third were Non-Chinese. The ethnic background of the panel members in this study is listed in Table 4.1.

Table 4.1

*Ethnic Background of Panel Members*

Ethnic background	Panel members			
	First round		Second/Third rounds	
	Number	%	Number	%
Chinese	13	35%	13	38%
Non-Chinese	24	65%	21	62%
Total	37	100%	34	100%

#### 4.1.2. Educational Background of Panel Members

In this study, almost 70% of the panel members had received a master's or doctoral degree. One panel member had not received a bachelor's degree but had completed some coursework toward a bachelor's degree. Also, one of the panel members with a bachelor's degree had completed a business executive education program. The educational attainment of panel members is shown in Table 4.2.

Table 4.2  
*Educational Background of Panel Members*

Educational background	Panel members			
	First round		Second/Third rounds	
	Number	%	Number	%
Doctorate	19	51%	18	53%
Master's degree	6	16%	6	18%
Bachelor's degree	10	27%	8	23%
Bachelor's coursework	1	3%	1	3%
Unknown	1	3%	1	3%
Total	37	100%	34	100%

#### 4.1.3. Type of Employer of Panel Members

The panel members were U.S. agricultural business experts who understood the research topic and had international agriculture business experience. The panel members were purposefully selected to represent the agricultural industry, government, and higher education sectors. All panel members were currently conducting, regulating, or consulting with an U.S. agricultural business that either had a Chinese business operation or was interested in creating a Chinese business. The employer type of panel members is listed in Table 4.3.

Table 4.3  
*Type of Employer of Panel Members*

Employer type	Panel members			
	First round		Second/Third rounds	
	Number	%	Number	%
Industry	28	75%	26	76%
Higher education	5	14%	4	12%
Government	4	11%	4	12%
Total	37	100%	34	100%

#### 4.1.4. Professional Positions and Responsibilities of Panel Members

The panel members from industry were mainly focusing on corporate human resources management, international business development, global research and development, regulatory, market and product strategy development, technical services and consulting, distribution for the product line in the Asia/Pacific, sales and exporting to China, Chinese market development, and China business supervision and providing training to company personnel.

The job title of panel members associated with agricultural industries is listed in Table 4.4. Panel members from industry included:

- 1) Company owners, presidents, or vice presidents of international business;
- 2) Departmental directors of international business;
- 3) Departmental managers of businesses in China;
- 4) Chinese business development program leaders.



Table 4.4  
*Job Title of Panel Members from Industries*

Job title	Panel members			
	First round		Second/Third rounds	
	Number	%	Number	%
Owner/chairman, president/vice president	15	54%	15	58%
Director	5	18%	5	19%
Manager	6	21%	4	15%
Program leader	2	7%	2	8%
Total	28	100%	26	100%

The panel members from government were mainly focusing on international trade research and agricultural trade policy, market and policy analysis, government strategic planning, attraction of international investment to the U.S., business and legislative relations, animal production systems, and liaison between USDA/CSREES, animal industries, universities, and professional and non-governmental organizations. The panel members from government included:

- 1) A Deputy Secretary of a State Department of Food and Agriculture, who was a former Director of Trade for that State's Department of Food and Agriculture, and also a former USDA agricultural economist;

- 2) A National Program Leader with the USDA Cooperative State Research, Education, and Extension Service, who had previously worked with the USDA Foreign Agricultural Service and with the U.S. Feed Grains Council on an extension project in Tianjin, China;
- 3) A Director of International Development for a State's Economic Development Corporation;
- 4) An assistant Director of International Trade and Corporate Development in a State's Department of Agriculture.

The panel members from higher education were mainly focused on international business education programs or international agricultural industry consulting programs in China. One was associated with a global non-profit organization that was providing educational training for K-12 and university level teachers in China and focusing on Chinese economic and entrepreneurial education. Overall, the university professors and researchers were consulting with U.S. agricultural organizations and with the animal industries in China. The panel members from higher education included:

- 1) A department head and professor of economic education;
- 2) A professor and director of graduate economic education;
- 3) Two professors in agricultural teaching, research, and extension with experience in agricultural technology transfer education in China;
- 4) The president-elect of a global non-profit organization with experience in economic and entrepreneurial education in China.

#### 4.1.5. Business Status in China of Panel Members' Organizations

Of the 28 panel members that associated with agricultural industries, 27 were from companies that had a business presence in China and the other one was from a company that did not have a business presence in China. Twenty-four of the 27 panel members whose companies had a business presence in China stated their businesses were successful. The remaining three panel members stated the China-portion of their businesses was unsuccessful. Panel members from those three companies stated that their company will continue efforts to establish a successful business in China. Additionally, the owner of the company that had no previous business in China stated that his company planned to establish a business presence in China. The previous or current business presence in China of the panel members' company is listed in Table 4.5.

Table 4.5  
*Company Business Presence in China*

Item	Number of panel members	
	First round	Second/Third rounds
Previously had or currently has business in China	27	25
“No” business in China	1	1
Total	28	26

#### 4.1.6. Previous Travel Experience in China of Panel Members

The panel members were asked, “Have you been to mainland China, Hong Kong, Macau, or Taiwan?” Thirty-five panel members said “yes;” and two said “no.”

The number of visit(s) the panel members had made to mainland China, Hong Kong, Macau, or Taiwan is listed in Table 4.6. The responses varied from one visit to having lived in and received a college education in mainland China. Three of the panel members stated that they had been to mainland China, Hong Kong, Macau, or Taiwan many times but could not recall the exact number. Nine of the Chinese panel members had grown-up and attended college in mainland China, and one of them is currently staying in China and working for a U.S. company. Another one of the Chinese panel members had grown-up and attended college in Taiwan and is currently staying in China and working with a U.S. joint-venture company. A Non-Chinese panel member stated that he had spent more than 400 days in China in the past 10 years. The rest of the panel members reported that they had been to mainland China, Hong Kong, Macau, or Taiwan from one time to 100 times.

Table 4.6

*Total Visit(s) That Panel Members Had Made to Mainland China, Hong Kong, Macau, or Taiwan*

Total visit(s)	Number of panel members
Grew up and were college educated in mainland China	9
Grew up and were college educated in Taiwan and are currently working in mainland China	1
Spent more than 400 days in China in past 10 years	1
100	1
40	1
>30	1
30	1
25	1
20	1
15	3
12	1
>10	2
9	1
>8	1
6	2
3	2
1	3
Many times but could not recall the exact number	3
Total	35

#### 4.1.7. Region of Panel Members and Their Organizations

The panel members belonged to companies and organizations based in 17 U.S. locations. Those U.S. locations are listed in Table 4.7.

Table 4.7

*Locations in the U.S. of the Panel Members and/or Their Company/Organization Headquarters*

State	Number of company/organization
Arkansas	1
California	1
Colorado	1
Kentucky	1
Hawaii	1
Illinois	5
Indiana	11
Iowa	1
Maryland	1
Minnesota	2
Missouri	5
Nebraska	2
Oklahoma	1
Tennessee	1
Virginia	1
Washington DC	1
Wisconsin	1
Total	37

#### 4.1.8. Product Focus of Panel Members and Their Organizations

Several panel members were from companies associated with biotechnology, equipment, livestock, and feed or premix. The feed or premix category included feed additives businesses. Some agricultural consulting companies, product distributors, and food companies were also represented. The panel members from federal and state government agencies and universities were mainly providing foreign business service, trade and government business relations training, and education and research. The primary products of the panel members' companies/organization are listed in Table 4.8.

Table 4.8

*Primary Product Focus of Panel Members' Company/Organization*

Product focus	Number of panel members
Biotechnology	3
Equipment	5
Livestock	5
Feed or premix	14
Food ingredients	1
Education and government service	9
Total	37

#### 4.1.9. Activity Focus of Panel Members and Their Organizations

It should be noted that all the panel members from federal and state government agencies and universities were classified as consultants. Among those consultants, some were helping arrange China/U.S. business partnerships while others were helping arrange China/U.S. educational partnerships. The primary activity focus of panel members' organizations is listed in Table 4.9.

Table 4.9

*Primary Activity Focus of Organizations*

Activity	Number of panel members
Consultant	12
Distributor	5
Producer or manufacturer	20
Total	37



#### 4.1.10. Animal Focus of Panel Members and Their Organizations

Most companies listed beef/dairy, poultry, or swine as their animal focus. One company also listed aquaculture and pets as their second animal focus. It also should be noted that one equipment company was actually dealing directly with grain storage, but not with any animal species. The primary animal focus of panel members' organizations is listed in Table 4.10.

Table 4.10

*Primary Animal Focus of Panel Members' Organizations*

Type of animal	Number of panel members
Beef/Dairy	11
Poultry	12
Swine	19
Aquaculture	1
Pet	1

*Note.* Some organizations dealt with more than one type of animal.

#### 4.1.11. Company Size of Panel Members and Their Organizations

Three of the 28 companies did not provide information on their annual sales.

Almost half of the companies, 13 of the 28 companies, have annual sales equal or greater than 500 million U.S. dollars. The annual sales of the companies represented are listed in Table 4.11.

Table 4.11

*Annual Sales of the Companies*

Annual sales	Number of companies
\$500 million and above	13
\$200 million < \$500 million	2
\$100 million < \$200 million	1
\$50 million < \$100 million	0
\$10 million < \$50 million	5
\$1 million < \$10 million	2
Less than \$1 million	2
Total	25

*Note.* Three panel members did not respond to this question.

## 4.2. Key Components That U.S. Agricultural Companies Should Consider When Entering the Chinese Market

### 4.2.1. Key Components Generated in First Round

During the first round, the panel generated 50 key components that U.S. agricultural companies should consider when entering the Chinese market. These key components were classified into 17 categories (Table 4.12): language, culture, ethics, trust, human resources, wages (labor costs), networks, partnerships, university relationships, Chinese business practices, raw materials/infrastructure/facilities, product advantages, customer service, Chinese markets, political/economic climate, legal counsel, and intellectual property.

The 17 categories were then combined into nine groups in the second round survey instrument: language and culture, ethics and trust, human resources and labor costs in China, networks and partnerships in China, Chinese business practices, product advantages and customer service, Chinese markets, political and economic climate in China, and legal counsel and intellectual property in China. The second round survey instrument is presented in Appendix E.

Table 4.12

*Categories and Key Components Generated in the First Round*

---

***Language***

- 1) Have key employees in China be able to speak and understand both Chinese and English.
- 2) Have key U.S. based international employees gain a basic level of knowledge of Chinese language.

***Culture***

- 1) Recognize that Chinese culture is different from that of the U.S.
- 2) Have knowledge of the way Chinese culture affects business transactions.
- 3) Hire employees that demonstrate an understanding and appreciation of both the U.S. and Chinese culture.

***Ethics***

- 1) Understand that Chinese definitions of personal ethics may be different from that in the U.S.

***Trust***

- 1) Be honest and reliable in order to build mutual trust.
- 2) Build trust in U.S. company and its products.
- 3) Develop a strong trusting relationship with the company you are planning to do business with.

***Human resources***

- 1) Hire Chinese Nationals that have education/training experience in the U.S. as key employees.
- 2) Know the background of your Chinese employees.
- 3) Have a strong Chinese management team in China.
- 4) Utilize interpreters or consultants.

***Wages (labor costs)***

- 1) Understand that entering the Chinese marketplace should be for reasons beyond wage differentials between the U.S. and China.
  - 2) Understand that the Chinese labor cost for manager-type employees is rising quickly and the differential with the U.S. is closing rapidly.
-

Table 4.12 (continued)

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***Networks (connections)***

- 1) Understand how connections are formed among Chinese people.
- 2) Understand the influence of networks in government, business, and industry.
- 3) Create good personal networks within appropriate business sectors.
- 4) Establish rapport with the Chinese partners.
- 5) Participate in and support Chinese professional organizations.

***Partnerships***

- 1) Understand the value of partnerships when entering the Chinese market.
- 2) Find and evaluate potential business partners in order to have trustworthy partners.
- 3) Partner with Chinese government branches.
- 4) Utilize distributors.

***University relationships***

- 1) Understand the role of experts from Chinese universities in business development.
- 2) Develop partnerships with Chinese universities in order to find potential employees.

***Chinese business practices***

- 1) Understand Chinese business “ground rules.”
- 2) Study how/why businesses and government operate the way they do before making any major decisions in China.
- 3) Have strong ties to the Chinese regulatory officials that approve the registration of the products you plan to market.
- 4) Develop long-term business goals in China.

***Raw materials, infrastructure, and facility***

- 1) Have raw materials supplied locally in China.
  - 2) Have sound infrastructures in China necessary for the establishment of proper business.
  - 3) Build facilities near customer bases and utilities.
-

Table 4.12 (continued)

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***Product advantages***

- 1) Develop product recognition in China in order to establish the brand.
- 2) Persuade Chinese people to understand the benefits of U.S. technology.
- 3) Study the difference between the current product and the proposed product to make sure the proper value is there.

***Customer service***

- 1) Provide service support for product in China.
- 2) Have U.S. based senior management visit and speak with customers in China.

***Chinese markets***

- 1) Investigate the Chinese market in order to gain an understanding of market dynamics.
- 2) Be familiar with the sources of information that provide data necessary to make business decisions.
- 3) Have a solid understanding of Chinese customers and their needs.
- 4) Find a niche that fits the U.S. company and the Chinese market.
- 5) Consider both local consumption and export potential of a product.
- 6) Understand the product pricing system in China.

***Political and economic climate***

- 1) Understand the political and economic climate in China as it applies to business development.
- 2) Be familiar with Chinese government regulations and incentives.
- 3) Understand the impact of trade barriers on business between the U.S. and China.

***Legal counsel***

- 1) Understand the Chinese legal system in order to apply to business development.
- 2) Seek help from Chinese legal experts.

***Intellectual property***

- 1) Protect intellectual property rights.
-

#### 4.2.2. Additional Key Components Generated in Second Round

During the second round, panel members were encouraged to provide additional key components. Thirteen (13) additional key components were generated from suggestions in the second round (Table 4.13). The 13 additional key components were added to the existing key component groups to create the list used for the third round survey.

Table 4.13

*Key Components That Were Generated in the Second Round*

---

***Language***

- 1) Double-check translation in order to avoid confusion or unintended messages due to language.

***Culture***

- 1) Have a company culture that fosters multiculturalism in hiring choices and daily operations.
- 2) Understand that culture can vary depending on where in China you are doing business.

***Human resources***

- 1) Hire employees that have expertise and knowledge in the science behind the products.
- 2) Create a solid educated workforce that is paid a fair wage.

***Wages (labor costs)***

- 1) Have managers with empathy for the worker's needs.

***Partnerships***

- 1) Identify the key values and common ground of partners in China.

***Chinese business practices***

- 1) Communicate effectively with people actually doing the work in China.
- 2) Have face-to-face interactions when doing business in China.

***Customer service***

- 1) Invite Chinese partners to visit your U.S. facilities.

***Political and economic climate***

- 1) Understand the expectations of the Chinese government officials.
- 2) Select the right individuals to help navigate the business climate in China.

***Legal counsel***

- 1) Have people on your payroll that are versed in Chinese and U.S. laws.
-



#### 4.2.3. Consensus and Importance of Key Components in the Second and Third Rounds

##### 4.2.3.1. Central Tendency and Convergence Measures of the Key Components in the Second Round and Third Round

As noted before, during the first round the panel generated 50 key components that U.S. agricultural companies should consider when entering the Chinese market. During the second round, the panel generated an additional 13 key components. Therefore, at the conclusion of this Delphi study, the panel had generated a total of 63 key components that U.S. agricultural companies should consider when entering the Chinese market. These key components were divided into nine groups: ethics and trust, language and culture, Chinese markets, political and economic climate in China, product advantages and customer service, human resources and labor costs in China, networks and partnerships in China, Chinese business practices, and legal counsel and intellectual property in China. A five-point Likert scale of importance rating for each key component was administered to the panel members during the second and third rounds. The descriptive statistics for these importance ratings are reported in Appendix I.

##### 4.2.3.2. Consensus Levels of the Key Components in Second and Third Rounds

In this Delphi study, the consensus level for importance rating of the key components was defined as follows: 1) an interquartile deviation of a key component that is equal to zero was defined as achieved high consensus; 2) an interquartile deviation of a key component that is greater than zero but is less than or equal to 0.50 was defined as achieved moderate consensus; 3) an interquartile deviation of a key component that is

greater than 0.50 but is less than or equal to 1.00 was defined as achieved low consensus; and 4) an interquartile deviation of a key component that is greater than 1.00 was defined as did not achieved consensus. A summary of the interquartile deviation of the importance rating of the key components in the second round and third round is listed in Table 4.14.

Table 4.14

*Key Components and Their Consensus and Importance Level in the Second Round and Third Round*

Key components	Interquartile deviation		Consensus	Median		Importance
	Round 2	Round 3		Round 2	Round 3	
<i>A. Ethics and trust:</i>						
1) Develop a strong trusting relationship with the company you are planning to do business with.	0.5	0	High consensus	5	5	Essential
2) Be honest and reliable in order to build mutual trust.	0.38	0	High consensus	5	5	Essential
3) Build trust in U.S. company and its products.	0.5	0	High consensus	5	5	Essential
4) Understand that Chinese definitions of personal ethics may be different from that in the U.S.	0.5	0.38	Moderate consensus	4.5	5	Essential
<i>B. Language and culture:</i>						
1) Recognize that Chinese culture is different from that of the U.S.	0.5	0	High consensus	5	5	Essential
2) Have knowledge of the way Chinese culture affects business transactions.	0.5	0	High consensus	4.5	5	Essential
3) Have key employees in China be able to speak and understand both Chinese and English.	0.5	0	High consensus	5	5	Essential

Table 4.14 (continued)

Key components	Interquartile deviation		Consensus	Median		Importance
	Round 2	Round 3		Round 2	Round 3	
4) Hire employees that demonstrate an understanding and appreciation of both the U.S. and Chinese culture.	0.5	0.5	Moderate consensus	4	4	Very important
5) # Double-check translation in order to avoid lost meanings or unintended messages due to language.	-	0.5	Moderate consensus	-	4	Very important
6) # Understand that culture can vary depending on where in China you are doing business.	-	0.5	Moderate consensus	-	4	Very important
7) # Have a company culture that fosters multiculturalism in hiring choices and daily operations.	-	0.5	Moderate consensus	-	4	Very important
8) Have key U.S. based international employees gain a basic level of knowledge of Chinese language.	0.88	0.5	Moderate consensus	3	3	Moderately important
<i>C. Chinese markets:</i>						
1) Find a niche that fits the U.S. company and the Chinese markets.	1.0	0	High consensus	4	4	Very important
2) Be familiar with the sources of information that provide data necessary to make business decisions.	0.5	0	High consensus	4	4	Very important
3) Understand the product pricing system in China.	0.5	0.38	Moderate consensus	4	4	Very important

Table 4.14 (continued)

Key components	Interquartile deviation		Consensus	Median		Importance
	Round 2	Round 3		Round 2	Round 3	
4) Consider both local consumption and export potential of a product.	0.5	0.38	Moderate consensus	4	4	Very important
5) Investigate the Chinese market in order to gain an understanding of market dynamics.	0.5	0.5	Moderate consensus	4	4	Very important
6) Have a solid understanding of Chinese customers and their needs.	0.5	0.5	Moderate consensus	4	4	Very important
<i>D. <u>Political and economic climate in China:</u></i>						
1) Understand the impact of trade barriers on business between the U.S. and China.	0.5	0	High consensus	4	4	Very important
2) Understand the political and economic climate in China as it applies to business development.	0.5	0	High consensus	4	4	Very important
3) Be familiar with Chinese government regulations and incentives.	0.5	0.38	Moderate consensus	-	4	Very important
4) # Understand the expectations of Chinese government officials.	-	0.38	Moderate consensus	4	4	Very important
5) # Select the right individuals to help navigate the business climate in China.	-	0.5	Moderate consensus	-	4	Very important

Table 4.14 (continued)

Key components	Interquartile deviation		Consensus	Median		Importance
	Round 2	Round 3		Round 2	Round 3	
<i>E. <u>Product advantages and customer service:</u></i>						
1) Provide service support for product in China.	0.88	0.5	Moderate consensus	4	5	Essential
2) Develop product recognition in China in order to establish the brand.	0	0	High consensus	4	4	Very important
3) Study the difference between the current product and the proposed product to make sure the proper value is there.	0.5	0	High consensus	4	4	Very important
4) Persuade Chinese people to understand the benefits of U.S. technology.	0.5	0.38	Moderate consensus	4	4	Very important
5) # Invite Chinese partners to visit your U.S. facilities.	-	0.5	Moderate consensus	-	4	Very important
6) Have U.S. based senior management visit and speak with customers in China.	1.0	1.0	Low consensus	4	4	Very important
<i>F. <u>Human resources and labor costs in China:</u></i>						
1) Understand that entering the Chinese marketplace should be for reasons beyond wage differentials between the U.S. and China.	0.5	0.5	Moderate consensus	4	5	Essential

Table 4.14 (continued)

Key components	Interquartile deviation		Consensus	Median		Importance
	Round 2	Round 3		Round 2	Round 3	
2) Understand that the Chinese labor cost for manager-type employees is rising quickly and the differential with the U.S. is closing rapidly.	1.0	0.5	Moderate consensus	4	5	Essential
3) Know the background of your Chinese employees.	0.88	0	High consensus	4	4	Very important
4) Have a strong Chinese management team in China.	0.5	0.38	Moderate consensus	4	4	Very important
5) # Create a solid educated workforce that is paid a fair wage.	-	0.5	Moderate consensus	-	4	Very important
6) # Have managers with empathy for the worker's needs.	-	0.5	Moderate consensus	-	4	Very important
7) # Hire employees that have expertise and knowledge in the science behind the products.	-	0.5	Moderate consensus	-	4	Very important
8) Hire Chinese Nationals that have education/training experience in the U.S. as key employees.	0.5	0.5	Moderate consensus	4	3	Moderately important
9) Utilize interpreters or consultants.	0.5	0.5	Moderate consensus	3	3	Moderately important

Table 4.14 (continued)

Key components	Interquartile deviation		Consensus	Median		Importance
	Round 2	Round 3		Round 2	Round 3	
<i>G. Networks and partnerships in China:</i>						
1) Establish rapport with the Chinese partners.	0.50	0	High consensus	5	5	Essential
2) Understand how connections are formed among Chinese people.	0.50	0.38	Moderate consensus	4	4	Very important
3) Understand the influence of networks in government, business, and industry.	0.50	0.50	Moderate consensus	4	4	Very important
4) Find and evaluate potential business partners in order to have trustworthy partners.	0.50	0.50	Moderate consensus	4	4	Very important
5) Create good personal networks within appropriate business sectors.	0.50	0.50	Moderate consensus	4	4	Very important
6) Understand the value of partnerships when entering the Chinese market.	0.38	0.50	Moderate consensus	4	4	Very important
7) Partner with Chinese government branches.	0.50	0.50	Moderate consensus	4	4	Very important
8) Understand the role of experts from Chinese universities in business development.	0.50	0.50	Moderate consensus	4	4	Very important
9) # Identify the key values and common ground of partners in China.	-	1.0	Low consensus	-	4	Very important



Table 4.14 (continued)

Key components	Interquartile deviation		Consensus	Median		Importance
	Round 2	Round 3		Round 2	Round 3	
10) Develop partnerships with Chinese universities in order to find potential employees.	0.50	0.50	Moderate consensus	3	3	Moderately important
11) Utilize distributors.	0.50	0.50	Moderate consensus	3	3	Moderately important
12) Participate in and support Chinese professional organizations.	0.50	0.50	Moderate consensus	3	3	Moderately important
<i>H. Chinese business practices:</i>						
1) Develop long-term business goals in China.	0.5	0.5	Moderate consensus	4.5	5	Essential
2) # Have face-to-face interactions when doing business in China.	-	0.5	Moderate consensus	-	4.5	Essential
3) Study how/why businesses and government operate the way they do before making any major decisions in China.	0.38	0	High consensus	4	4	Very important
4) Have strong ties to the Chinese regulatory officials that approve the registration of the products you plan to market.	0.38	0	High consensus	4	4	Very important
5) Have sound infrastructures in China necessary for the establishment of proper business.	0.5	0	High consensus	4	4	Very important
6) Understand Chinese business “ground rules.”	0.5	0.5	Moderate consensus	4	4	Very important

Table 4.14 (continued)

Key components	Interquartile deviation		Consensus	Median		Importance
	Round 2	Round 3		Round 2	Round 3	
7) # Communicate effectively with people who actually do the work in China.	-	0.5	Moderate consensus	-	4	Very important
8) Have raw materials supplied locally in China.	1.0	0	High consensus	3	3	Moderately important
9) Build facilities in China near customer bases and utilities.	0.5	0.5	Moderate consensus	3	3	Moderately important
<i>I. Legal counsel and intellectual property in China:</i>						
1) Protect intellectual property rights in China.	0.5	0.5	Moderate consensus	4	5	Essential
2) Understand the Chinese legal system in order to apply to business development.	0.75	0	High consensus	4	4	Very important
3) Seek help from Chinese legal experts.	0	0	High consensus	4	4	Very important
4) # Have people on your payroll that are versed in Chinese and U.S. laws.	-	0.5	Moderate consensus	-	4	Very important

*Note.* “#” indicates key component suggested from second round. “-” indicates key component generated in the second round therefore no value available. Values are based on a five-point Likert rating scale: Unimportant (1), Slightly Important (2), Moderately Important (3), Very Important (4), and Essential (5). Consensus level is based on the interquartile deviation in the third round and was defined as: High consensus (interquartile deviation = 0), Moderate consensus ( $0 < \text{interquartile deviation} \leq 0.5$ ), Low consensus ( $0.5 < \text{interquartile deviation} \leq 1$ ), and No consensus ( $1 < \text{interquartile deviation}$ ). Importance level is based on the median score in the third round and was defined as: Unimportant (1.00), Slightly Important (1.50 or 2.00), Moderately Important (2.50 or 3.00), Very Important (3.50 or 4.00), and Essential (4.50 or 5.00).

As listed in Table 4.14, of the 50 key components generated in the first round, the interquartile deviations of the importance rating of 28 key components decreased from second round to third round, meaning an increase in consensus. The decreases in interquartile deviation resulted in higher consensus levels of the importance rating for 19 key components. Those consensus level changes include 14 key components moving from moderate consensus to high consensus, four key components moving from low consensus to high consensus, and one key components moving from low consensus to moderate consensus. However, the consensus levels of the importance rating of the other nine key components did not change during re-rating in the third round.

Of the other 22 key components generated in the first round, the interquartile deviations of the importance rating of 21 key components did not change their interquartile deviations between second round and third round. Therefore, their consensus levels of the importance rating of the key components did not change during re-rating in the third round. The interquartile deviation of one key component (G6) increased from second round to third round. However, its consensus level of the importance rating did not change during re-rating in the third round.

Therefore, 19 of the 50 key components generated in the first round changed their consensus levels of the importance rating between second round and third round. Thus, 62% of the key components that were generated in the first round did not change their consensus levels during re-rating in the third round.

As also listed in Table 4.14, 13 new key components were generated in the second round. At the end of the third round, 12 of the 13 key components generated from the

second round reached a moderate consensus level; the other key component (G9) reached a low consensus level.

Overall, based on the interquartile deviation at the end of this study, the ethics and trust key component group had three key components reach high consensus level and one key component reach moderate consensus level. The language and culture key component group had three key components reach high consensus level and five key components reach moderate consensus level. The Chinese markets key component group had two key components reach high consensus level and three key components reach moderate consensus level. The political and economic climate in China key component group had two key components reach high consensus level and three key components reach moderate consensus level. The product advantages and customer service key component group had two key components reach high consensus level, three key components reach moderate consensus level, and one key component reach low consensus level. The human resource and labor cost in China key component group had one key component reach high consensus level and eight key components reach moderate consensus level. The networks and partnerships in China key component group had one key component reach high consensus level, ten key components reach moderate consensus level, and one key component reach low consensus level. The Chinese business practices key component group had four key components reach high consensus level and five key components reach moderate consensus level. The legal counsel and intellectual property in China key component group had two key components reach high consensus level and two key components reach moderate consensus level.

The two key components that are at a low consensus level (Table 4.14), one (G9: Identify the key values and common ground of partners in China) was generated in the second round and the other one (E6: Have U.S. based senior management visit and speak with customers in China) was generated in the first round. Seven of the 34 panel members who changed their importance rating between second round and third round on the key component (E6) that was generated in the first round. Thus, just fewer than 21% of the panel members changed their importance rating during the two successive Delphi rounds. However, the percentage of panel members who changed their rating on a key component (G12) generated in the second round could not be calculated since the current study ended at the third round.

Therefore, at the end of the study, approximately 32% of the 63 key components reached a high consensus level, 65% reached a moderate consensus level, and 3% reached a low consensus level. A summary of the consensus level of the importance rating of the key components in the second and third rounds is listed in Table 4.15.

Table 4.15

*Summary of the Consensus Level of the Importance Rating of the Key Components in the Second and Third Rounds*

Consensus level	Key components	
	Second round	Third round
High consensus	2	20
Moderate consensus	40	41
Low consensus	8	2
No consensus	0	0
Total	50	63

*Note.* Consensus level is based on the interquartile deviation in and was defined as: High consensus (interquartile deviation = 0), Moderate consensus ( $0 < \text{interquartile deviation} \leq 0.5$ ), Low consensus ( $0.5 < \text{interquartile deviation} \leq 1$ ), and No consensus ( $1 < \text{interquartile deviation}$ ).

#### 4.2.3.3. Importance Levels of the Key Components in Second and Third Rounds

In this Delphi study, the importance of each key component was based on its median score and was defined as follows: 1) a median score of the importance rating of a key component that is equal to 4.5 or 5.0 was defined as essential; 2) a median score of the importance rating of a key component that is equal to 3.5 or 4.0 was defined as very important; 3) a median score of the importance rating of a key component that is equal to 2.5 or 3.0 was defined as moderately important; 4) a median score of the importance rating of a key component that is equal to 1.5 or 2.0 was defined as slightly important; and 5) a median score of the importance rating of a key component that is equal to 1.0 was defined as unimportant. Essential was defined as a necessary key component for U.S. agricultural companies when entering the Chinese market. A summary of the median scores of the importance rating of the key components in the second round and third round is listed in Table 4.14.

As listed in Table 4.14, of the 50 key components generated in the first round, the median scores of the importance rating of seven (7) key components (A4, B2, E1, F1, F2, H1, and I1) increased from second round to third round. The increases in median scores of the importance rating of the key components resulted in four key components (E1, F1, F2, and I1) moving from very important to essential during re-rating in the third round. The importance levels of the remaining three key components (A4, B2, and H1) did not change during re-rating in the third round.

For the remaining 43 key components generated in the first round, the median score of the importance rating for one key component (F8: Hire Chinese Nationals that

have education/training experience in the U.S. as key employees) decreased from second round to third round. The decrease in median score of the importance rating of that key component (F8) resulted in its importance level dropping from very important to moderately important during re-rating in the third round. The median scores of the importance rating of the remaining 42 key components that were generated in the first round did not change between second and third rounds. As a result, their importance levels did not change during re-rating in the third round.

Therefore, five of the 50 key components generated in the first round changed their importance levels between second and third rounds. Those changes include four key components (E1, F1, F2, and I1) moving to a higher importance level and one key component (F8) moving to a lower importance level. Thus, 90% of the key components generated in the first round did not change their importance levels during re-rating in the third round.

As also listed in Table 2.14, 13 new key components were generated in the second round. At the end of the third round, one (H2: Have face-to-face interactions when doing business in China) of the 13 key components generated from the second round was considered essential; the remaining 12 key components were considered very important.

Based on the median score at the end of this study, the ethics and trust key component group had all four key components considered as essential. The language and culture key component group had three key components considered as essential, four key components considered as very important, and one key component considered as moderately important. The Chinese markets key component group had all six key components considered as very important. The political and economic climate in China



key component group had all five key components considered as very important. The product advantages and customer service key component group had one key component considered essential and five key components considered as very important. The human resource and labor cost in China key component group had two key components considered as essential, five key components considered very important, and two key components considered as moderately important. The networks and partnerships in China key component group had one key component considered as essential, eight key components considered as very important, and three key components considered as moderately important. The Chinese business practices key component group had two key components considered as essential, five key components considered as very important, and two key components considered as moderately important. The legal counsel and intellectual property in China key component group had one key component considered as essential and three key components considered as very important.

Consequently, at the end of the study, approximately 22% of the 63 key components were considered as essential, 65% were considered as very important, and 13% were considered as moderately important. A summary of the importance level of the key components in the second round and third round is listed in Table 4.16.

Table 4.16

*Summary of the Importance Level of the Key Components in the Second Round  
and Third Round*

Importance	Key components	
	Second round	Third round
Essential	9	14
Very Important	34	41
Moderately Important	7	8
Slightly Important	0	0
Unimportant	0	0
Total	50	63

Furthermore, at the end of the study, all 14 key components that were considered essential reached either a high or moderate consensus level. Thirty-nine of the 41 key components that were considered very important reached either a high or moderate consensus level; the other two reached at the low consensus level. All of the eight key components that were considered moderately important reached either a high or moderate consensus level. A summary of the combinations of the importance and consensus levels of the key components at the end of third round is presented in Table 4.17.

Table 4.17

*Combinations of Importance and Consensus Level of the Key Components at the End of Third Round*

Consensus	Importance		
	Essential	Very Important	Moderately Important
High	7	12	1
Moderate	7	27	7
Low	0	2	0
Total	14	41	8

When the key components were grouped, the median score of the nine key component groups is either 4 or 5 for the second and third rounds, which indicated that the panel rated all nine groups as very important or essential. A summary of the median scores of the importance rating of the grouped key components in the second and third rounds is listed in Table 4.18.

The median score of the importance rating of the language and culture key component group increased from second round to third round. The increase in median score of its importance rating resulted in its importance level moving from very important to essential during re-rating in the third round. The median scores of the importance

rating of the other eight grouped key components did not change between second and third rounds. As a result, their importance levels did not change during re-rating in the third round. Thus, eight of the nine grouped key components did not change their importance levels during re-rating in the third round.

Consequently, at the end of this study, the ethics and trust key component group and the language and culture key component group were both considered essential. The other seven grouped key components were considered very important.

Table 4.18

*Grouped Key Components and Their Importance Level*

Key component groups	Median		Importance
	Round 2	Round 3	
Ethics and trust	5	5	Essential
Language and culture	4	5	Essential
Chinese markets	4	4	Very important
Political and economic climate in China	4	4	Very important
Product advantages and customer service	4	4	Very important
Human resources and labor costs in China	4	4	Very important
Networks and partnerships in China	4	4	Very important
Chinese business practices	4	4	Very important
Legal counsel and intellectual property in China	4	4	Very important

*Note.* Values are based on a five-point Likert rating scale: Unimportant (1), Slightly Important (2), Moderately Important (3), Very Important (4), and Essential (5). Importance level is based on the median score in the third round and was defined as: Unimportant (1.00), Slightly Important (1.50 or 2.00), Moderately Important (2.50 or 3.00), Very Important (3.50 or 4.00), and Essential (4.50 or 5.00).

In the second round, the mean scores of the importance rating for the 50 key components ranged from 2.97 to 4.68. In the third round, the mean scores of the importance ratings for the 63 key components ranged from 2.88 to 4.88. A summary of the mean value of the importance rating for the key components in the second and third rounds is listed in Table 4.19.

Twenty-nine of the 50 key components generated in the first round increased their mean scores from second to third round. The mean score increases ranged from 0.03 to 0.41. Notably, the mean scores of the key components from the ethic and trust group and the language and culture group generated in the first round all increased.

The mean scores for nine of the 50 key components generated in the first round did not change second to third round.

A decrease in mean scores from second to third round was noted for 12 of the 50 key components generated in the first round. The mean score decreases ranged from 0.03 to 0.18.

As noted before, the change in mean scores of the 41 key components during re-rating resulted in only five changing their importance levels between second and third rounds. Thus, 90% of the key components that were generated in the first round did not change their importance levels during re-rating in the third round despite the change of mean scores of 41 key components.

Table 4.19

*Key Components and Their Mean Score Changes between Second Round and Third Round*

Key components	Mean		Mean difference
	Round 2	Round 3	
<i>A. <u>Ethics and trust:</u></i>			
1) Develop a strong trusting relationship with the company you are planning to do business with.	4.59	4.88	+ 0.29
2) Be honest and reliable in order to build mutual trust.	4.65	4.88	+ 0.23
3) Build trust in U.S. company and its products.	4.68	4.82	+ 0.14
4) Understand that Chinese definitions of personal ethics may be different from that in the U.S.	4.38	4.65	+ 0.27
<i>B. <u>Language and culture:</u></i>			
1) Recognize that Chinese culture is different from that of the U.S.	4.50	4.88	+ 0.38
2) Have knowledge of the way Chinese culture affects business transactions.	4.41	4.82	+ 0.41
3) Have key employees in China be able to speak and understand both Chinese and English.	4.35	4.76	+ 0.41
4) Hire employees that demonstrate an understanding and appreciation of both the U.S. and Chinese culture.	4.15	4.24	+ 0.09
5) # Double-check translation in order to avoid lost meanings or unintended messages due to language.	-	4.18	-
6) # Understand that culture can vary depending on where in China you are doing business.	-	4.03	-
7) # Have a company culture that fosters multiculturalism in hiring choices and daily operations.	-	3.82	-
8) Have key U.S. based international employees gain a basic level of knowledge of Chinese language.	3.21	3.24	+ 0.03

Table 4.19 (continued)

Key components	Mean		Mean difference
	Round 2	Round 3	
<i>C. Chinese markets:</i>			
1) Find a niche that fits the U.S. company and the Chinese market.	3.91	4.09	+ 0.18
2) Be familiar with the sources of information that provide data necessary to make business decisions.	4.03	3.97	- 0.06
3) Understand the product pricing system in China.	4.26	4.21	- 0.05
4) Consider both local consumption and export potential of a product.	3.94	4.15	+ 0.21
5) Investigate the Chinese market in order to gain an understanding of market dynamics.	4.35	4.38	+ 0.03
6) Have a solid understanding of Chinese customers and their needs.	4.29	4.26	- 0.03
<i>D. Political and economic climate in China:</i>			
1) Understand the impact of trade barriers on business between the U.S. and China.	4.18	4.18	0
2) Understand the political and economic climate in China as it applies to business development.	4.24	4.09	- 0.15
3) Be familiar with Chinese government regulations and incentives.	4.24	4.24	0
4) # Understand the expectations of Chinese government officials.	-	3.94	-
5) # Select the right individuals to help navigate the business climate in China.	-	4.29	-
<i>E. Product advantages and customer service:</i>			
1) Provide service support for product in China.	4.12	4.50	+ 0.38
2) Develop product recognition in China in order to establish the brand.	4.09	4.09	0
3) Study the difference between the current product and the proposed product to make sure the proper value is there.	3.82	4.00	+ 0.18

Table 4.19 (continued)

Key components	Mean		Mean difference
	Round 2	Round 3	
4) Persuade Chinese people to understand the benefits of U.S. technology.	3.59	3.74	+ 0.15
5) Invite Chinese partners to visit your U.S. facilities.	-	3.82	-
6) Have U.S. based senior management visit and speak with customers in China.	3.74	3.94	+ 0.20
<i>F. Human resource and labor cost in China:</i>			
1) Understand that entering the Chinese marketplace should be for reasons beyond wage differentials between the U.S. and China.	4.24	4.53	+ 0.29
2) Understand that the Chinese labor cost for manager-type employees is rising quickly and the differential with the U.S. is closing rapidly.	3.91	4.21	+ 0.30
3) Know the background of your Chinese employees.	3.94	4.03	+ 0.09
4) Have a strong Chinese management team in China.	4.06	4.00	- 0.06
5) # Create a solid educated workforce that is paid a fair wage.	-	4.24	-
6) # Have managers with empathy for the worker's needs.	-	4.18	-
7) # Hire employees that have expertise and knowledge in the science behind the products.	-	4.03	-
8) Hire Chinese Nationals that have education/training experience in the U.S. as key employees.	3.62	3.47	- 0.15
9) Utilize interpreters or consultants.	3.35	3.29	- 0.06



Table 4.19 (continued)

Key components	Mean		Mean difference
	Round 2	Round 3	
<i>G. Networks and partnerships in China:</i>			
1) Establish rapport with the Chinese partners.	4.41	4.74	+ 0.33
2) Understand how connections are formed among Chinese people.	4.09	4.09	0
3) Understand the influence of networks in government, business, and industry.	4.35	4.38	+ 0.03
4) Find and evaluate potential business partners in order to have trustworthy partners.	4.38	4.38	0
5) Create good personal networks within appropriate business sectors.	4.29	4.29	0
6) Understand the value of partnerships when entering the Chinese market.	4.06	4.24	+ 0.18
7) Partner with Chinese government branches.	3.68	3.68	0
8) Understand the role of experts from Chinese universities in business development.	3.53	3.62	+ 0.09
9) # Identify the key values and common ground of partners in China.	-	4.00	-
10) Develop partnerships with Chinese universities in order to find potential employees.	3.32	3.41	+ 0.09
11) Utilize distributors.	3.44	3.26	- 0.18
12) Participate in and support Chinese professional organizations.	3.38	3.26	+ 0.12

Table 4.19 (continued)

Key components	Mean		Mean difference
	Round 2	Round 3	
<i>H. Chinese business practices:</i>			
1) Develop long-term business goals in China.	4.38	4.59	+ 0.21
2) # Have face-to-face interactions when doing business in China.	-	4.47	-
3) Study how/why businesses and government operate the way they do before making any major decisions in China.	4.00	4.00	0
4) Have strong ties to the Chinese regulatory officials that approve the registration of the products you plan to market.	3.88	4.00	+ 0.12
5) Have sound infrastructures in China necessary for the establishment of proper business.	3.76	3.88	+ 0.08
6) Understand Chinese business “ground rules.”	4.24	4.24	0
7) Communicate effectively with people who actually do the work in China.	-	4.24	-
8) Have raw materials supplied locally in China.	2.97	2.88	- 0.09
9) Build facilities in China near customer bases and utilities.	3.24	3.15	- 0.09
<i>I. Legal counsel and intellectual property in China:</i>			
1) Protect intellectual property rights in China.	4.09	4.35	+ 0.26
2) Understand the Chinese legal system in order to apply to business development.	3.88	3.85	- 0.03
3) Seek help from Chinese legal experts.	3.79	3.76	- 0.03
4) # Have people on your payroll that are versed in Chinese and U.S. laws.	-	3.53	-

*Note.* “#” indicates key component suggested from second round. “-” indicates key component generated in the second round therefore no value available. Mean values are based on a five-point Likert rating scale: Unimportant (1), Slightly Important (2), Moderately Important (3), Very Important (4), and Essential (5).

As grouped key components, the mean scores of the importance rating for the nine grouped key components range from 3.78 to 4.57 and 3.88 to 4.81 in the second and third round, respectively. Seven of the nine grouped key components increased their mean scores from second to third round. The increases of their mean scores ranged from 0.03 to 0.24. A decrease in mean scores of 0.04 and 0.07 for two of the nine grouped key components was noted from second to third round. The decreases of their mean scores ranged from . . . . A summary of the mean scores of the importance rating of the nine grouped key components in the second round and third round is listed in Table 4.20.

As noted before, the change of mean scores of the nine grouped key components during re-rating resulted in only one of them changing their importance level between second round and third round.

Table 4.20

*Grouped Key Components and Their Mean Scores in the Second Round and Third Round*

Key component groups	Mean		Mean difference
	Round 2	Round 3	
Ethics and trust	4.57	4.81	+ 0.24
Language and culture	4.12	4.25	+ 0.13
Chinese markets	4.13	4.18	+ 0.05
Political and economic climate in China	4.22	4.15	- 0.07
Product advantages and customer service	3.87	4.01	+ 0.14
Human resources and labor costs in China	3.85	4.00	+ 0.15
Networks and partnerships in China	3.92	3.95	+ 0.03
Chinese business practices	3.78	3.94	+ 0.16
Legal counsel and intellectual property in China	3.92	3.88	- 0.04

*Note.* Mean values are based on a five-point Likert rating scale: Unimportant (1), Slightly Important (2), Moderately Important (3), Very Important (4), and Essential (5).

At the end of the study, the Non-Chinese heritage panel members rated seven key components as greater ( $p < 0.05$ ) in the importance rating than did the Chinese panel members. These seven key components included one from the political and economic climate in China group (D3), two from the product advantages and customer service group (E5, E6), two from the networks and partnerships in China group (G8, G10), and two from the Chinese business practices group (H2, H4). The Chinese panel members did rate one key component (H8: Have raw materials supplied locally in China) in the Chinese business practices group as greater ( $p < 0.05$ ) in the importance rating than did the Non-Chinese (Caucasian/White) panel members.

A summary of the mean scores of the importance rating of the 63 key components in the third round from the Chinese and Non-Chinese panel members is listed in Table 4.21.

Table 4.21

*Key Components and Their Mean Scores of the Chinese and Non-Chinese Panel  
Members in the Third Round*

Key components	Mean		<i>p value</i>
	Chinese	Non-Chinese	
<i>A. <u>Ethics and trust:</u></i>			
1) Develop a strong trusting relationship with the company you are planning to do business with.	4.77	4.95	0.18
2) Be honest and reliable in order to build mutual trust.	4.69	5.00	0.10
3) Build trust in U.S. company and its products.	4.69	4.90	0.17
4) Understand that Chinese definitions of personal ethics may be different from that in the U.S.	4.38	4.81	0.12
<i>B. <u>Language and culture:</u></i>			
1) Recognize that Chinese culture is different from that of the U.S.	4.85	4.90	0.62
2) Have knowledge of the way Chinese culture affects business transactions.	4.92	4.76	0.26
3) Have key employees in China be able to speak and understand both Chinese and English.	4.85	4.71	0.55
4) Hire employees that demonstrate an understanding and appreciation of both the U.S. and Chinese culture.	4.38	4.14	0.27
5) # Double-check translation in order to avoid lost meanings or unintended messages due to language.	4.08	4.24	0.63
6) # Understand that culture can vary depending on where in China you are doing business.	3.92	4.10	0.61
7) # Have a company culture that fosters multiculturalism in hiring choices and daily operations.	3.85	3.81	0.91
8) Have key U.S. based international employees gain a basic level of knowledge of Chinese language.	3.46	3.10	0.30

Table 4.21 (continued)

Key components	Mean		<i>p value</i>
	Chinese	Non-Chinese	
<i>C. Chinese markets:</i>			
1) Find a niche that fits the U.S. company and the Chinese market.	4.00	4.14	0.52
2) Be familiar with the sources of information that provide data necessary to make business decisions.	3.77	4.10	0.08
3) Understand the product pricing system in China.	4.15	4.24	0.66
4) Consider both local consumption and export potential of a product.	4.15	4.14	0.96
5) Investigate the Chinese market in order to gain an understanding of market dynamics.	4.15	4.52	0.06
6) Have a solid understanding of Chinese customers and their needs.	4.23	4.29	0.77
<i>D. Political and economic climate in China:</i>			
1) Understand the impact of trade barriers on business between the U.S. and China.	4.15	4.19	0.85
2) Understand the political and economic climate in China as it applies to business development.	4.00	4.14	0.29
3) Be familiar with Chinese government regulations and incentives.	4.00	4.38	0.02*
4) # Understand the expectations of Chinese government officials.	3.69	4.10	0.14
5) # Select the right individuals to help navigate the business climate in China.	4.23	4.33	0.71
<i>E. Product advantages and customer service:</i>			
1) Provide service support for product in China.	4.38	4.57	0.40
2) Develop product recognition in China in order to establish the brand.	3.92	4.19	0.09
3) Study the difference between the current product and the proposed product to make sure the proper value is there.	3.92	4.05	0.48

Table 4.21 (continued)

Key components	Mean		<i>p value</i>
	Chinese	Non-Chinese	
4) Persuade Chinese people to understand the benefits of U.S. technology.	3.77	3.71	0.86
5) # Invite Chinese partners to visit your U.S. facilities.	3.38	4.10	0.01*
6) Have U.S. based senior management visit and speak with customers in China.	3.31	4.33	0.01*
<i>F. Human resource and labor cost in China:</i>			
1) Understand that entering the Chinese marketplace should be for reasons beyond wage differentials between the U.S. and China.	4.31	4.67	0.27
2) Understand that the Chinese labor cost for manager-type employees is rising quickly and the differential with the U.S. is closing rapidly.	4.15	4.24	0.82
3) Know the background of your Chinese employees.	3.77	4.19	0.08
4) Have a strong Chinese management team in China.	4.08	3.95	0.69
5) # Create a solid educated workforce that is paid a fair wage.	4.15	4.29	0.64
6) # Have managers with empathy for the worker's needs.	4.08	4.24	0.53
7) # Hire employees that have expertise and knowledge in the science behind the products.	4.00	4.05	0.87
8) Hire Chinese Nationals that have education/training experience in the U.S. as key employees.	3.31	3.57	0.35
9) Utilize interpreters or consultants.	3.00	3.48	0.17



Table 4.21 (continued)

Key components	Mean		<i>p value</i>
	Chinese	Non-Chinese	
<i>G. Networks and partnerships in China:</i>			
1) Establish rapport with the Chinese partners.	4.46	4.90	0.07
2) Understand how connections are formed among Chinese people.	4.08	4.10	0.94
3) Understand the influence of networks in government, business, and industry.	4.31	4.43	0.54
4) Find and evaluate potential business partners in order to have trustworthy partners.	4.15	4.52	0.06
5) Create good personal networks within appropriate business sectors.	4.23	4.33	0.54
6) Understand the value of partnerships when entering the Chinese market.	4.15	4.29	0.51
7) Partner with Chinese government branches.	3.31	3.90	0.10
8) Understand the role of experts from Chinese universities in business development.	3.23	3.86	0.04*
9) # Identify the key values and common ground of partners in China.	4.00	4.00	1.00
10) Develop partnerships with Chinese universities in order to find potential employees.	3.00	3.67	0.03*
11) Utilize distributors.	3.23	3.29	0.83
12) Participate in and support Chinese professional organizations.	3.31	3.24	0.81

Table 4.21 (continued)

Key components	Mean		<i>p</i> value
	Chinese	Non-Chinese	
<i>H. Chinese business practices:</i>			
1) Develop long-term business goals in China.	4.38	4.71	0.16
2) # Have face-to-face interactions when doing business in China.	4.15	4.67	0.01*
3) Study how/why businesses and government operate the way they do before making any major decisions in China.	3.92	4.05	0.60
4) Have strong ties to the Chinese regulatory officials that approve the registration of the products you plan to market.	3.62	4.24	0.01*
5) Have sound infrastructures in China necessary for the establishment of proper business.	3.62	4.05	0.09
6) Understand Chinese business “ground rules.”	4.15	4.29	0.55
7) # Communicate effectively with people who actually do the work in China.	4.38	4.14	0.41
8) Have raw materials supplied locally in China.	3.38	2.57	0.03*
9) Build facilities in China near customer bases and utilities.	3.31	3.05	0.38
<i>I. Legal counsel and intellectual property in China:</i>			
1) Protect intellectual property rights in China.	4.15	4.48	0.38
2) Understand the Chinese legal system in order to apply to business development.	3.69	3.95	0.38
3) Seek help from Chinese legal experts.	3.69	3.81	0.72
4) # Have people on your payroll that are versed in Chinese and U.S. laws.	3.62	3.48	0.68

*Note.* “#” indicates key component suggested from second round. Mean values are based on a five-point Likert rating scale: Unimportant (1), Slightly Important (2), Moderately Important (3), Very Important (4), and Essential (5). Panel members: Chinese (n=13) and Non-Chinese (n=21). Mean differences were considered significant at  $p < 0.05$ . “\*” indicates mean differences are significant.

Overall, at the end of the study, the panel rated the key components in the ethics and trust group as greater ( $p < 0.05$ ) than those in the other eight groups. The key components in the language and culture group was rated as greater ( $p < 0.05$ ) than those in the human resources and labor costs in China group, the networks and partnerships in China group, the Chinese business practices group, and the legal counsel and intellectual property in China group. Furthermore, the key components in the Chinese markets group and the political and economic climate in China group were rated as greater ( $p < 0.05$ ) than those in the legal counsel and intellectual property in China group. A summary of the comparison of the importance rating of the grouped key components in the third round is listed in Table 4.22.

Table 4.22

*Comparison of the Importance Rating of the Grouped Key Components in the Third Round*

Key component groups	Mean	SD
Ethics and trust	4.81 <sup>a</sup>	0.46
Language and culture	4.25 <sup>b</sup>	0.92
Chinese markets	4.18 <sup>bc</sup>	0.57
Political and economic climate in China	4.15 <sup>bc</sup>	0.61
Product advantages and customer service	4.01 <sup>bcd</sup>	0.78
Human resources and labor costs in China	4.00 <sup>cd</sup>	0.90
Networks and partnerships in China	3.95 <sup>cd</sup>	0.84
Chinese business practices	3.94 <sup>cd</sup>	0.91
Legal counsel and intellectual property in China	3.88 <sup>d</sup>	0.95

*Note.* Mean values are based on a five-point Likert rating scale: Unimportant (1), Slightly Important (2), Moderately Important (3), Very Important (4), and Essential (5); Means do not share a common subscript letter (*a, b, c, or d*) indicating significantly different ( $p < 0.05$ ) from each other.

#### 4.2.4. Reasons for Importance Rating Not Being the Most Frequent Response in Third Round

During the third round, space was provided at the end of each grouped set of key components for panel members to justify their rating for each response in the third round that differed from the most frequent response summarized from the second round. They were asked to list reasons for any cases where their response differed from the most frequently cited response (“most frequent response”) in order to give panel members a chance to defend their ratings and to share their opinions with other panel members and the researchers. However, some panel members chose not to provide reasons for why they did not agree with the “most frequent response.” Therefore, the reasons for why they disagreed with the “most frequent response” were unknown. It should be noted that some panel members provided their supporting reasons for why they agreed with the “most frequent response.” The reasons from Part I in the third round are presented in Appendix J.

#### 4.3. Training Topics that U.S. Agricultural Companies Should Consider When Entering the Chinese Market

##### 4.3.1. Training Suggestions Recommended by the Panel Members in First Round

In the first round, the contributory round, panel members were asked if their organizations had any training programs related to “how to do business in China” and if they had what were the training topics. Eleven (11) of the 37 panel members stated that they had training programs related to “how to do business in China.” Twenty (20) of the 37 panel members stated that they did not have such training programs. Six (6) of the 37 panel members did not answer this question. Therefore, more than half of the panel members stated that they did not have training programs related to “how to do business in China.”

Among those 11 panel members who stated they had training programs related to “how to do business in China,” five (5) utilized both internal and external resources, four (4) utilized external resources only, and two (2) utilized internal resources only. External resources include U.S. Department of Commerce, law firms, and other consulting groups.

Overall, the training components/topics suggested from the first round included:

1) Chinese history and basic language; 2) Cultural aspects of working and living in China; 3) Chinese cultural training on business norms; 4) Practices on communication and hierarchy for Chinese society; 5) Building relationship with other companies; 6) Hiring of Chinese Nationals; 7) Agricultural technology applications in China; 8) Economic transition occurring in China; and 9) Chinese regulatory system, finance

system, and legal system related to the industry. The training suggestions recommended by the 11 panel members during the first round are summarized and listed in Table 4.23.

Table 4.23

*Training Suggestions Recommended by Panel Members during the First Round*

Training topics
1. Relied upon Chinese nationals to ascertain essentials for business. Chinese partners have years of experience in China working with American companies.
2. Law Firms program: Conducting business in China. Relationships with other companies doing business in China. Chinese attorney.
3. Chinese regulatory system, finance system, and legal system related to the industry.
4. Chinese history and culture, language and, most importantly, the economic transition occurring there. Basic legal information.
5. Cultural aspects of working and living in China. Language classes for employee and family. Specific business/functional training. Mentor programs.
6. The key training topic for U.S. persons has been Chinese cultural training on the norms of business. This includes practices on communication, hierarchy, and important factors for society.
7. Programs of the U.S. Department of Commerce.
8. Personal experience/business experience.
9. Primarily the differences in U.S. and Chinese cultures.
10. Agricultural technology applications in China.
11. Chinese history, culture, and some introductory language training.

Additionally, one vice president who was in charge of international business for his company stated that although his company did not have formal training on “how to do business in China,” he would suggest doing some training:

“While we have not had formal training, I think I would suggest that this is a great idea prior to entering China. There are many peculiarities of doing business in China, and the more we understand and try to adapt to or have an appreciation of these things, the more successful we will be in establishing business relationships.”

#### 4.3.2. Consensus and Importance of Training Topics in Third Round

##### 4.3.2.1. Central Tendency and Convergence Measures of the Training Topics in Third Round

As noted before, during the first and second rounds the panel generated 63 key components that U.S. agricultural companies should consider when entering the Chinese market. These key components were grouped into nine groups: ethics and trust, language and culture, Chinese markets, political and economic climate in China, product advantages and customer service, human resources and labor costs in China, networks and partnerships in China, Chinese business practices, and legal counsel and intellectual property in China. For the third round of this Delphi study, the panel members were asked to rate the importance of the nine key component groups for inclusion in a training program that U.S. agricultural company should consider when entering the Chinese



market. A five-point Likert scale of importance rating for each training topic was administered to 34 panel members. The descriptive statistics for these ratings are reported in Appendix K.

#### 4.3.2.2. Consensus Levels of the Training Topics in Third Round

In this Delphi study, which utilized a five-point Likert rating scale, the consensus level of the training topics was defined as follows: 1) an interquartile deviation of a training topic that is equal to zero was defined as having achieved high consensus; 2) an interquartile deviation of a training topic that is greater than zero but less than or equal to 0.50 was defined as having achieved moderate consensus; 3) an interquartile deviation of a training topic that is greater than 0.50 but less than or equal to 1.00 was defined as having achieved low consensus; and 4) an interquartile deviation of a training topic that is greater than 1.00 was defined as did not achieve consensus.

The interquartile deviations of the importance rating of the nine training topics that were listed in the third round ranged from zero to 0.50. Therefore, all training topics reached at least a moderate consensus level at the end of the study.

Of the nine training topics, the importance level of the “product advantages and customer service group” reached high consensus level among the panel. The other eight training topics reached moderate consensus level. A summary of the interquartile deviation and consensus level for the importance rating of the training topics in the third round is listed in Table 4.24.

Table 4.24

*Training Topics and Their Consensus and Importance Level in the Third Round*

Key components	Interquartile deviation	Consensus	Median	Importance
Ethics and trust	0.50	Moderate consensus	5	Essential
Chinese markets	0.50	Moderate consensus	5	Essential
Networks and partnerships in China	0.50	Moderate consensus	4	Very important
Chinese business practices	0.50	Moderate consensus	4	Very important
Language and culture	0.50	Moderate consensus	4	Very important
Product advantages and customer service	0	High consensus	4	Very important
Political and economic climate in China	0.50	Moderate consensus	4	Very important
Legal counsel and intellectual property in China	0.38	Moderate consensus	4	Very important
Human resources and labor costs in China	0.50	Moderate consensus	4	Very important

*Note.* Values are based on a five-point Likert rating scale: Unimportant (1), Slightly Important (2), Moderately Important (3), Very Important (4), and Essential (5). Consensus level is based on the interquartile deviation and was defined as: High consensus (interquartile deviation = 0), Moderate consensus ( $0 < \text{interquartile deviation} \leq 0.5$ ), Low consensus ( $0.5 < \text{interquartile deviation} \leq 1$ ), and No consensus ( $1 < \text{interquartile deviation}$ ). Importance level is based on the median score and was defined as: Unimportant (1.00), Slightly Important (1.50 or 2.00), Moderately Important (2.50 or 3.00), Very Important (3.50 or 4.00), and Essential (4.50 or 5.00).

#### 4.3.2.3. Importance Levels of the Training Topics in Third Round

In this Delphi study, the importance of each training topic was based on its median score and was defined as follows: 1) a median score of the importance rating of a training topic that is equal to 4.5 or 5.0 was defined as essential; 2) a median score of the importance rating of a training topic that is equal 3.5 or 4.0 was defined as very important; 3) a median score of the importance rating of a training topic that is equal to 2.5 or 3.0 was defined as moderately important; 4) a median score of the importance rating of a training topic that is equal to 1.50 or 2.0 was defined as slightly important; and 5) a median score of the importance rating of a training topic that is equal to 1.0 was defined as unimportant. A summary of the median scores of the importance rating of the training topic in the third round is listed in Table 4.24.

As noted in Table 4.24, the ethics and trust along with the Chinese markets were both considered as essential training topics by the panel. The other seven training topics were considered as very important.

Furthermore, at the end of the study, the two training topics that were considered essential reached a moderate consensus level. Of the other seven training topics that were considered very important, one reached a high consensus level and six reached a moderate consensus level. A summary of the combinations of the importance level and consensus level of the training topics at the end of third round is presented in Table 4.25.

Table 4.25

*Combinations of Importance and Consensus of the Training Topics at the End of Third Round*

Consensus	Importance	
	Essential	Very Important
High	0	1
Moderate	2	6
Total	2	7

At the end of the study, the importance ratings of the training topics between the Non-Chinese heritage (Caucasian/White) and Chinese heritage panel members were not different ( $p > 0.05$ ). A summary of the mean scores of the importance rating of the training topics in the third round from the Chinese and Non-Chinese panel members is listed in Table 4.26.

Table 4.26

*Training Topics and Their Mean Scores of the Chinese and Non-Chinese Panel Members in the Third Round*

Training topics	Mean		<i>p</i> value
	Chinese	Non-Chinese	
Ethics and trust	4.38	4.62	0.34
Networks and partnerships in China	4.54	4.38	0.44
Chinese markets	4.46	4.38	0.75
Chinese business practices	4.23	4.43	0.37
Language and culture	4.08	4.43	0.14
Product advantages and customer service	4.15	4.19	0.83
Political and economic climate in China	3.77	4.24	0.14
Legal counsel and intellectual property in China	3.77	3.81	0.91
Human resources and labor costs in China	3.85	3.71	0.61

*Note.* Mean values are based on a five-point Likert rating scale: Unimportant (1), Slightly Important (2), Moderately Important (3), Very Important (4), and Essential (5). Panel members: Chinese (n=13) and Non-Chinese (n=21).

The mean scores of the importance rating of the nine training topics ranged from 3.76 to 4.53. Overall, the panel rated the training topics in the ethics and trust group, the networks and partnerships in China group, the Chinese markets group, and the Chinese business practices group higher ( $p < 0.05$ ) than those in the legal counsel and intellectual property in China group and the human resources and labor costs in China group. A summary of the comparison of the importance rating of the nine training topics in the third round is listed in Table 4.27.

Table 4.27  
*Comparison of the Importance Rating of the Training Topics in the Third Round*

Training topics	Mean	SD
Ethics and trust	4.53 <sup>a</sup>	0.62
Networks and partnerships in China	4.44 <sup>a</sup>	0.56
Chinese markets	4.41 <sup>a</sup>	0.70
Chinese business practices	4.35 <sup>a</sup>	0.60
Language and culture	4.29 <sup>ab</sup>	0.68
Product advantages and customer service	4.18 <sup>ab</sup>	0.46
Political and economic climate in China	4.06 <sup>ab</sup>	0.89
Legal counsel and intellectual property in China	3.79 <sup>b</sup>	0.98
Human resources and labor costs in China	3.76 <sup>b</sup>	0.82

*Note.* Mean values are based on a five-point Likert rating scale: Unimportant (1), Slightly Important (2), Moderately Important (3), Very Important (4), and Essential (5); Means do not share a common subscript letter (*a* or *b*) indicating significantly different ( $p < 0.05$ ) from each other.

#### 4.3.3. Additional Training Suggestions Recommended by the Panel Members in the Third Round

During the third round, panel members were asked to suggest additional training topic(s). Only four panel members provided suggestions for additional training topic(s).

One panel member suggested that training topics identified in this study were also applicable to the training needs of Chinese employees working in U.S. operations/companies.

Two panel members strongly agreed that it is important to have the suggested training topics from this study. One of them suggested that it is important to get updated information and appropriate training on the dynamics of Chinese economic growth and development in order to fully maximize market opportunities in China. This panel member stated:

“It is important to understand that China is not one market where one size fits all. Each region has different characteristics from language (dialects) and culture, different stages of economic development, different distribution systems. Also, China can be market segmented by income. In addition, the dynamics of rapid economic growth must be understood to fully maximize market opportunities.”

The other panel member proposed that experts in certain areas could be hired in lieu of providing training. This panel member stated:

“For the human resource and labor cost, understanding is important, and training is important, but you can hire people who have expertise in this area; same for legal counsel and intellectual property, understanding these are essential but expertise can be hired.”

The fourth panel member stated that the training topics are very important issues but not necessary when entering the Chinese market. This panel member stated:

“These are all very important issues, but I do not believe professional training is essential upon deciding to enter this market.”



## CHAPTER 5. SUMMARY, CONCLUSIONS, IMPLICATIONS, RECOMMENDATIONS, AND FUTURE RESEARCH SUGGESTIONS

Chapter 5 includes five main parts. The first part is an overall summary of this study; the second part contains conclusions of this study and their relationship with the literature; the third part contains implications of this study; the fourth part contains recommendations from this study; and the fifth part contains future research suggestions.

This chapter is organized as follows:

- 1) Summary
- 2) Conclusions
  - a. Key components that U.S. agricultural companies should consider when entering the Chinese market
    - i. Ethics and trust
    - ii. Language and culture
    - iii. Chinese markets
    - iv. Political and economic climate in China
    - v. Product advantages and customer service
    - vi. Human resources and labor costs in China
    - vii. Networks and partnerships in China
    - viii. Chinese business practices
    - ix. Legal counsel and intellectual property in China
  - b. Training topics that U.S. agricultural companies should consider when entering the Chinese market
- 3) Implications

- 4) Recommendations
- 5) Future research suggestions

### 5.1. Summary

One major objective of this study was to identify key components and their importance in the development of an effective U.S.-China business partnership by U.S. agricultural companies. Another major objective of this study was to identify training topics and their importance in an educational training program targeted at U.S. agricultural companies wishing to conduct business in China. Therefore, the research goals of this study were to:

1. Identify key components for development of an effective Chinese business partnership by U.S. agricultural companies;
2. Evaluate and validate the importance of the key components for development of an effective Chinese business partnership by U.S. agricultural companies;
3. Identify training topics required for development of an effective Chinese business partnership by U.S. agricultural companies;
4. Evaluate and validate the importance of the training topics for development of an effective Chinese business partnership by U.S. agricultural companies.

In order to accomplish the research goals, this study utilized the Delphi technique described by Linstone and Turoff (1975). The Delphi technique was deemed as the most

appropriate procedure to answer the research questions. First, the lack of face-to-face meetings of participants stimulates creativity and reflection while avoiding conflicts of personality and forcing the domination of opinions on the group by individuals with high positions or status. Second, the current research questions could also benefit from subjective judgments on a collective basis. This was done in an attempt to arrive at a consensus conclusion. Third, since the panel members were widely scattered geographically, the Delphi method allowed for inputs from highly qualified experts without the need for traveling and physically meeting. A minimal commitment of time on the part of these experts was also guaranteed. Fourth, business development strategies among individual companies are considered highly confidential so that the communication process must be anonymous. Finally, the Delphi panel members would be motivated by the assurance that the results of the current research would be shared with them at the end of this study.

The majority of the panel members were identified from international agricultural expositions and conferences held in the U.S. during 2007 and 2008. The purposive sampling method was used to select the panel in order to identify experts with experiences related to Chinese business partnership development. The panel members were U.S. agriculture business experts who understood the research topics, had international agriculture business experience, and were willing to share such experiences. The purposefully selected panel also assumed to increase the willingness of the participants and the survey return rate. Thirty-seven professionals completed the first round survey. Of the 37 professionals who completed the first round survey, 34 completed the second and third round surveys. Panel members were purposefully

selected to represent the agricultural industry, government, and higher education sectors. Of the 37 panel members, approximately 35% reported being Chinese while 65% reported being Non-Chinese. Detailed demographic information about the panel members is summarized in Chapter 4.

This Delphi study included three rounds and therefore three different research instruments were developed. In the first round, the contributory round, the panel members were asked: “In your opinion, what are the key components U.S. agricultural companies should consider when entering the Chinese market?” During the first round, previously available literature, the researcher’s one-year personal consulting experiences with a U.S. agricultural company, and informal personal interviews conducted during industry gatherings with U.S. agricultural company representatives were utilized to develop key words. These key words served as thought provokers for creation of potential key components in the first round research instrument. Therefore, key words such as: a familiarity with language, knowledge about business culture, having good networks, conducting effective communication, building mutual trust, hiring appropriate employees, were provided as the thought provokers for potential key components in the first round research instrument. The first round research instrument contained a mix of open- and close-ended questions including questions pertaining to the panel members’ demographic background. Summarized data and finding are presented in chapter 4.

In the second round, the answers from the open-ended questions that were utilized to generate potential key components in the first round were coded into themes and categories. The coding process was conducted by reading each of the questionnaire documents and attributing a code to the sentences, paragraphs, or sections. The themes

and categories were constantly revisited after initial coding, until it was clear that no new themes were emerging. These themes or categories with which each part of the data was associated were used to generate statements. The statements were edited to a manageable summary of items which were identified as the key components for the development of effective Chinese business partnerships by the U.S. agricultural companies. The resulting 50 key components became the basis of the research instruments utilized in the second and third rounds. The second round survey questionnaire included nine groups of key components. These nine key components groups included: ethics and trust; language and culture; Chinese markets; political and economic climate in China; product advantages and customer service; human resources and labor costs in China; networks and partnerships in China; Chinese business practices; and legal counsel and intellectual property in China. The second round survey asked the panel to rate the importance of the key components based on a five-point Likert rating scale (Unimportant (1), Slightly Important (2), Moderately Important (3), Very Important (4), and Essential (5)). Additional space was provided to the panel at the end of each section to list additional key components. Data were summarized at the end of this round and findings are presented in Chapter 4.

For the third round, the research instrument had two parts. In Part I, the panel members again rated the importance of the key components used in the second round on the same five-point Likert rating scale. In addition, Part I included an additional 13 key components recommended by the panel from the second round survey. The approach used in the development of the key components in the first round was used to generate additional key components during the second round. The additional key components

were classified into the existing nine groups of key components. Therefore, Part I of the third round research instrument included 63 key components. Space was provided to the panel at the end of each section for justifying why his/her rating for the third round deviated from the most frequent response. Part II of the third round research instrument asked the panel to rate the importance of a training program for each of the nine grouped key components. Space was provided to the panel at the end of Part II to list additional training topic(s). Data were summarized at the end of this round and findings are presented in Chapter 4.

At the conclusion of this Delphi study, the panel had generated a total of 63 key components that U.S. agricultural companies should consider when entering the Chinese market. Approximately 32% of the 63 key components reached a high consensus level, 65% reached a moderate consensus level, and 3% reached a low consensus level. Also, at the end of the study, all 63 key components were rated by the panel as at least moderately important. Approximately 22% of the 63 key components were considered essential, 65% were considered very important, and 13% were considered moderately important. Therefore, a total of 14 key components among the 63 key components were considered by the panel to be essential. Of those 14 essential key components, four were from the ethics and trust group, three were from the language and culture group, two were from the human resources and labor costs in China, and two were from the Chinese business practices. Additionally, each of the following groups contained one essential key component: product advantages and customer service; networks and partnerships in China; and legal counsel and intellectual property in China. Forty-one (41) key components were rated as very important. Therefore, a total of 55 key components were

considered by the panel as essential or very important. The panel also rated eight key components as moderately important. A summary of the key components and their importance levels at the end of this study is listed in Table 4.14.

Of the nine training topics for which training was recommended for U.S. agricultural company wishing to enter the Chinese market, the product advantages and customer service group reached high consensus level among the panel. The other eight training topics reached moderate consensus level. Also, of the nine training topics, the ethics and trust as well as the Chinese markets were both considered as essential by the panel for including in training program that U.S. agricultural companies should consider when entering the Chinese market. The other seven training topics considered as very important were: language and culture, political and economic climate in China, product advantages and customer service, human resources and labor costs in China, networks and partnerships in China, Chinese business practices, and legal counsel and intellectual property in China. A summary of the training topics and their importance levels at the end of this study is listed in Table 4.24. A summary of the percentage distribution of the importance level of the key components and training topics at the end of the study is listed in Appendix L.

## 5.2. Conclusions

First, this study identified key components and their importance in development of an effective U.S.-China business partnership by U.S. agricultural companies. Secondly, this study also identified the training topics and their importance in an

educational training program targeted at U.S. agricultural companies wishing to conduct business in China.

#### 5.2.1. Key Components That U.S. Agricultural Companies Should Consider When Entering the Chinese Market

This study utilized experts who are knowledgeable about both international agricultural business and the Chinese markets in order to generate key components that U.S. agricultural companies should consider when entering the Chinese market. The panel in this study generated 63 key components that U.S. agricultural companies should consider when entering the Chinese market. All 63 key components were rated by the panel as at least moderately important. Approximately 87% of the 63 key components generated in this study were considered by the panel as very important or essential and 13% of the 63 key components were considered as moderately important. As a result, according to the panel, each of the 63 key components was considered to be important to U.S. agricultural companies wishing to conduct business in China.

The ethics and trust group was rated by the panel as the most important key component group among the nine groups containing four essential key components. The language and culture group was rated by the panel as the second most important key component group with three essential key components. The study also suggested that the importance rating of the grouped key components in the Chinese markets group, the political and economic climate in China group, and the product advantages and customer service group was not different from those in the language and culture group. This



indicates that the above mentioned three key component groups have the same value as the language and culture group to the U.S. agricultural companies wishing to conduct business in China. Compared to the value of the language and culture group, the panel rated the value lower on the human resources and labor costs in China group, the networks and partnerships in China group, the Chinese business practices group, and the legal counsel and intellectual property in China group. However, according to the importance rating on the individual key component in these four groups, they should not be deemed as inferior to the language and culture group for U.S. agricultural companies wishing to conduct business in China. As a matter of fact, these four groups actually contained a total of six essential key components.

#### 5.2.1.1. Ethics and Trust

The ethics and trust group and its individual key components were considered as essential by the panel both in the second and third rounds. This group should be further emphasized because all four key components in this group were consistently considered essential during re-rating.

The emergence of the key components in the ethics and trust group along with their greater importance level distinguished this group the most. The panel emphasized that there is a need for a full understanding of the importance of ethics appreciation across cultures by company employees. Especially, having worked and lived in China, one Non-Chinese panel member stated:

“Understand the culture and know their definitions of business and personal ethics may be different from that in the U.S. (not that ours are great).”

As quoted above, this panel member suggested that it is essential to recognize that China’s cultural norms and definitions of personal ethics may be different from that in the U.S. The same panel member also warned that American ethical standards are not always considered pertinent in other cultural settings. In other words, employees from U.S. agricultural companies need to understand ethical standards in other cultural settings and respect their differences when working with their international business partners. Ahmed et al. (2003) confirmed that cultural background differences affect the personal perception and awareness of ethics in business practices by business students. Those business students’ tolerances to different business ethical behaviors are different because their personal cultural backgrounds are different. Agarwal (2002) reported that the work ethics and business ethics in other countries were deemed to be questionable by U.S. business organizations. For instance, another Non-Chinese panel member in this study also stated that he had done business with questionable Chinese companies in terms of ethics and had learned how important it was to build a mutually trusting relationship with the companies with which you work. However, other researchers suggested that having an open attitude toward different ethics is a required competency in the global context (Abramson & Ai, 1999; Davies et al., 1995; Deardorff, & Hunter, 2006; De George, 1990; Graham & Lam, 2003; Hartmann, 2004; Hunter, 2004; Hwang et al., 2008; Leung & Wong, 2001; Lovett et al., 1999; Sheng, 1979; Yeung & Tung, 1996). Vogel (1992)

also stated that U.S. business leaders need a better appreciation of the differences between the United States and Asian nations in the legal and cultural context of business ethics if they are to work effectively in an increasingly integrated global economy. Therefore, in order to build a successful business partnership, U.S. companies must not only be open to different values in personal ethics but also must identify Chinese business partners with good ethics.

More importantly, the panel expressed the need for honesty and reliability for developing strong trusting relationships between U.S. and Chinese partners. Su and Littlefield (2001) also noted that the Chinese emphasize good faith and personal trust to safeguard obligations with friends or acquaintances. However, as indicated by Graham and Lam (2003), the Chinese often feel suspicious and distrustful in meetings with strangers. Lee et al. (2006) stated that the high levels of tension during international business negotiations could negatively affect interpersonal relationships with Chinese business partners. Therefore, finding the appropriate personal links to build trust with a potential Chinese business partner is crucial. As panel members stated:

“Trust is a two-way street.”

“However, if there is one item that is most crucial, it is the development of a trusting relationship with the company you plan to work with.”

An effective communication strategy should increase trust building between U.S. and Chinese partners. Both Chinese and Non-Chinese panel members in this study

emphasized the importance of having either Chinese Nationals or other employees who know the Chinese language and culture to facilitate interactions. This is in agreement with Graham and Lam (2003) who also stated that only a native Chinese speaker can read and explain the moods, intonations, facial expressions, and body language during interactions with the Chinese, and therefore is able to communicate effectively and increase trust building.

#### 5.2.1.2. Language and Culture

The language and culture group contained the second greatest number of essential key components. Three key components in this group were considered essential by the panel. The three key components are: recognize the differences between Chinese culture and U.S. culture; have knowledge of the way Chinese culture affects business transactions; and have key employees in China who are able to speak and understand both Chinese and English. Overall, the language and culture group was considered by the panel to be essential to U.S. agricultural companies wishing to conduct business in China.

Other researchers stated that business collaborations across countries are more complicated due to differences in culture, language, and personal value (Graham & Lam, 2003; Metcalf et al., 2006; Middleton & Rodgers, 1999; Salacuse, 2003; Tovey, 1997; Zhao, 2000; Zhao & Parks, 1995). Business negotiation breakdowns have often occurred because of Western country companies' failure to understand the much broader context of Chinese culture and values (Graham & Lam, 2003). However, Adler et al. (1992) found that business collaborations between the United States and China are much more

successful when both sides take a cooperative approach by identifying cultural signs of reciprocation during negotiation.

There is no doubt about the importance of the role of language and culture in the development of business partnerships between U.S. and China. On the Chinese language perspective, one panel member stated:

“As an international representative of my company, covering the Asia market, I have been able to get by without knowing the Chinese language. However, I often wonder how much more effective I may be if I had a basic understanding of the language. I am sure there are often items that get lost in translation. Therefore, a moderate understanding would be quite helpful.”

Also, on the Chinese culture perspective, one panel member stated:

“There is no doubt that cultural understanding and mutual respect are essential for successful long-term business relationships. I think that fifteen or twenty years ago when the joint ventures were becoming available, people saw the huge population and cheap labor as automatic benefits and neglected to account for the communication with people actually doing the work, the expectations of local government officials and central government officials. Some agreements were not optimized due to this cultural confusion.”

Therefore, if U.S. company personnel are not properly trained on language and cultural issues, business development in China could be hindered. This is because

familiarity with foreign cultural characteristics and foreign language are crucial for effective communication in that foreign region or country. This study is in agreement with previous studies. Language and culture were both considered as barriers for U.S. firms doing business in China (Agarwal, 2002; Guo, 2004; Meuschke & Gribbons, 2003). Graham and Lam (2003) stated that the basic cultural values and ways of thinking are different between the U.S. and Chinese business people. One implication of the Chinese culture for business is that mutual understanding of other cultures and their origins can develop satisfying business relationships (Sheng, 1979). Other researchers suggested that relationships, trust, and harmony in the Chinese business culture are more important than any piece of legal paperwork for the Chinese business people (Alon & Shenkar, 2003; Graham & Lam, 2003; Sheng, 1979; Zhao, 2000). Both Meuschke and Gribbons (2003) and Guo (2004) suggested that language is one of the factors that inhibits the development of U.S. businesses in China. Also, Agarwal (2002) and March (1980) stated that language is one of the factors that inhibits the development of U.S. businesses in other Asian countries.

The current study suggested that it is more important to have key China-based employees gain English language skills than to have key employees in the U.S. gain Chinese language skills. This finding is consistent with a study by Guo (2004), who stated that linguistic influence on trade is more significant in China than in the U.S. However, from a culture awareness perspective, Middleton and Rodgers (1999) stated that it is more important to focus on ways to get U.S. people to communicate across other cultures than to focus on ways to get international people indoctrinated into western culture in the U.S.

Moreover, the panel pointed out that it is very important to understand that there are "cultures within cultures" and cultures can vary depending on where in China you are doing business. The current study emphasized that it is very important for employees regardless of being located in the U.S. or China to demonstrate an understanding and appreciation of both the U.S. and Chinese culture. In addition, the present study indicated that since there are differences in social culture between the U.S. and China, an unfamiliar cultural environment can be a potential source of misunderstanding and miscommunication, which could negatively affect the trust building and formation of a business partnership in China. Lee et al. (2006) also observed a lower level of trust toward each other during business negotiations between Americans and Chinese because of their cultural differences.

For this study, the panel agreed that it is important to have a company culture that fosters multiculturalism in their hiring choices and day-to-day operations. One panel member whose company is very successful in China stated:

“I hired a Chinese researcher in the U.S. headquarters to assist in communication with our China team but also to support the many Chinese visitors that come through the states, the visiting scientists and student interns, and also to help with translation of presentations and give us a second opinion on translations.”

### 5.2.1.3. Chinese Markets

The Chinese markets group contained six very important key components for U.S. agricultural companies wishing to conduct business in China. Overall, as a key components group, the Chinese markets group was also considered to be very important.

The panel in this study articulated that there are tremendous market opportunities and mutual benefits to providing quality products and services to the Chinese market by U.S. agricultural companies. One panel member stated:

“The opportunities are vast, but a strategic approach is important. Finding a niche that fits the U.S. company and the Chinese market is important. It is better to dip your cup in the Chinese market rather than attempt to drink the entire sea.”

The panel in this study considered it very important to understand the Chinese markets as well as the Chinese customers and their needs in order to design and sell products in China. One panel member stated:

“Accurate and timely data may be a challenge but is essential to understanding the market and making correct business decisions. Surrogate information may be available as a substitute. For instance, statistics on the change in percent of urban households with refrigerators was a good surrogate for the potential for frozen foods, advance indicator for supermarket growth, and a measure of the spread of the consumer/ middle class that can afford to buy more expensive processed foods.”



The panel also considered it very important for U.S. agricultural companies to think about both the local consumption and export potential of a product in their marketing potential analysis. For instance, China's local consumption is growing tremendously fast because of the increased income; and the growing demand of other neighboring Asian countries is also strong. Therefore, great market opportunities exist to provide quality products and services to the Chinese market by U.S. agricultural companies. As panel members stated:

“We intend to produce in China to export to other world markets.”

“Depending upon the product, the export market - particularly to Japan should be assessed. The rapid growth in income and spread of the Chinese middle class makes this less important over time. However, the Japanese market is a potential “cash cow” for the right products. It is also a quality test.”

“I consider ‘consider both local consumption and export potential of a product’ as essential since we are in the grain markets. It makes a huge difference for cultivations vs. imports or exports.”

The panel in this study deemed it very important to understand the product pricing system in China in order to produce and sell products in China. As panel members stated:

“We needed to learn how other companies sell quality at a premium price.”

“Because we sell at a high price, we can't waste time/resources going for volume. We need to identify those customers that care about quality and performance rather than just ‘best price.’”

In general, the panel deemed it very important to have a solid understanding of the Chinese markets. It highlighted the role of market information in agricultural business development in China for U.S. agricultural companies. As one panel member stated:

“It is essential to first understand the market dynamics by investigating it thoroughly. One will fail if they do not study this well, in both U.S. and China markets. This means that a company cannot make a two or three day visit to China to study markets and how they work, and then go back to the U.S. assuming that you know how markets work.”

#### 5.2.1.4. Political and Economic Climate in China

The panel deemed it very important to have a solid understanding of the Chinese political and economic climate. This is demonstrated by the fact that the Chinese government has created a political and economic climate that constantly adopts advanced agricultural technology from the rest of the world extremely fast and has actively promoted agricultural technology collaborations as well as technology exchanges with developed countries within the WTO framework (The Chinese State Council, 2001). Also, it should be noted that, since the open door policy in 1979, China has maintained a

very stable political and economical environment that is supportive of foreign business investment (Aubert & Dahlman, 2001).

The panel in this study agreed that it is very important to understand Chinese market dynamics and to be familiar with Chinese government regulations and incentives. For instance, in order to develop a successful high technology investment in the current Chinese market, U.S. agricultural companies should be aware of the policy of the Chinese Agricultural Science and Technology Development Program (2001-2010).

This study suggested that the Non-Chinese panel members had more desire to become familiar with Chinese government regulations and incentives compared to the Chinese panel members. This may be because the Chinese panel members felt they understood China's government regulations and incentives given their Chinese heritage, e.g. a potential strong *Guan-xi* with many organizations or individuals in their home country.

U.S. agricultural company seeking sources in China should understand the government regulations and economic climate as well as being confidence in the source of information before actually carrying out a business plan in China. As panel members stated:

“The government in China sets the tone for business. It is important that a U.S. company understands the institutions and how they interact.”

“Know the Chinese economic climate, Chinese government, and trade barriers between the U.S. and China are essential for the same reason that being that each has tremendous influence on decisions made to approve new regulated products.”

Overall, the Chinese political and economic policies are fundamental challenges when considering a China business development strategy. A panel member warned that if a U.S. agricultural company does not know the regulations and incentives, significant money and time can be lost with no recourse. Without understanding both the Chinese market requirements and government regulations, it can cause perceptions that may not be justified and frustration. For example, one vice president from a U.S. agricultural company experienced difficulty while applying for product registration in China and considered it to be a trade barrier issue. The following is an email from that vice president sent to this study:

“On a side note, we have been having a very difficult time in receiving registration for Product A (real name omitted, author’s note) in China.

This product has been initially registered, plus we re-registered the product 5 years later. During these registration processes, there were few problems. We have been doing our second re-registration and have had nothing but problems. Due to our lack of success of meeting all the Ministry of Agriculture’s requests, our registration has expired.

Therefore, we have been unable to sell into China for the past several months. Would you be able to make any recommendations to help us through this frustrating process? In my opinion, this is a trade barrier issue. Dr. B (real name omitted, author’s note) has been heavily involved here and has provided all the documentation requested, but it never seems to be enough. Right now, we do not know where to turn to solve this problem. Thank you for any help you may be able to provide.”

The panel in this study also agreed that it is very important to have the right individuals to help navigate the business climate in China. Therefore, through working with local Chinese people, U.S. agricultural companies should be able to become more familiar with the Chinese government regulations and incentives as well as having confidence in the source of information. As panel members stated:

“Having the right people on the ground in China is essential.”

“...is also essential, it goes back to having selected the right individuals to represent you locally and help navigate this business climate and culture.”

“Targeting products to customers requires one understand the customer and his needs. Product analysis should be holistic.”

“If you do not know the regulations and incentives much money and time can be lost with no recourse.”

#### 5.2.1.5. Product Advantages and Customer Service

Notably, the panel suggested that “providing customer service support for products in China” is an essential key component for successful business. As one panel member stated:

“Local service support for products sold in China, just like products sold in other countries is very important because it cuts down on repair time and costs.”

The panel also suggested that inviting Chinese partners to visit U.S. facilities is a very important key component. For U.S. agricultural companies that are currently developing business in China, inviting Chinese partners to the U.S. to visit facilities is an excellent way to be reciprocal and build relationships with customers. It also provides Chinese partners the opportunity to experience the U.S. culture and life while learning about advanced agriculture production technologies and organizational management style. Therefore, Chinese partners can have a better understand of the U.S. agricultural businesses and their operations. The Non-Chinese panel members in this study considered it more important to invite Chinese partners to visit the U.S. facilities compared to the Chinese panel members.

The panel deemed it very important to have U.S.-based senior management visit and speak with customers in China. The panel members agreed that senior management should travel to China to personally evaluate business potential and progress. The personal travel to China provides credibility and understanding between Chinese customers and U.S. senior management. Moreover, visiting China shows a genuine interest in the Chinese customers and promotes the opportunity for management to convey this understanding to U.S. executives back in the U.S. As one panel member stated:

“I still find that the biggest benefit we have is local customer contacts with good relationships and having top U.S. representative interaction with customers on a regular basis.”

Notably, the Non-Chinese panel members considered it more important to have U.S.-based senior management visit and speak with customers in China compared to the Chinese panel members. It should be noted that the importance rating of this key component was still at the low consensus level among the panel members at the end of this study. For instance, other panel members stated the presence of U.S. senior management is less important and less critical when a strong local management team represents the U.S. company. Further research should be conducted to reach a higher consensus level on the importance rating of this key component or to determine if its importance level differs for other companies.

The panel agreed that it is very important to develop product recognition in order to establish the brand in China. Reidenbach and Goeke (2006) stated that companies should target specific market segments with products and services that could be differentiated on the basis of market-perceived value in order to compete effectively in the growing and intensive global competition. As panel members stated:

“...establish the excellence of your products...”

“Brand names are very important to Chinese consumers.”

“... We sell a premium product at a higher price than competitors.  
Therefore it is impossible without brand recognition.”

“One learning we have had is that Chinese are wary of outside companies selling their products for gain to the company but not benefit to the people. When it is clear how this benefits the country, it is easier.”

The panel also agreed that it is very important to convince Chinese people to understand the benefits of U.S. technology. However, some panel members in this study felt that Chinese people understand U.S. technology and therefore do not need to be convinced. For instance, panel members stated:

“The Chinese already know about the value of U.S. technology.”

“I do not think it is much of a selling job to have the Chinese people understand the benefits of technology, U.S. or otherwise. Face to face interactions are essential when doing business in China.”

Furthermore, the panel also agreed that it is very important to study the difference between the current product and the proposed product to make sure the proper value is there in China. As one panel members stated:

“Value should be evaluated and recognized before deciding going into China. To educate from marketing stand point, is too expensive.”

Overall, as in international business development, to convince people in another culture and language of the same benefits of technologies in U.S. agriculture companies is necessary for their market globalization. Although people may argue that most times technologies are the same worldwide, there are no automatic words or expressions in another language or culture to communicate the same benefits of those technologies. As sometimes, it even costs more to convince people to buy agricultural products than it



does to produce them. Therefore, U.S. agriculture companies should convince Chinese people to understand the benefits of their technologies in China.

#### 5.2.1.6. Human Resources and Labor Costs

The panel considered two essential key components which include understanding the relationship between entering the Chinese marketplace and Chinese labor costs, and understanding the rising labor cost for manager-type employees in China. As panel members stated:

“For Chinese employees at relatively low levels, the "low cost geography" argument works (administrative and technical roles) . . . for manager level roles and up there is very little benefit and closing quickly.”

“I would not make business decisions based on labor costs alone ever. The culture differences are too great to think other business practices are constant enough only to look at costs.”

Also, one panel member pointed out that some materials imported from the mainland China are produced in other countries. The implication for U.S. agricultural companies is that either the Chinese labor costs is increasing or the China’s labor costs are expensive compared to other counties. Furthermore, as another panel member pointed out, U.S. agricultural companies must be aware that Chinese labor cost for manager-type employees is rising quickly. Knowing this is important for U.S. agricultural companies interested in retaining employees in China.

However, one panel member mentioned that wages are adjusted depending on the geographic market area and he insisted that:

“It is not essential, in my view, to totally ignore wage differentials. In the U.S., wages are adjusted depending on the geographic market area. I agree that entering the Chinese marketplace needs to be for reasons beyond wage differentials between U.S. and China. But one cannot totally ignore any inherent differences.”

The panel in this study also considered it very important for U.S. agricultural companies to know the background of their Chinese employees. As panel member stated:

“Knowing the background of any employee is paramount; failure to do so will likely result in situations that can significantly harm a company reputation and/or brand.”

“Because of the differences within China, knowing the background of a Chinese employee seems essential to understand what culture they operate in.”

Particularly, the panel deemed it very important to have a strong Chinese team in China for U.S. agricultural companies. As panel members stated:

“Key factor is a Chinese people on the ground.”

“The ability to hire Chinese employees that have an understanding or are willing to understand how an American company operates is also helpful attribute in the success of the business.”

During two previous, separate meetings with two executives from the panel who indicated that they currently have a business presence in China but whose businesses are struggling, the researcher found that one company employed a Malaysian person as the China country manager, and the other company did not have any Chinese employees locally in China. Other researchers stated that involving as many local people or facilitators as possible were a good idea for a company who wishes to develop a successful international business (Cui, 1998; Graham & Lam, 2003; March, 1980; Rugman, 2003; Wong & Maher, 1997).

Following the point of having a strong Chinese team in China for U.S. agricultural companies, panel members also suggested that it is very important that the management team of U.S. agricultural companies in China should create a solid educated workforce that is paid a fair wage. The U.S. agricultural companies should have empathy for the Chinese worker's needs. As panel members stated:

“A strong team is strong not so much from a dictatorial standpoint, but strong as good managers of people having empathy for the worker's needs and creating a solid educated workforce that are paid a fair wage.”

“The more educated the workforce the more mobile they become, but also the more valuable in creating innovation and programs that benefit your company; fair wages help ensure they are loyal.”

“Managers must care for their employees' welfare and treat them as valued persons and not dispensable animals or robots doing a chore.”

The panel in this study also suggested that it is very important for U.S. agricultural companies to hire employees that have expertise and knowledge in the science behind the products. As one panel member stated:

“Hire employees knowledgeable in the science concerned with the products. Hire employees in China or U.S. that have expertise and knowledge in the science behind the products and the knowledge of the use and management of the eventual plants and animals in China.”

However, one panel member considered job training more important in the long-term than having previous expertise and knowledge.

The hiring of Chinese Nationals that have education/training experience in the U.S. was not deemed as essential component by this study’s panel. One possible explanation that this study does not support the hiring of Chinese Nationals with education/training experience in the U.S. as an essential component may be because the panel members, while believing that the hiring of Chinese Nationals is important, do not believe they need a U.S. training. An education/training experience in China or other western countries may be deemed sufficient. One panel member stated that it is possible for a Chinese National to understand the U.S. culture by studying in China about U.S. customs and not by a direct education or training experience in the U.S. However, another panel member stated that cultural differences could not be learned from a book, so it is important to have key employees with direct experience in the other country. Even though it was rated collectively not to be an essential key component, four panel

members deemed the hiring of Chinese Nationals that have education/training experience in the U.S. as essential.

The researcher's personal experience with other U.S. agricultural businesses indicated that there are successful examples of promoting bilingual and bicultural employees of Chinese heritage with educations from western universities in their business, both in China and U.S. operations. In consultation with other U.S. agricultural organizations that were not related to this study, the researcher found that it is very important to hire Chinese Nationals with a U.S. based education/training experience. U.S. companies can benefit from the Chinese National's capability to create networks and communicate effectively between the U.S. companies and their potential Chinese partners. Previous studies also agree with the researcher's personal experience. Cui (1998) stated that bilingual and bicultural Chinese professionals with degrees from western universities are in demand for international business organizations in China. A bilingual and bicultural Chinese National who can communicate effectively across cultures can better facilitate business negotiations and therefore form partnerships (Graham & Lam, 2003).

U.S. agricultural companies can benefit Chinese Nationals' U.S.-based educational and technical training and maximize their worth to the company's China-based operations. Chinese Nationals educated and trained in the U.S. are assumed to be familiar with U.S. agricultural technology and management styles. There are other benefits U.S. agricultural companies can gain by hiring Chinese Nationals. As panel members stated:

“I believe that having strong Chinese nationals improves communication within the Chinese organization. We had lot of trouble using transplanted Americans.”

“Culturally, U.S. companies need to have on staff the Chinese Nationals that they are very comfortable and confident with to assist in navigating the various peculiarities of the local business customs and processes. Additionally, local sales and customer service staff is necessary to effectively communicate with potential clients and conduct the sales and sales management activities.”

In this study, the panel rated using interpreters or consultants to be moderately important. As panel members stated:

“Interpreters and consultants are your guides, at least initially.”

“If the people have language skills and the ones in the U.S. have some skills then the interpreters are primarily for the short term or specific project consultants...”

“At our company, we use local distributors or work directly with large integrators/feed manufacturers. We will not likely ever have our own staff in China. However, I have used a consultant on a per diem basis. This can be very helpful, but is quite costly, especially if you utilize quality personnel with much experience and valuable relationships in the marketplace.”

“Utilize interpreters or consultants’ seems useful when the company does not have direct experienced Chinese employees. If they do, this is less important.”

However, panel members felt an unbiased interpreter could keep them aware of nuances in meetings or important conversations and understand subtle differences that may apply to particular regions in China.

#### 5.2.1.7. Networks and Partnerships in China

The panel in this study considered establishing rapport with Chinese partners as an essential key component. Overall, the panel deemed it very important for U.S. agricultural companies to understand the influence of networks and partnerships in China and to be able to create trustworthy networks and partnerships. One panel member also stated that he tended to strongly disagree with the importance of the key components in the networks and partnerships in China group. However, after being on the ground in China he has found that it is critical to understand how the Chinese view the concepts of relationship, rapport, and friendship.

The relationship, rapport, and friendship mentioned above are known as *Guan-xi* in China. *Guan-xi* is similar to networks or personal connections in the U.S. In China, a strong *Guan-xi* helps to develop a strong partnership between two individuals (Alon & Shenkar, 2003; Fan, 2002a, 2002b, 2007; Graham & Lam, 2003; Lovett et al., 1999; Su & Littlefield, 2001). The Chinese utilize trustable *Guan-xi* to safeguard obligations with friends or acquaintances (Su & Littlefield, 2001). The Chinese place a premium on an individual's social capital within their group of friends, relatives, and close associates (Graham & Lam, 2003). *Guan-xi* has been identified as the most important key cultural factor for a foreign business organization wishing to do business in China (Abramson,

2005; Abramson & Ai, 1999; Davies et al., 1995; Fan, 2002b; Graham & Lam, 2003; Lovett et al., 1999; Sheng, 1979; Yeung & Tung, 1996). Therefore, the ability to create *Guan-xi*, networks, or personal connections in China and understand how they work is an asset for a U.S. business. As panel members stated:

“Networks are what drive systems, and business cannot be done effectively without personal connections and knowledge of the other's trustworthiness.”

“Solid relationships are based on common ground or an appreciation/respect for the other person's values, so you each know where you stand in various circumstances; one needs a solid basis on which to make decisions.”

It should be noted that other researchers have stated that Americans need to deliberately and strategically build trust in advance in order to form friendly relationships with their Chinese business partners. Without building trust in advance, in certain situations, the Chinese would not move forward on business programs. This is true even within China's business communities. Therefore, it is critical to recognize that a trust *guan-xi* must be formed between Chinese and American business partners before making any business deals.

Noted in this study, the panel emphasized the importance of having Chinese Nationals build networks and conduct effective communications between cultures. Other researchers have also stressed that business deals for Americans in China don't often succeed without a Chinese intermediary (Graham & Lam, 2003; Su & Littlefield, 2001).



The intermediary can find the personal links and *Guan-xi* to the target organization and therefore build business networks between the U.S. company and perspective Chinese partners via friendship or reciprocity. As panel members stated:

“China is a very complex society and I don't think I'll ever master that knowledge. I'm comfortable relying on my Chinese managers to understand - although I question whether any one person can get his arms around it in such a big and diverse country.”

“Understanding cultural interactions can prevent many problems and facilitate progress for the company.”

This study also suggests that Chinese government branches and universities are good sources to facilitate businesses development for a U.S. agricultural company. As panel members stated:

“Government is an important player, especially in China, for the success of the business and as such must be accounted for in any business plan.”

“I have been reminded many times to not underestimate the important of rapport with various levels of government officials. So, understanding how this relates to your particular business is important. “

“I find the more relationships you can cultivate in China, the better off you will be in business dealings. Knowing key contacts in both government and university settings can also be very helpful in allowing you to navigate the political waters we all face regarding regulatory and determining who the key decision makers are.”

Although this study's panel rated it very important for U.S. agricultural companies to partner with Chinese government branches, some panel members thought it would be less efficient by doing so. As panel members stated:

Problem with linking with government is that most government owned companies have reputation of poor quality, and poor attention to meeting client's needs."

"I want to use the Chinese government branches to facilitate my Chinese ventures and their development, but I do not prefer to have the government as my partner, if at all possible. The government generally has other motives which do not allow business efficiencies to be maximized."

Overall, the panel in this study felt the development of rapport with various levels of governmental agencies was inevitable for the facilitation of good business success. As panel members stated:

"There are many cultural norms in China that are somewhat different than U.S. This is especially true when dealing with government agencies regarding any regulatory approvals. A misstep with officials can mean delays or denials of products."

"Partnering with Chinese Government branches in my opinion may just be incorrect phrase. I'm not sure a U.S. company can really partner with them, but I think it is essential to have a good rapport with various levels of government agencies to facilitate good business success."

“Partner with Chinese government branches is not always possible. Nice if you can do it, but not a show stopper if you can't.”

According to the panel, the Chinese government, which is closely tied to Chinese universities, desires to verify the science for all new foreign technologies or product registrations. As a panel member stated:

“It seems that the Chinese government relies on the internal expertise of national scientists. Being able to understand, support, and connect with them appropriate for the culture is the key.”

Therefore, partnering with Chinese universities to help educate Chinese customers or consumers about the science associated with a product is beneficial for U.S. agricultural companies. Also, U.S. agricultural companies should recognize that many faculty in the Chinese universities are secondarily employed in Chinese companies. As one panel member acknowledged Chinese universities have significant impact on government actions when new technology is involved:

“One thing we have learned from the science side is that the Chinese government wants to verify the science themselves. However, in groundbreaking technology, it isn't always known how to do this. Because the government is tied to universities closely, getting to a base understanding of the science is needed through some dialogue or partnering.”

Notably, the Non-Chinese panel members in this study rated the importance higher on understanding the role of experts from Chinese universities compared to the Chinese panel members. It should also be noted that one Non-Chinese panel member in this study indicated that many of his customers distrust university research because they have evidence that the academics can be bought.

In this study, the role of Chinese universities to assist U.S. agricultural companies to find potential employees was only considered by the panel to be moderately important. The relatively low importance level on this key component may be because the Chinese panel members in this study rated the importance lower compared to the Non-Chinese panel members. However, many Non-Chinese panel members emphasized partnerships with Chinese universities. As some of the Non-Chinese panel members stated:

“...good knowledge of university programs and students to be in contact with good employee recruits.”

“In our field - animal science - the schools are the source spring of bright, eager talent. The best students from the best advisors are quickly snapped up.”

Panel members in this study also reported that it is becoming more important to be involved in and support agriculture-related professional organizations in China. As panel members stated:

“It is becoming more important to be involved in and supporting professional organizations in China. The world is interested to being involved in these groups and globally-based trade shows are becoming more accepted in China. Many of these are sponsored by professional organizations in China.”

“Believe a presence within professional organizations is key to staying abreast of current issues and shows you are willing to be part of what they are trying to achieve.”

“I may have overrated ‘participate in and support Chinese professional organizations’ but company loyalty in part is from their interaction with professional and local organizations. Support helps create commitment to the company.”

The panel only rated it moderately important for U.S. agricultural companies to utilize distributors in China. Different opinions among panel members still exist on this type of business partnership in China. As panel members stated:

“Distributors (trusted, quality) can multiply your sales if they are good.”

“Using distributors potentially means loss of control over the product integrity – particularly intellectual property rights.”

“I think it depends on your business and type of product. Ours requires a complex, slow technical sell, and we sell at a price premium over competitive products based on quality. Distributors are not effective except as door openers and bridges. We do the selling with direct sales representatives.”

Overall, the study's panel deemed it very important for U.S. agricultural companies to identify the key values and common ground of partners in China. As one panel member stated:

“It is a general philosophy for us to never enter a new and poorly understood business climate without a local partner that has similar objectives and motivations as do we.”

#### 5.2.1.8. Chinese Business Practices

The panel in this study considered developing long-term business goals and having face-to-face interactions when doing business in China as two essential key components.

Overall, the panel in this study deemed it essential for U.S. agricultural companies to develop long-term business goals in China. Panel members that had traveled to China and had done business in China recognized that the Chinese government and its recent economic development policy are intended to lead to a long-term healthy economic growth. Any business organizations intending to place short-term economic benefits over harm to the environment and human health in China will face serious punishments (Chinese Law, 1994; The Chinese State Council, 2001). In 2008, China's government vowed "serious punishment" after a major dairy recall of milk powder linked to a rash of illnesses in infants (CBS News, 2008). China has suffered a string of safety incidents and those incidents having damaged the confidence in the safety of Chinese goods prompted

a shake-up of the country's regulatory system in an effort to reassure consumers. The Chinese society also recognizes and welcomes all business investments that are long-term in nature and pose no threat and harm to the environment and human health. As one panel member stated:

“One consequence of the widespread melamine contamination of Chinese food products is that from a food safety perspective, Chinese origin food products are suspect. Chinese consumer and foreign customers have lost confidence in the safety of Chinese food products, unethical Chinese business practices, and the failure of government regulation. Ingredients from foreign sources that come from a strong food safety regulatory and business integrity are going to be increasingly important to win the confidence of Chinese consumers and for any of those products to enter international markets.”

Furthermore, the panel in this study considered it essential for U.S. agricultural companies to have face-to-face interactions when doing business in China. Face-to-face interactions should assist U.S. business people in reading the moods, intonations, facial expressions, and body language of potential Chinese business partners during business negotiations. Zhao (2000) and Adler et al. (1992) stated that Chinese businesspersons wish to have better knowledge of the individuals with whom they are contemplating doing business through more face-to-face interactions while U.S. businesspersons like to sign agreements and get started with the task with or without face-to-face meetings. Therefore, it is possible that negotiations will not proceed until the Chinese business people are satisfied that a harmonious working relationship can be established. In China,

a successful meeting in a social setting such as during a dinner gathering is one of the most popular means of negotiating and building a personal relationship and therefore a business partnership (Leung & Yeung, 1995). For the Chinese, nonverbal communication during face-to-face meetings can be more important in establishing agreements than verbal and written communication (Graham & Lam, 2003). It is also customary for the Chinese to reach agreement on general principles during negotiations at face-to-face meetings and moving to more specific issues at a later stage. As one panel member stated:

“Face-to-face interactions are essential for doing business in China, and this is part of effective communication which must be at and between all levels of management and production, as well as mutual respect.”

Although the panel, as a group, rated it essential for U.S. agricultural company to conduct face-to-face interactions when doing business in China, the Chinese panel members rated the importance lower compared to the Non-Chinese panel members. This may be because the Chinese panel members felt their command of the Chinese language and culture skills negated the needs for face-to-face interactions when doing business in China.

The panel deemed it very important to have a good understanding of China’s business rules and government roles, and to communicate effectively with the people who actually do the work in China. As panel members stated:



“If you do not understand the rules you are open to abuse or honest error that is costly or disastrous.”

“After learning the hard way by not understanding the way the government operates. For example, in Chinese culture, hierarchy dictates that the word of a junior official does not have to be held up by a senior official. That is a big thing to understand when getting promises.”

“We sell in highly regulated industry - ingredients to feed animals. Nothing gets done if the regulators at multiple levels are not comfortable with us. They can be quite arbitrary, so relationship is more important than facts.”

“In regards to strong ties, this is just a point again of understanding what the government is trying to accomplish for their country in regards to new products.”

It should be noted that the Non-Chinese panel members deemed it more important to have strong ties with China’s regulatory officials compared to the Non-Chinese panel members. Having strong ties with China’s regulatory officials should provide better opportunities for U.S. agricultural companies to be familiar with updated government regulations and incentives related to agriculture development. Non-Chinese panel members had more desire to be familiar with Chinese government regulations and incentives compared to the Chinese panel members.

It was noted and emphasized by the panel in this study that U.S. agricultural businesses must study how and why Chinese businesses and government operate the way

they do before making any major decisions in China. This may be because some panel members perceived the Chinese businesses and government operations to be different than in the U.S. environment. As panel members stated:

“A working knowledge of institutions is vital for success in China.”

“You should know how government operates and what their regulations before you get into China for business development.”

“The Chinese government has a much greater role/impact on business decisions than in the U.S. There is also a much closer relationship between government and business - including relatives of government officials that run businesses.”

Misconceptions based on cultural differences often bring about the questioning of the “ground rules” for some Chinese business practices. While U.S. agricultural business people sometimes perceive that unethical businesses practices exist, they may simply be based on cultural misunderstandings. Therefore, it is the responsibility of the U.S. agricultural companies to identify good Chinese partners and adopt Chinese business practices. Also, panel members stated:

“Everything changes so quickly that plans must be flexible and fluid. Keep the goal and your core values steady as a rock, but be ready to change the approach many times if needed.”

“Not all decisions are made on science and data, regardless of the country.”

The panel rated very important the need for sound infrastructures in China. However, the panel only rated moderately important the need for having raw materials supplied locally in China and having facilities in China near customer bases and utilities. As panel members stated:

“Unless you are manufacturing your products in China, I do not believe it is essential to use Chinese raw materials.”

“While not essential to be near customers (witness the sales from China to our big box stores in the USA), production facilities can cut costs if at least some are located near customers and utilities depending on the cost structure.”

It should be noted that the Non-Chinese panel members rated the importance level lower on having raw materials supplied locally in China compared to the Chinese panel members. Whether raw materials could be supplied locally in China has significant importance because the cost of the transportation and handling could be high and complicated in China, especially for businesses dealing with international buyers and sales. Chinese panel members may know the difficulties of acquiring raw materials in China or internationally when long distances are involved versus the relatively mature transportation and custom system in the U.S.

#### 5.2.1.9. Legal Counsel and Intellectual Property

The panel in this study considered it essential for U.S. agricultural companies to protect their intellectual property rights in China. This study suggests that the panel thinks it is vital to understand the importance of protecting the intellectual property rights or product brand names in China. As one panel member stated:

“I would also carefully assess areas of intellectual capital (patents and key processes) . . . these are areas that at this time do not have the same level of governance as the U.S. or EU.”

Intellectual property issues are becoming increasingly important and are more often enforced since China joined the WTO in 2001. The Chinese government has assured foreign investors of the protections afforded within the WTO framework. In consultation, not related to this study, the researcher found that the issue of the potential loss of intellectual property rights is a significant concern for some agricultural companies. It is the researcher’s belief that this concern has hindered U.S. business development in China. As one panel member stated:

“Speed to the Chinese market is sometimes more important than intellectual property issues. Also in many cases you must divulge information that is in many countries unnecessary and may be inappropriate to do.”

In general, the panel considered it very important to understand the China’s legal system and seek help from Chinese legal experts. However, as a group, the key components in the legal counsel and intellectual property group were considered the least important compared to the other eight key component groups. This is demonstrated by one panel member who pointed out that the legal system overall is not a useful business tool for U.S. agricultural companies given the current immaturity level of China’s legal system. Other researchers also agreed with the current study that future economic systems worldwide will be more based on trust rather than depend on an expensive and conflict oriented legal systems (Lovett et al., 1999).

However, other panel members in this study were still concerned about legal issues in China based on their organization’s business. As one panel member stated:

“Our company has been in several legal battles so I guess I am a little sensitive about this.”

#### 5.2.2. Training Topics that U.S. Agricultural Companies Should Consider When Entering the Chinese Market

In this study, the topics of ethics and trust along with Chinese markets were considered by the panel to be two essential training topics for U.S. agricultural companies

when entering the Chinese market. The other seven topics were considered as very important by the panel for inclusion in a training program that could be utilized by U.S. agricultural companies when entering the Chinese market. Those seven topics are: language and culture; political and economic climate in China; product advantages and customer service; human resources and labor costs in China; networks and partnerships in China; Chinese business practices; and legal counsel and intellectual property in China. It should be noted that the results in this study indicated that some of the key components or grouped key components are important for U.S. agricultural companies when entering the Chinese market but the importance of their requirement for training are not necessarily the same.

The panel deemed it essential to have training on ethics and trust for U.S. agricultural companies when entering the Chinese market. It should be noted that the importance of all four key components in the ethics and trust group were also considered as essential by the panel. Consequently, this study emphasized the need for training on the moral characteristics and trust considerations across cultures in international agricultural development. If moral characteristics are taught to industry people interested in international agricultural development, they should include honesty, integrity, respect, accountability, fairness, tolerance, and openness, as well as how to recognize and respect ethical differences across cultures. The merit, family values, social harmony, and mutual respect and trust that exist in the Chinese Confucian culture should be valuable in China as well as in the U.S. Therefore, special training for the U.S. agricultural companies to understand those ethical codes must be emphasized.

The panel highlighted an essential need for training to gain knowledge and information of the Chinese markets for U.S. agricultural companies when entering the China. Although all six key components in the Chinese market group were rated to be very important, training on the Chinese markets was considered essential by the panel. This is consistent with the goal of Chinese market development by U.S. agricultural companies. U.S. agricultural companies must to understand the Chinese customers and their needs, China's market dynamics, and economic transition occurring in China in order to be successful in China. This really should be the motivations for all U.S. agricultural companies.

In general, according to the panel in this study, a training program should cover the following areas: 1) Chinese history and basic language; 2) cultural aspects of working and living in China; 3) Chinese cultural training on the norms of business; 4) practices in communication and hierarchy for Chinese society; 5) building relationships with other companies; 6) the hiring of Chinese Nationals; 7) agricultural technology applications in China; 8) the economic transition occurring in China; and 9) the Chinese regulatory, finance, and legal systems related to the industry. Additionally, as emphasized by the panel, there are many peculiarities of doing business in China and the more a foreign organization understands and tries to adapt to or have an appreciation of these things, the more successful that foreign organization will be in establishing business relationships. If training must be conducted for a U.S. agricultural company when entering the Chinese market, the topics must be as diversified as possible.

The panel in this study deemed it very important to have training on how to build networks and partnerships with others in China. Leung and Wong (2001) also suggested

that cultural training should be given to foreign business people on the relationship and *Guan-xi* dimensions so that they know how to interact with their Chinese counterparts, create dynamic relationships, look for business opportunities, and protect themselves in an unfamiliar cultural environment. It should be noted that, although this study considered training on the networks and partnerships in China as very important, the panel members rated numerically higher on the mean score of the networks and partnerships in China than that of the Chinese markets, which was considered to be an essential training topic. Therefore, the typical U.S. business approach – market driven – should be combined with *Guan-xi* or relationship building with potential or existing Chinese partners. U.S. agricultural companies should be taught to focus on how to build networks and partnerships in the Chinese society when creating business opportunities in China. Some of the techniques that would strengthen *Guan-xi* with Chinese partners should be taught to U.S. agricultural companies by seasoned Chinese Nationals who are embedded in the Chinese Confucian culture.

Most important, the panel in this study indicated that U.S. agricultural companies must be taught to recognize the benefit of having Chinese Nationals with their organizations. Chinese Nationals mastery of the Chinese language and culture permits effective communication leading to development of strong trusting relationships between U.S. and Chinese partners. Therefore, a training program must emphasize the benefits of hiring Chinese Nationals as a U.S. company employee.

The training topic associated with the product advantages and customer service was rated very important and reached high consensus among the panel in this study. Therefore, U.S. agricultural companies should be trained on how to develop product



recognition in China and how to help Chinese people understand the benefit of their products and technology.

Regarding the training resources, this study provided examples of resources for U.S. agricultural company to conduct a training program related to business development in China. According to the study's panel, U.S. agricultural companies could choose to utilize internal or external resources to conduct trainings. Those resources could include but not be limited to the U.S. Department of Commerce along with other legal firms and consulting groups from the U.S. or China. Also, as an international business training and education organization, the Centers for International Business Education and Research (CIBER) can provide instruction in foreign languages and culture critical for U.S. business in the global aspects of trade and commerce. CIBER is located at 31 universities across the U.S. and can serve as a great resource for the business communities on international business issues. The educational programs for business at CIBER may include, for example, export training, market information, management reviews, and response strategies to increased international competition (CIBER, 2008). However, some of CIBER's training material development is not specifically based on the agricultural context and would not serve the training needs for the broad agricultural industry without guidance of experienced trainers with agricultural knowledge. Therefore, U.S. agricultural industry should use CIBER's educational programs with caution.

As emphasized by the panel members in this study, U.S. agricultural companies should recognize the benefit of having Chinese Nationals with their organizations and rely upon the Chinese Nationals as an internal resource for their business in China. The

Chinese Nationals could conduct basic employee training within their organizations. In this case, a versatile Chinese National, with considerable experience in Chinese agriculture and embedded in the traditional Chinese culture, is needed for a more resourceful training.

In this study, more than half of the panel members stated that they did not have training programs related to “how to do business in China.” Therefore, the potential needs are great for training material and program development that are targeted on “how to do business in China” for U.S. agricultural companies.

Overall, the training topics and training suggestions of this study may provide U.S. agricultural industries with evidence to strategically develop educational curriculum and materials that could prepare and strengthen U.S. agricultural business development in China. An on-site face-to-face training program with interested U.S. agricultural companies may be the most effective way to deliver the training topics generated in this study. However, other means to deliver training programs to interested U.S. agricultural companies also could be effective including voice PowerPoint files or YouTube clips through long distance learning.

The researcher’s personal consulting experience with U.S. agricultural companies revealed a need for increased business training by U.S. companies pursuing business expansion in China. Failure to provide training often leads to unprepared expatriate staff being sent to China by the company’s inexperienced management teams. Foreign companies without question must depend heavily on expatriate staff for their China-based operations because they are importing into China their own technology, their own management styles, and their own economic and financial philosophy. Choosing an

expatriate staff that is unprepared for what lies ahead in China can be disastrous both to the person chosen and to the company.

The researcher's personal consulting experience with U.S. agricultural companies during the past highlighted the importance of professional trainings on issues related to Chinese business development. Professional trainings on Chinese business development for management team members in a U.S. agricultural company are effective only if the management team knows particularly what they are looking for based on detailed information. Periodical participation in Chinese industry gatherings and professional organizations are required for management team members to personally gain updated information related to Chinese agriculture changes. For all other employees in a U.S. agricultural company, professional trainings on Chinese business development should provide the business rationales and interest. This should motivate the support force within the whole company to work together to assist with their company's Chinese business development.

### 5.3. Implications

There is growing business collaboration between the U.S. and China as a result of greater global economic integration. With this growing demand for business collaborations comes a need to thoroughly identify and understand the components that affect those collaborations. This study identified those key components and placed a value upon each. The key components generated in this study were all rated by the panel as important at various levels and should be included in an educational training program

targeted at U.S. agricultural companies wishing to successfully develop a Chinese business partnership. Utilizing the key components generated in this study allows companies to prioritize limited budgets on those training programs deemed most important. Ideally a training program would include all the key components but realistically this may not be feasible in all cases. Educating company employees to be internationally competent could be beneficial to companies wishing to conduct business in China.

For an employee training program, U.S. agricultural companies wishing to successfully develop a Chinese market are strongly encouraged to pay close attention to the key components that were considered as essential by the panel in this study. The researcher recognizes that all business collaborations have their unique characteristics and thus employee training programs should always be matched to the company's individual needs. Tailored training programs are potentially more likely to meet both the needs of the U.S. companies and their Chinese partners as each will better understand each others' business practices and cultural customs.

This study highlighted the needs of teaching specific information about the Chinese language, culture, business ethics, trust, and building *guan-xi* (relationships) with Chinese partners for U.S. agricultural companies who are in or about to enter the Chinese market. The Chinese respect someone who makes an effort to know their language and respect their culture and ethics, e.g., able to say some basic greeting Chinese words in Mandarin and give business card to the Chinese people using both hands. The Chinese are interested in building rapport with their potential partners before actual business relationships or business deals are made. The rapport building process may take multiple

face-to-face meetings that may involve many social activities such as nice dining gatherings or local city site-seeing arrangements.

This study identified the importance for U.S. agricultural companies to invest resources to hire highly qualified employees for key positions in their China operations, who are competent in agricultural technical knowledge and intercultural understanding. This study also implied that U.S. agricultural companies should be willing to invest resources to provide product service support in China and to develop strong relationships with the Chinese agricultural universities and professional organizations in order to successfully promote technology transfer in China.

The role of Chinese nationals should be emphasized because Chinese nationals are able to assist U.S. agricultural companies in obtaining direct Chinese cultural experience and naturally building *guan-xi* with Chinese partners. Chinese nationals also play important roles in understanding of Chinese business ethics and business practice as well as developing a strong trusting relationship with Chinese partners. Having a Chinese national on the team should boost the confidence level of U.S. agricultural companies who are in or about to enter the Chinese market. It is especially important to hire Chinese Nationals with a U.S.-based education/training experience. While it is importance to have Chinese Nationals on the team for their understanding of the Chinese culture and system it is likewise important that they understand the United States' culture and system. Thus Chinese Nationals educated and trained in the U.S. are a plus as it is assumed they will be familiar with U.S. agricultural technology and management styles as well as U.S. culture. For instance, U.S. companies can benefit from the Chinese National's capability to create networks and communicate effectively between the U.S.

companies and their potential Chinese partners. U.S. agricultural companies can also aid in the Chinese National's U.S. -based educational and technical training to increase their effectiveness as an agent between the U.S. and Chinese partners. Furthermore, based on the real international business experiences of the agricultural companies surveyed, this study provided the foundation and guideline for development of teaching materials that could develop globalization and entrepreneurship education in agriculture. The foundation and guideline formed in this study can be utilized to create educational programs to meet the demands of a global business economy.

Moreover, intercultural training is no longer just for business organizations, it can be utilized anywhere that people from diverse cultures live and work together, including schools and communities. There are growing educational collaborations at the K-12 and higher education levels between the U.S. and China. These educational collaborations could include student and teacher exchange programs at the K-12 level as well as study abroad, teaching, and research collaborating programs at the collegiate level. Therefore, some of the key components generated in this study may have applications that could prepare and strengthen the development of educational collaborations between the U.S. and China. The findings of this study may provide more meaningful guidelines or applications for U.S. educational organizations to identify trustworthy partners and develop strong trusting relationships with Chinese educational organizations by understanding cultural differences between the U.S. and China.

#### 5.4. Recommendations

The following recommendations are based on the findings of this study in the context of the broader research literature. These recommendations are offered to guide training practices for U.S. agricultural companies wishing to develop a successful business in China.

- 1) All U.S. agricultural companies wishing to develop a collaborative Chinese-based business should conduct an employee training program, which includes, at minimum, the 14 key components rated as essential by the panel in this study;
- 2) For those key components not listed as essential, separate and/or re-group them, based on the special needs of a U.S. agricultural company or other organization, into training topics that should include some or all of the following: language, culture, relationships, ethics, trust, human resources, wages, labor costs, networks, partnerships, university relationships, Chinese business practices, raw materials/infrastructure/facility, product advantages, customer service, Chinese markets, political climate, Chinese economic climate, legal counsel, and intellectual property; with particular focus on topics of ethics, trust, language, culture, human resources, *guan-xi*, relationships, networks, Chinese business practices, and Chinese markets;
- 3) Conduct training for U.S. agricultural companies by utilizing external resources if internal resources (personal or expertise within an organization) are limited;

- 4) Provide Chinese employees in U.S. operations/companies with an appropriate training program; emphasize different training topics and programs between Non-Chinese and Chinese employees;
- 5) Develop a knowledge of the Chinese business culture or “business ground rules” because there are many cultural norms in China that are somewhat different than U.S.; this is especially true when dealing with government agencies regarding any regulatory approval: a misstep with officials can mean delays or denials of product registration and sales;
- 6) Have key U.S.-based international employees gain a basic level of knowledge of Chinese language and culture; the Chinese respect individuals who attempt to learn their language and respect their culture, e.g., able to say some basic greeting Chinese words in Mandarin and give a business card to the Chinese people using both hands;
- 7) Build trust, rapport, *guan-xi*, and friendship with Chinese partners first; do not try to go too fast in developing the business partnership without a trusting relationship as business is conducted among friends in China;
- 8) Hire Chinese Nationals with a U.S.-based education/training experience.
- 9) Have a strong Chinese team to create networks and establish rapport in China. Utilize Chinese Nationals, who understand the U.S. culture and language along with having knowledge of the U.S. agricultural company’s subject matter so they may communicate effectively, culturally and technically, between the U.S. agricultural company and their potential Chinese partners. Hire Chinese Nationals who have an understanding or are willing to



understand how an American company operates is a helpful attribute in the success of a business;

- 10) Support both U.S. and Chinese university programs to act in the recruitment of well educated and experienced Chinese employees for business development in China. Industry-based university programs often serve to promote products or services of U.S. agricultural companies;
- 11) Develop rapport with faculty from Chinese universities and research institutions along with government agencies to promote new technologies and support product registration, and therefore facilitate business partnership development with other partners in China;
- 12) Participate in professional organizations in China where U.S. agricultural companies can promote new technologies, build networks, and identify potential Chinese business partners;
- 13) Investigate the characteristics of the Chinese market so that an appropriate niche that fits the U.S. agricultural company can be identified. The local benefit of U.S. products in China must be communicated to the Chinese population, otherwise there is reluctance to accept products from other countries;
- 14) Be confident to apply new technologies and develop business in China; the Chinese value that the collaborations between U.S. and China should be based mutual benefit and therefore there will be markets and profits for U.S. agricultural companies who have new technologies and utilize them to develop market in China.

### 5.5. Future Research Suggestions

The following suggestions for future research are based on the findings of this study and are intended to provide more information for U.S. agricultural companies wishing to develop a successful business in China.

- 1) Future research should identify the numerical importance of each of the 63 key components generated in this study when compared. This would enable U.S. agricultural companies with limited resources to conduct training related to the most important key components;
- 2) Some of the key components generated in this study have practical applications that could prepare and strengthen the development of business collaborations between the U.S. and China immediately; however, other key components are still lacking training details and should only serve as guidelines. Consequently, additional research to identify training details of those key components would strengthen the training curriculum and programs;
- 3) Future research should seek to evaluate the effective of various training modules that can be prioritized for different audiences, e.g. Non-Chinese and Chinese employees, in the U.S. agricultural companies. U.S. agricultural companies could select training materials and programs and have a different training focus targeted separately for Non-Chinese and Chinese employees;
- 4) Future research should evaluate the effectiveness of various innovative teaching methodologies, e.g., a case study with a U.S. agricultural company, in the training programs developed.

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## APPENDICES

## Appendix A. Purdue University IRB Approval Letter



HUMAN RESEARCH PARTICIPANTS PROTECTION PROGRAM  
INSTITUTIONAL REVIEW BOARDS

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**To:** ROGER TORMOEHLEN  
AGAD 215

**From:** RICHARD MATTES, Chair  
Social Science IRB

**Date:** 05/09/2008

**Committee Action:** **Exemption Granted**

**IRB Action Date:** 05/01/2008

**IRB Protocol #:** 0804006773

**Study Title:** An Educational Analysis of China Business Development Strategies by U.S. Agriculture Companies: A Delphi Study

The Institutional Review Board (IRB), pursuant to Federal regulations, 45 CFR 46.101 (b), has determined that the above-referenced protocol is exempt category (2).

If you wish to revise or amend the protocol, please submit a new exemption request to the IRB for consideration. Please contact our office if you have any questions.

We wish you good luck with your work. Please retain a copy of this letter for your records.

## Appendix B. First Round Cover Letter

Date:

Dear participant:

Thank you for your willingness to participate in a study to identify key business development components critical for U.S. agricultural companies conducting business in China. Your personal and professional experience and expertise will greatly enhance quality of the study.

To identify the key components that will lead to development of a business development and education model, a group of experts including U.S. educators, government policy makers/service agents, and industry leaders will be utilized. Your involvement as part of this group is crucial to successful identification of the key components for U.S. agricultural companies conducting business in China.

To accomplish the goals of this research project, the Delphi method described by Linstone and Turoff (1975) will be utilized. The Delphi method, describing the use of expert opinions or perceptions, was invented and developed by the RAND Corporation in the early 1950s. This is a method of generating ideas and facilitating consensus through multiple surveys among individuals who have special knowledge to share.

This study is anticipated to be conducted over a series of four rounds. The researchers will contact you four times during the study. It will take approximately 10 minutes to complete each survey questionnaire. No face-to-face meeting is required. In the first round, you will be asked to respond to a survey questionnaire. The survey questionnaire will include one open-ended question related to the key components for development of an effective China business by U.S. agriculture companies. You will also be asked to provide personal data such as ethnic and educational background, and international experiences. In the second, third, and fourth rounds, the key components generated from the first round will be evaluated using a five-point Likert scale from Not Important (1), Slightly Important (2), Moderately Important (3), Very Important (4), to Essential (5). During each round (2-3 weeks interval), you will be asked to complete an electronic web-based version survey. Directions for completing and submitting the online survey will be provided prior to each round.

Currently included is a website link for the survey questionnaire for the first Delphi round. Please follow this link (<HTTPS://WWW.YDAE.PURDUE.EDU/CHINA/>) to a web-based version. This is a secure and confidential website and your unique ID number for the website is (...).



Please complete and return your questionnaire today or no later than (date). All data, including your responses, and personal and organizational identities, will be kept confidential. Upon completion of the study, the results and findings will be shared with you. Participation in this research is fully voluntary.

Again, I appreciate very much your participation and valuable input. Please feel free to contact me at, Office: 765-496-6123; Fax: 765-496-1152; or Email: [PENGJIAJ@PURDUE.EDU](mailto:PENGJIAJ@PURDUE.EDU) with any questions and concerns that you may have.

Sincerely,

**Jiajiang Peng**, PhD Candidate

**PhD Committee Members:**

**Dr. Roger Tormoehlen**, Professor & Head  
Youth Development & Agricultural Education  
Purdue University

**Dr. Brian Talbert**, Professor  
Youth Development & Agricultural Education  
Purdue University

**Dr. Mark Russell**, Professor  
Animal Sciences  
Purdue University

**Dr. Pamala Morris**, Associate Professor & Assistant Dean  
Youth Development & Agricultural Education  
Purdue University

**Dr. Todd Applegate**, Associate Professor  
Animal Sciences  
Purdue University

## Appendix C. First Round Survey Instrument

***Organization Code Number:*** (IDENTIFICATION NUMBER)

**Research Topic:**     **An Educational Analysis of Chinese Business Development Strategies by United States Agricultural Companies: a Delphi Study**

***First Round Survey Questionnaire***

*(You can be assured that all data, including your responses, and personal and organizational identities, will be kept confidential. Participation in the current research is fully voluntary and you can choose to stop your participation at any point during the study.)*

1. In your opinion, what are the **key components** (or **factors**) U.S. agricultural companies should consider when entering the Chinese market? *(Please **describe** the key components (or factors), such as a familiarity with language, knowledge about business culture, having good networks, conducting effective communication, building mutual trust, hiring appropriate employees, etc).*

2. Has your organization had any training programs related to 'how to do business in China'? (*Mark **all** that apply and/or fill the blank*)

YES \_\_\_\_\_

If **YES**,

Utilized internal resources? \_\_\_\_\_

Utilized external resources? \_\_\_\_\_

Please list the training topics (key components) based on your knowledge?

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NO \_\_\_\_\_

*Please answer the following demographic questions if **applicable**:*

3. Who is your **employer**? (*Mark **one***)

\_\_\_\_\_ Company

\_\_\_\_\_ Government

\_\_\_\_\_ University

**Other**, please specify \_\_\_\_\_

4. What is the primary **product** focus of your organization? (*Mark **one***)

\_\_\_\_\_ Biotech

\_\_\_\_\_ Equipment

\_\_\_\_\_ Feed or Premix

\_\_\_\_\_ Livestock

**Other**, please specify \_\_\_\_\_

5. What is the primary **activity** focus of your organization? (*Mark one*)

- \_\_\_\_\_ Consultant  
 \_\_\_\_\_ Distributor  
 \_\_\_\_\_ Producer or Manufacturer

**Other**, please

specify\_\_\_\_\_

6. What is the primary **animal** focus of your organization? (*Mark one*)

- \_\_\_\_\_ Beef/Dairy  
 \_\_\_\_\_ Poultry  
 \_\_\_\_\_ Swine

**Other**, please specify\_\_\_\_\_

7. Please describe your **job responsibilities** (or **job title**):

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8. Choose the one **ethnic background** that you most identify with: (*Mark one*)

- \_\_\_\_\_ Chinese  
 \_\_\_\_\_ Non-Chinese Asian  
 \_\_\_\_\_ Caucasian/White  
 \_\_\_\_\_ African American  
 \_\_\_\_\_ Hispanic/Latino  
 \_\_\_\_\_ Native American  
 \_\_\_\_\_ Multi-ethnic

**Other**, please specify\_\_\_\_\_

9. What is the highest level of **education** you have completed? (*Mark one*)

\_\_\_\_\_ Bachelor's degree

\_\_\_\_\_ Master's degree

\_\_\_\_\_ Doctorate

**Other**, please specify

\_\_\_\_\_

10. Have you been to mainland China, Hong Kong, Macau, or Taiwan? (*Mark one and/or fill the blank*)

YES \_\_\_\_\_

If **YES**, how many total visit(s) have you made to these places?

\_\_\_\_\_

NO \_\_\_\_\_

*The following two questions are **ONLY** for individuals associated with a company:*

11. What are the **annual sales** of your company (or agricultural division)? (*Mark one*)

\_\_\_\_\_ \$500 million and above

\_\_\_\_\_ \$200 million < \$500 million

\_\_\_\_\_ \$100 million < \$200 million

\_\_\_\_\_ \$50 million < \$100 million

\_\_\_\_\_ \$10 million < \$50 million

\_\_\_\_\_ \$1 million < \$10 million

\_\_\_\_\_ Less than \$1 million

12. Does your company **currently** or did it **previously** have a business presence in China? (Mark **all** that apply)

YES \_\_\_\_\_

If **YES**,

Currently has? \_\_\_\_\_

Previously had? \_\_\_\_\_

Is/was it successful in your opinion? YES \_\_\_\_\_;

NO \_\_\_\_\_

NO \_\_\_\_\_

If **NO**, is your company planning to establish a business presence in China? YES \_\_\_\_\_; NO \_\_\_\_\_

**Thank you for your help!**

*Please return your questionnaire in envelope or FAX (765-496-1152) to:*

Jiajiang Peng

Department of Youth Development & Agricultural Education

Purdue University

Agriculture Administration Building, Room 219

615 W State Street

West Lafayette, IN 47907-2053

## Appendix D. Second Round Cover Letter

Dear participant:

Thank you very much for your time and your expertise to help identify the key components for the Chinese business development by the U.S. agricultural companies. Your previous participation and input is a valuable asset to the international business development by the U.S. agricultural industry.

Currently included is a website link for the survey questionnaire for the Second round. Please follow this link (<HTTPS://WWW.YDAE.PURDUE.EDU/CHINA/>) to a web-based version. This is a secure and confidential website and your ID number for the website is: (...) (Please type the ID in the blank field.)

Please complete and return your questionnaire today or no later than date (actual date omitted).

During this round, the importance of the key components generated from the first round will be evaluated using a five-point Likert scale from Unimportant (1), Slightly Important (2), Moderately Important (3), Very Important (4), to Essential (5).

Again, I appreciate very much your participation and valuable input. Please feel free to contact me at, Office: 765-496-6123; Fax: 765-496-1152; or Email:

[PENGJIAJ@PURDUE.EDU](mailto:PENGJIAJ@PURDUE.EDU) with any questions and concerns that you may have.

Sincerely,

Jiajiang

Jiajiang Peng

PhD Candidate

Department of Youth Development & Agricultural Education, Purdue University

Agriculture Administration Building, Room 219

615 W State Street, West Lafayette, IN 47907-2053

Office Phone: 765-496-6123; Fax: 765-496-1152

Email: [PENGJIAJ@PURDUE.EDU](mailto:PENGJIAJ@PURDUE.EDU)

## Appendix E. Second Round Survey Instrument

**Organization Code Number: (IDENTIFICATION NUMBER)**

**Research Topic:                   An Educational Analysis of Chinese Business Development Strategies by United States  
Agricultural Companies: a Delphi Study**

### *Second Round Survey Questionnaire*

*(You can be assured that all data, including your responses, and personal and organizational identities, will be kept confidential.  
Participation in the current research is fully voluntary and you can choose to stop your participation at any point during the study.)*

**Directions:**

**Key components (or factors)** that U.S. agricultural companies should consider when entering the Chinese market have been broken down into nine sections. Please mark the one appropriate degree of importance, **Unimportant (1), Slightly Important (2), Moderately Important (3), Very Important (4), and Essential (5)**, for each of the following key components. Spaces are provided at the end of each section for additional key components.

<b>In your opinion, how important are the following key components for a U.S. agricultural company when entering the Chinese market:</b>	<b>Unimportant</b>	<b>Slightly Important</b>	<b>Moderately Important</b>	<b>Very Important</b>	<b>Essential</b>
	<b>(1)</b>	<b>(2)</b>	<b>(3)</b>	<b>(4)</b>	<b>(5)</b>
<b>1. <u>Language and culture:</u></b>					
1) Have key employees in China be able to speak and understand both Chinese and English.	1	2	3	4	5
2) Have key U.S. based international employees gain a basic level of knowledge of Chinese language.	1	2	3	4	5
3) Recognize that Chinese culture is different from that of the U.S.	1	2	3	4	5
4) Have knowledge of the way Chinese culture affects business transactions.	1	2	3	4	5
5) Hire employees that demonstrate an understanding and appreciation of both the U.S. and Chinese culture.	1	2	3	4	5
<b>Additional key components:</b> _____					
<b>2. <u>Human resource and labor cost in China:</u></b>					
1) Hire Chinese Nationals that have education/training experience in the U.S. as key employees.	1	2	3	4	5
2) Know the background of your Chinese employees.	1	2	3	4	5
3) Have a strong Chinese management team in China.	1	2	3	4	5
4) Utilize interpreters or consultants.	1	2	3	4	5



In your opinion, how important are the following key components for a U.S. agricultural company when entering the Chinese market:	Unimportant	Slightly Important	Moderately Important	Very Important	Essential
	(1)	(2)	(3)	(4)	(5)
5) Understand that entering the Chinese marketplace should be for reasons beyond wage differentials between the U.S. and China.	1	2	3	4	5
6) Understand that the Chinese labor cost for manager-type employees is rising quickly and the differential with the U.S. is closing rapidly.	1	2	3	4	5
<i>Additional key components:</i> _____					
<b>3. <u>Networks (connections) and partnership in China:</u></b>					
1) Understand how connections are formed among Chinese people.	1	2	3	4	5
2) Understand the influence of networks in government, business, and industry.	1	2	3	4	5
3) Create good personal networks within appropriate business sectors.	1	2	3	4	5
4) Participate in and support Chinese professional organizations.	1	2	3	4	5
5) Understand the value of partnerships when entering the Chinese market.	1	2	3	4	5
6) Find and evaluate potential business partners in order to have trustworthy partners.	1	2	3	4	5
7) Establish rapport with the Chinese partners.	1	2	3	4	5
8) Partner with Chinese government branches.	1	2	3	4	5
9) Utilize distributors.	1	2	3	4	5
10) Understand the role of experts from Chinese universities in business development.	1	2	3	4	5
11) Develop partnerships with Chinese universities in order to find potential employees.	1	2	3	4	5
<i>Additional key components:</i> _____					

In your opinion, how important are the following key components for a U.S. agricultural company when entering the Chinese market:		Unimportant	Slightly Important	Moderately Important	Very Important	Essential
		(1)	(2)	(3)	(4)	(5)
<b>4. <u>Chinese business practices:</u></b>						
1)	Understand Chinese business “ground rules.”	1	2	3	4	5
2)	Study how/why businesses and government operate the way they do before making any major decisions in China.	1	2	3	4	5
3)	Have strong ties to the Chinese regulatory officials that approve the registration of the products you plan to market.	1	2	3	4	5
4)	Develop long-term business goals in China.	1	2	3	4	5
5)	Have raw materials supplied locally in China.	1	2	3	4	5
6)	Have sound infrastructures in China necessary for the establishment of proper business.	1	2	3	4	5
7)	Build facilities near customer bases and utilities.	1	2	3	4	5
<i>Additional key components:</i> _____						
<b>5. <u>Product advantages and customer service:</u></b>						
1)	Develop product recognition in China in order to establish the brand.	1	2	3	4	5
2)	Persuade Chinese people to understand the benefits of U.S. technology.	1	2	3	4	5
3)	Study the difference between the current product and the proposed product to make sure the proper value is there.	1	2	3	4	5
4)	Provide service support for product in China.	1	2	3	4	5
5)	Have U.S. based senior management visit and speak with customers in China.	1	2	3	4	5
<i>Additional key components:</i> _____						

**In your opinion, how important are the following key components for a U.S. agricultural company when entering the Chinese market:**

	Unimportant (1)	Slightly Important (2)	Moderately Important (3)	Very Important (4)	Essential (5)
<b>6. <u>Chinese market:</u></b>					
1) Investigate the Chinese market in order to gain an understanding of market dynamics.	1	2	3	4	5
2) Be familiar with the sources of information that provide data necessary to make business decisions.	1	2	3	4	5
3) Have a solid understanding of Chinese customers and their needs.	1	2	3	4	5
4) Find a niche that fits the U.S. company and the Chinese market.	1	2	3	4	5
5) Consider both local consumption and export potential of a product.	1	2	3	4	5
6) Understand the product pricing system in China.	1	2	3	4	5
<i>Additional key components:</i> _____					
<b>7. <u>Political and economic climate in China:</u></b>					
1) Understand the political and economic climate in China as it applies to business development.	1	2	3	4	5
2) Be familiar with Chinese government regulations and incentives.	1	2	3	4	5
3) Understand the impact of trade barriers on business between the U.S. and China.	1	2	3	4	5
<i>Additional key components:</i> _____					

<b>In your opinion, how important are the following key components for a U.S. agricultural company when entering the Chinese market:</b>		<b>Unimportant (1)</b>	<b>Slightly Important (2)</b>	<b>Moderately Important (3)</b>	<b>Very Important (4)</b>	<b>Essential (5)</b>
<b>8. <u>Legal counsel and intellectual property in China:</u></b>						
1)	Understand the Chinese legal system in order to apply to business development.	1	2	3	4	5
2)	Seek help from Chinese legal experts.	1	2	3	4	5
3)	Protect intellectual property rights.	1	2	3	4	5
<i>Additional key components:</i> _____						
<b>9. <u>Ethics and trust:</u></b>						
1)	Be honest and reliable in order to build mutual trust.	1	2	3	4	5
2)	Understand that Chinese definitions of personal ethics may be different from that in the U.S.	1	2	3	4	5
3)	Build trust in U.S. company and its products.	1	2	3	4	5
4)	Develop a strong trusting relationship with the company you are planning to do business with.	1	2	3	4	5
<i>Additional key components:</i> _____						

**Thank you for your help!**

*Please return your questionnaire in envelope or FAX (765-496-1152) to:*

Jiajiang Peng  
 Department of Youth Development & Agricultural Education  
 Purdue University  
 Agriculture Administration Building, Room 219  
 615 W State Street  
 West Lafayette, IN 47907-2053

## Appendix F. Third Round Cover Letter

Dear participant:

Greetings! This may be my final survey (it will depend on the results). I greatly appreciate your assistance with previous surveys which I have sent to you.

Due to the nature of this study design, you are asked to **re-rate** the importance of the key components. The goal of this study is to reach **consensus** among the panel on the importance for each key component. For each key component listed previously in the second round, the whole panel's responses are summarized in **percentage (%)** and your personal response is **marked**. You may keep or change your rating by using the panel's **most frequent response (%)** as your rating reference. Please follow the instructions in the survey and also rate the importance of the **new** key components and **training topics**.

Please follow this link (<HTTPS://WWW.YDAE.PURDUE.EDU/CHINA/>) to a web-based version. This is a secure and confidential website and your ID number for the website is: (...) (Please type the ID in the blank field.)

Please complete and return your survey **today** or no later than date (actual date omitted).

During your survey, feel free to go back and forward to review your answers and double click the check marks will help you to change your choice.

Thanks again for your efforts in completing the surveys. I'll be sending a surprise gift to you in the mail to express my gratitude. I've thoroughly enjoyed working with you in this study. Please feel free to contact me at, Office: 765-496-6123; Fax: 765-496-1152; or Email: [PENGJIAJ@PURDUE.EDU](mailto:PENGJIAJ@PURDUE.EDU) with any questions and concerns that you may have.

Sincerely,

Jiajiang

Jiajiang Peng, PhD Candidate  
Department of Youth Development & Agricultural Education, Purdue University  
Agriculture Administration Building, Room 219  
615 W State Street, West Lafayette, IN 47907-2053  
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## Appendix G. Third Round Survey Instrument

*Organization Code Number:* (IDENTIFICATION NUMBER)

**Research Topic:**                    **An Educational Analysis of Chinese Business Development Strategies by United States  
Agricultural Companies: a Delphi Study**

### *Third Round Survey Questionnaire*

*(You can be assured that all data, including your responses, and personal and organizational identities, will be kept confidential.  
Participation in the current research is fully voluntary and you can choose to stop your participation at any point during the study.)*

#### **Directions:**

The third round survey contains **Part I** and **Part II**.

**Part I:** For this part, you are asked to **re-rate** the importance of the key components from the second round. Please note that additional key components suggested by the panel from the second round were added and marked with **asterisk mark (#)** at the end of each section. Please mark the **one** appropriate degree of importance, Unimportant (1), Slightly Important (2), Moderately Important (3), Very Important (4), and Essential (5), for each of the following key components. For each key component listed previously in the second round, the whole panel's responses are summarized in **percentage (%)** and your personal response is indicated with a **Check Mark (√)**. If your rating for this round is not the **most frequent response (%)** for any of the key components listed previously in the second round, please give your reason(s) in the space provided at the end of each section.

<b>In your opinion, how important are the following key components for a U.S. agricultural company when entering the Chinese market:</b>	<b>Unimportant (1)</b>	<b>Slightly Important (2)</b>	<b>Moderately Important (3)</b>	<b>Very Important (4)</b>	<b>Essential (5)</b>
<b>1. <u>Language and culture:</u></b>					
1) Have key employees in China be able to speak and understand both Chinese and English.	1 0%	2 9%	3 9%	4 21%	5√ 62%
2) Have key U.S. based international employees gain a basic level of knowledge of Chinese language.	1√ 3%	2 24%	3 41%	4 15%	5 18%
3) Recognize that Chinese culture is different from that of the U.S.	1 0%	2 0%	3 6%	4√ 38%	5 56%
4) Have knowledge of the way Chinese culture affects business transactions.	1 0%	2 0%	3 9%	4√ 41%	5 50%
5) Hire employees that demonstrate an understanding and appreciation of both the U.S. and Chinese culture.	1 0%	2 3%	3 15%	4√ 47%	5 35%
6) # Double-check translation in order to avoid lost meanings or unintended messages due to language.	1	2	3	4	5
7) # Have a company culture that fosters multiculturalism in hiring choices and daily operations.	1	2	3	4	5
8) # Understand that culture can vary depending on where in China you are doing business.	1	2	3	4	5

**If your rating for this round is not the most frequent response (%) for any of the key components in this section, please give your reason(s):** \_\_\_\_\_

<b>In your opinion, how important are the following key components for a U.S. agricultural company when entering the Chinese market:</b>	<b>Unimportant (1)</b>	<b>Slightly Important (2)</b>	<b>Moderately Important (3)</b>	<b>Very Important (4)</b>	<b>Essential (5)</b>
<b>2. <u>Human resource and labor cost:</u></b>					
1) Hire Chinese Nationals that have education/training experience in the U.S. as key employees.	1 0%	2√ 9%	3 38%	4 35%	5 18%
2) Know the background of your Chinese employees.	1 0%	2 0%	3√ 32%	4 41%	5 26%
3) Have a strong Chinese management team in China.	1 0%	2 6%	3 18%	4√ 41%	5 35%
4) Utilize interpreters or consultants.	1√ 6%	2 15%	3 35%	4 26%	5 18%
5) Understand that entering the Chinese marketplace should be for reasons beyond wage differentials between the U.S. and China.	1 0%	2 3%	3√ 15%	4 38%	5 44%
6) Understand that the Chinese labor cost for manager-type employees is rising quickly and the differential with the U.S. is closing rapidly.	1 0%	2 12%	3 21%	4√ 32%	5 35%
7) # Hire employees that have expertise and knowledge in the science behind the products	1	2	3	4	5
8) # Create a solid educated workforce that is paid a fair wage.	1	2	3	4	5
9) # Have managers with empathy for the worker's needs.	1	2	3	4	5

**If your rating for this round is not the most frequent response (%) for any of the key components in this section, please give your reason(s):**

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<b>In your opinion, how important are the following key components for a U.S. agricultural company when entering the Chinese market:</b>		<b>Unimportant (1)</b>	<b>Slightly Important (2)</b>	<b>Moderately Important (3)</b>	<b>Very Important (4)</b>	<b>Essential (5)</b>
<b>3. <u>Networks (connections) and partnerships:</u></b>						
1)	Understand how connections are formed among Chinese people.	1 0%	2 3%	3 21%	4√ 41%	5 35%
2)	Understand the influence of networks in government, business, and industry.	1 0%	2 0%	3 9%	4√ 47%	5 44%
3)	Create good personal networks within appropriate business sectors.	1 0%	2 0%	3 9%	4√ 53%	5 38%
4)	Participate in and support Chinese professional organizations.	1 3%	2 9%	3√ 44%	4 35%	5 9%
5)	Understand the value of partnerships when entering the Chinese market.	1 0%	2 0%	3√ 21%	4 53%	5 26%
6)	Find and evaluate potential business partners in order to have trustworthy partners.	1 0%	2 0%	3 6%	4√ 50%	5 44%
7)	Establish rapport with the Chinese partners.	1 0%	2 0%	3 12%	4√ 35%	5 53%
8)	Partner with Chinese government branches.	1 3%	2 9%	3√ 29%	4 35%	5 24%
9)	Utilize distributors.	1 0%	2 12%	3√ 44%	4 32%	5 12%
10)	Understand the role of experts from Chinese universities in business development.	1 0%	2 9%	3√ 38%	4 44%	5 9%
11)	Develop partnerships with Chinese universities in order to find potential employees.	1 0%	2√ 21%	3 35%	4 35%	5 9%
12)	# Identify the key values and common ground of partners in China.	1	2	3	4	5

**If your rating for this round is not the most frequent response (%) for any of the key components in this section, please give your reason(s):** \_\_\_\_\_

In your opinion, how important are the following key components for a U.S. agricultural company when entering the Chinese market:	Unimportant	Slightly Important	Moderately Important	Very Important	Essential
	(1)	(2)	(3)	(4)	(5)
<b>4. <u>Business practices:</u></b>					
1) Understand Chinese business “ground rules.”	1 0%	2 0%	3 15%	4√ 47%	5 38%
2) Study how/why businesses and government operate the way they do before making any major decisions in China.	1 0%	2 3%	3 21%	4√ 50%	5 26%
3) Have strong ties to the Chinese regulatory officials that approve the registration of the products you plan to market.	1 0%	2 3%	3 24%	4√ 56%	5 18%
4) Develop long-term business goals in China.	1 0%	2 0%	3 12%	4√ 38%	5 50%
5) Have raw materials supplied locally in China.	1 9%	2 21%	3 41%	4√ 24%	5 6%
6) Have sound infrastructures in China necessary for the establishment of proper business.	1 0%	2 6%	3 26%	4√ 53%	5 15%
7) Build facilities near customer bases and utilities.	1 6%	2 15%	3 38%	4√ 32%	5 9%
8) # Communicate effectively with people who actually do the work in China.	1	2	3	4	5
9) # Have face-to-face interactions when doing business in China.	1	2	3	4	5

**If your rating for this round is not the most frequent response (%) for any of the key components in this section, please give your reason(s):**

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In your opinion, how important are the following key components for a U.S. agricultural company when entering the Chinese market:		Unimportant	Slightly Important	Moderately Important	Very Important	Essential
		(1)	(2)	(3)	(4)	(5)
<b>5. <u>Product advantages and customer service:</u></b>						
1)	Develop product recognition in China in order to establish the brand.	1 0%	2 0%	3 12%	4√ 68%	5 21%
2)	Persuade Chinese people to understand the benefits of U.S. technology.	1 3%	2 15%	3 18%	4√ 50%	5 15%
3)	Study the difference between the current product and the proposed product to make sure the proper value is there.	1 3%	2 3%	3 24%	4√ 50%	5 21%
4)	Provide service support for product in China.	1 0%	2 0%	3 26%	4 35%	5√ 38%
5)	Have U.S. based senior management visit and speak with customers in China.	1 3%	2 9%	3 32%	4√ 24%	5 32%
6)	# Invite Chinese partners to visit your U.S. facilities.	1	2	3	4	5
<b>If your rating for this round is not the most frequent response (%) for any of the key components in this section, please give your reason(s):</b>						
<hr/>						
<b>6. <u>Chinese market:</u></b>						
1)	Investigate the Chinese market in order to gain an understanding of market dynamics.	1 0%	2 0%	3 9%	4 47%	5√ 44%
2)	Be familiar with the sources of information that provide data necessary to make business decisions.	1 0%	2 3%	3 21%	4√ 47%	5 29%

In your opinion, how important are the following key components for a U.S. agricultural company when entering the Chinese market:		Unimportant	Slightly Important	Moderately Important	Very Important	Essential
		(1)	(2)	(3)	(4)	(5)
3)	Have a solid understanding of Chinese customers and their needs.	1 0%	2 0%	3 12%	4√ 47%	5 41%
4)	Find a niche that fits the U.S. company and the Chinese market.	1 0%	2 6%	3√ 26%	4 38%	5 29%
5)	Consider both local consumption and export potential of a product.	1 6%	2 0%	3 18%	4√ 47%	5 29%
6)	Understand the product pricing system in China.	1 0%	2 0%	3 15%	4√ 44%	5 41%

If your rating for this round is not the most frequent response (%) for any of the key components in this section, please give your reason(s):

7. ***Political and economic climate:***

1)	Understand the political and economic climate in China as it applies to business development.	1 0%	2 0%	3√ 6%	4 65%	5 29%
2)	Be familiar with Chinese government regulations and incentives.	1 0%	2 0%	3√ 12%	4 53%	5 35%
3)	Understand the impact of trade barriers on business between the U.S. and China.	1 0%	2 3%	3 12%	4√ 50%	5 35%
4)	# Understand the expectations of Chinese government officials.	1	2	3	4	5
5)	# Select the right individuals to help navigate the business climate in China.	1	2	3	4	5

If your rating for this round is not the most frequent response (%) for any of the key components in this section, please give your reason(s): \_\_\_\_\_

In your opinion, how important are the following key components for a U.S. agricultural company when entering the Chinese market:	Unimportant	Slightly Important	Moderately Important	Very Important	Essential
	(1)	(2)	(3)	(4)	(5)

**8. Legal counsel and intellectual property:**

1) Understand the Chinese legal system in order to apply to business development.	1 0%	2 12%	3 15%	4√ 47%	5 26%
2) Seek help from Chinese legal experts.	1 6%	2 3%	3√ 15%	4 59%	5 18%
3) Protect intellectual property rights.	1 3%	2√ 9%	3 9%	4 35%	5 44%
4) # Have people on your payroll that are versed in Chinese and U.S. laws.	1	2	3	4	5

If your rating for this round is not the most frequent response (%) for any of the key components in this section, please give your reason(s): \_\_\_\_\_

**9. Ethics and trust:**

1) Be honest and reliable in order to build mutual trust.	1 0%	2 0%	3 9%	4√ 18%	5 74%
2) Understand that Chinese definitions of personal ethics may be different from that in the U.S.	1 0%	2 0%	3 12%	4√ 38%	5 50%
3) Build trust in U.S. company and its products.	1 0%	2 0%	3 0%	4√ 32%	5 68%
4) Develop a strong trusting relationship with the company you are planning to do business with.	1 0%	2 0%	3 3%	4√ 35%	5 62%

If your rating for this round is not the most frequent response (%) for any of the key components in this section, please give your reason(s): \_\_\_\_\_

**Part II:** Please mark the **one** appropriate degree of importance, Unimportant (1), Slightly Important (2), Moderately Important (3), Very Important (4), and Essential (5), for the **previously** listed nine sections that U.S. agricultural companies should receive **training** when entering the Chinese market.

In your opinion, how important are the following nine sections that U.S. agricultural companies should receive **training** when entering the Chinese market:

	<b>Unimportant</b>	<b>Slightly Important</b>	<b>Moderately Important</b>	<b>Very Important</b>	<b>Essential</b>
	<b>(1)</b>	<b>(2)</b>	<b>(3)</b>	<b>(4)</b>	<b>(5)</b>
1) Language and culture	1	2	3	4	5
2) Human resource and labor cost	1	2	3	4	5
3) Networks (connections) and partnership	1	2	3	4	5
4) Business practices	1	2	3	4	5
5) Product advantages and customer service	1	2	3	4	5
6) Chinese market	1	2	3	4	5
7) Political and economic climate	1	2	3	4	5
8) Legal counsel and intellectual property	1	2	3	4	5
9) Ethics and trust	1	2	3	4	5

*Additional training topic(s):*

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**Thank you for your help!**

*Please return your questionnaire in envelope or FAX (765-496-1152) to:*

Ji Jiang Peng  
 Dept. of Youth Development & Agricultural Education  
 Purdue University  
 Agriculture Administration Building, Room 219  
 615 W State Street, West Lafayette, IN 47907-2053

## Appendix H. End of Study Thank You Letter

Dear participant:

Greetings! Now I have completed my current research study. I've thoroughly enjoyed working with you on my research project.

I really appreciate your help and included is a gift to you for the time that you spent on my survey.

I hope you enjoy the winter holidays.

Sincerely,

Jiajiang Peng

Department of Youth Development & Agricultural Education

Purdue University

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## Appendix I. Summary of the Central Tendency and Convergence Measures of the Key Components in Second and Third Rounds

(The importance of each key component is based on a five-point Likert rating scale: Unimportant (1), Slightly Important (2), Moderately Important (3), Very Important (4), and Essential (5)).

### A. *Ethics and trust:*

1) Develop a strong trusting relationship with the company you are planning to do business with.		
	Round 2	Round 3
Mean	4.59	4.88
Median	5	5
Mode	5	5
Standard deviation	0.56	0.33
First quartile (25 <sup>th</sup> percentile)	4	5
Third quartile (75 <sup>th</sup> percentile)	5	5
Interquartile deviation	0.5	0

2) Be honest and reliable in order to build mutual trust.		
	Round 2	Round 3
Mean	4.65	4.88
Median	5	5
Mode	5	5
Standard deviation	0.65	0.41
First quartile (25 <sup>th</sup> percentile)	4.25	5
Third quartile (75 <sup>th</sup> percentile)	5	5
Interquartile deviation	0.38	0

3) Build trust in U.S. company and its products.		
	Round 2	Round 3
Mean	4.68	4.82
Median	5	5
Mode	5	5
Standard deviation	0.48	0.39
First quartile (25 <sup>th</sup> percentile)	4	5
Third quartile (75 <sup>th</sup> percentile)	5	5
Interquartile deviation	0.5	0

4) Understand that Chinese definitions of personal ethics may be different from that in the U.S.		
	Round 2	Round 3
Mean	4.38	4.65
Median	4.5	5
Mode	5	5
Standard deviation	0.70	0.65
First quartile (25 <sup>th</sup> percentile)	4	4.25
Third quartile (75 <sup>th</sup> percentile)	5	5
Interquartile deviation	0.5	0.38



**B. Language and culture:**

1) Recognize that Chinese culture is different from that of the U.S.		
	Round 2	Round 3
Mean	4.50	4.88
Median	5	5
Mode	5	5
Standard deviation	0.62	0.33
First quartile (25 <sup>th</sup> percentile)	4	5
Third quartile (75 <sup>th</sup> percentile)	5	5
Interquartile deviation	0.5	0

2) Have knowledge of the way Chinese culture affects business transactions.		
	Round 2	Round 3
Mean	4.41	4.82
Median	4.50	5
Mode	5	5
Standard deviation	0.66	0.46
First quartile (25 <sup>th</sup> percentile)	4	5
Third quartile (75 <sup>th</sup> percentile)	5	5
Interquartile deviation	0.5	0

3) Have key employees in China be able to speak and understand both Chinese and English.		
	Round 2	Round 3
Mean	4.35	4.76
Median	5	5
Mode	5	5
Standard deviation	0.98	0.61
First quartile (25 <sup>th</sup> percentile)	4	5
Third quartile (75 <sup>th</sup> percentile)	5	5
Interquartile deviation	1	0
	0.5	0

4) Hire employees that demonstrate an understanding and appreciation of both the U.S. and Chinese culture.		
	Round 2	Round 3
Mean	4.15	4.24
Median	4	4
Mode	4	4
Standard deviation	0.78	0.61
First quartile (25 <sup>th</sup> percentile)	4	4
Third quartile (75 <sup>th</sup> percentile)	5	5
Interquartile deviation	0.5	0.5

5) Double-check translation in order to avoid lost meanings or unintended messages due to language.		
	Round 2	Round 3
Mean		4.18
Median		4
Mode		5
Standard deviation	New key component suggested by panel in second round	0.94
First quartile (25 <sup>th</sup> percentile)		4
Third quartile (75 <sup>th</sup> percentile)		5
Interquartile deviation		0.5

6) Understand that culture can vary depending on where in China you are doing business.		
	Round 2	Round 3
Mean	New key component suggested by panel in second round	4.03
Median		4
Mode		4
Standard deviation		0.94
First quartile (25 <sup>th</sup> percentile)		4
Third quartile (75 <sup>th</sup> percentile)		5
Interquartile deviation		0.5

7) Have a company culture that fosters multiculturalism in hiring choices and daily operations.		
	Round 2	Round 3
Mean	New key component suggested by panel in second round	3.82
Median		4
Mode		4
Standard deviation		0.94
First quartile (25 <sup>th</sup> percentile)		3
Third quartile (75 <sup>th</sup> percentile)		4
Interquartile deviation		

8) Have key U.S. based international employees gain a basic level of knowledge of Chinese language.		
	Round 2	Round 3
Mean	3.21	3.24
Median	3	3
Mode	3	3
Standard deviation	1.10	0.99
First quartile (25 <sup>th</sup> percentile)	2.25	3
Third quartile (75 <sup>th</sup> percentile)	4	4
Interquartile deviation	1.75	1
	0.88	0.5

C. *Chinese market:*

1) Investigate the Chinese market in order to gain an understanding of market dynamics.		
	Round 2	Round 3
Mean	4.35	4.38
Median	4	4
Mode	4	4
Standard deviation	0.65	0.55
First quartile (25 <sup>th</sup> percentile)	4	4
Third quartile (75 <sup>th</sup> percentile)	5	5
Interquartile deviation	0.5	0.5

2) Have a solid understanding of Chinese customers and their needs.		
	Round 2	Round 3
Mean	4.29	4.26
Median	4	4
Mode	4	4
Standard deviation	0.68	0.51
First quartile (25 <sup>th</sup> percentile)	4	4
Third quartile (75 <sup>th</sup> percentile)	5	5
Interquartile deviation	0.5	0.5

3) Understand the product pricing system in China.		
	Round 2	Round 3
Mean	4.26	4.21
Median	4	4
Mode	4	4
Standard deviation	0.71	0.54
First quartile (25 <sup>th</sup> percentile)	4	4
Third quartile (75 <sup>th</sup> percentile)	5	4.75
Interquartile deviation	0.5	0.38

4) Consider both local consumption and export potential of a product.		
	Round 2	Round 3
Mean	3.94	4.15
Median	4	4
Mode	4	4
Standard deviation	1.01	0.61
First quartile (25 <sup>th</sup> percentile)	4	4
Third quartile (75 <sup>th</sup> percentile)	5	4.75
Interquartile deviation	0.5	0.38

5) Find a niche that fits the U.S. company and the Chinese market.		
	Round 2	Round 3
Mean	3.91	4.09
Median	4	4
Mode	4	4
Standard deviation	0.90	0.62
First quartile (25 <sup>th</sup> percentile)	3	4
Third quartile (75 <sup>th</sup> percentile)	5	4
Interquartile deviation		

6) Be familiar with the sources of information that provide data necessary to make business decisions.		
	Round 2	Round 3
Mean	4.03	3.97
Median	4	4
Mode	4	4
Standard deviation	0.80	0.52
First quartile (25 <sup>th</sup> percentile)	4	4
Third quartile (75 <sup>th</sup> percentile)	5	4
Interquartile deviation	0.5	0

**D. *Political and economic climate in China:***

1) Select the right individuals to help navigate the business climate in China.		
	Round 2	Round 3
Mean	New key component suggested by panel in second round	4.29
Median		4
Mode		4 and 5
Standard deviation		0.76
First quartile (25 <sup>th</sup> percentile)		4
Third quartile (75 <sup>th</sup> percentile)		5
Interquartile deviation		0.5

2) Be familiar with Chinese government regulations and incentives.		
	Round 2	Round 3
Mean	4.24	4.24
Median	4	4
Mode	4	4
Standard deviation	0.65	0.50
First quartile (25 <sup>th</sup> percentile)	4	4
Third quartile (75 <sup>th</sup> percentile)	5	4.75
Interquartile deviation	0.5	0.38

3) Understand the impact of trade barriers on business between the U.S. and China.		
	Round 2	Round 3
Mean	4.18	4.18
Median	4	4
Mode	4	4
Standard deviation	0.76	0.52
First quartile (25 <sup>th</sup> percentile)	4	4
Third quartile (75 <sup>th</sup> percentile)	5	4
Interquartile deviation	0.5	0

4) Understand the political and economic climate in China as it applies to business development.		
	Round 2	Round 3
Mean	4.24	4.09
Median	4	4
Mode	4	4
Standard deviation	0.55	0.38
First quartile (25 <sup>th</sup> percentile)	4	4
Third quartile (75 <sup>th</sup> percentile)	5	4
Interquartile deviation	0.5	0

5) Understand the expectations of Chinese government officials.		
	Round 2	Round 3
Mean	New key component suggested by panel in second round	3.94
Median		4
Mode		4
Standard deviation		0.78
First quartile (25 <sup>th</sup> percentile)		3.25
Third quartile (75 <sup>th</sup> percentile)		4
Interquartile deviation		

E. Product advantages and customer service:

1) Provide service support for product in China.		
	Round 2	Round 3
Mean	4.12	4.50
Median	4	5
Mode	5	5
Standard deviation	0.81	0.62
First quartile (25 <sup>th</sup> percentile)	3.25	4
Third quartile (75 <sup>th</sup> percentile)	5	5
Interquartile deviation	0.88	0.5

2) Develop product recognition in China in order to establish the brand.		
	Round 2	Round 3
Mean	4.09	4.09
Median	4	4
Mode	4	4
Standard deviation	0.57	0.45
First quartile (25 <sup>th</sup> percentile)	4	4
Third quartile (75 <sup>th</sup> percentile)	4	4
Interquartile deviation	0	0

3) Study the difference between the current product and the proposed product to make sure the proper value is there.		
	Round 2	Round 3
Mean	3.82	4.00
Median	4	4
Mode	4	4
Standard deviation	0.90	0.49
First quartile (25 <sup>th</sup> percentile)	3	4
Third quartile (75 <sup>th</sup> percentile)	4	4
Interquartile deviation	0.5	0

4) Have U.S. based senior management visit and speak with customers in China.		
	Round 2	Round 3
Mean	3.74	3.94
Median	4	4
Mode	3 and 5	5
Standard deviation	1.11	1.04
First quartile (25 <sup>th</sup> percentile)	3	3
Third quartile (75 <sup>th</sup> percentile)	5	5
Interquartile deviation	1	1

5) Invite Chinese partners to visit your U.S. facilities.		
	Round 2	Round 3
Mean		3.82
Median		4
Mode		4
Standard deviation	New key component suggested by panel in second round	0.83
First quartile (25 <sup>th</sup> percentile)		3
Third quartile (75 <sup>th</sup> percentile)		4
Interquartile deviation		0.5

6) Persuade Chinese people to understand the benefits of U.S. technology.		
	Round 2	Round 3
Mean	3.59	3.74
Median	4	4
Mode	4	4
Standard deviation	1.02	0.86
First quartile (25 <sup>th</sup> percentile)	3	3.25
Third quartile (75 <sup>th</sup> percentile)	4	4
Interquartile deviation	0.5	0.38

**F. Human resource and labor cost:**

1) Understand that entering the Chinese marketplace should be for reasons beyond wage differentials between the U.S. and China.		
	Round 2	Round 3
Mean	4.24	4.53
Median	4	5
Mode	5	5
Standard deviation	0.82	0.79
First quartile (25 <sup>th</sup> percentile)	4	4
Third quartile (75 <sup>th</sup> percentile)	5	5
Interquartile deviation	0.5	0.5

2) Create a solid educated workforce that is paid a fair wage.		
	Round 2	Round 3
Mean		4.24
Median		4
Mode	New key component suggested by panel in second round	4
Standard deviation		0.78
First quartile (25 <sup>th</sup> percentile)		4
Third quartile (75 <sup>th</sup> percentile)		5
Interquartile deviation		0.5

3) Understand that the Chinese labor cost for manager-type employees is rising quickly and the differential with the U.S. is closing rapidly.		
	Round 2	Round 3
Mean	3.91	4.21
Median	4	5
Mode	5	5
Standard deviation	1.03	1.04
First quartile (25 <sup>th</sup> percentile)	3	4
Third quartile (75 <sup>th</sup> percentile)	5	5
Interquartile deviation	1	0.5

4) Have managers with empathy for the worker's needs.		
	Round 2	Round 3
Mean		4.18
Median		4
Mode	New key component suggested by panel in second round	4
Standard deviation		0.72
First quartile (25 <sup>th</sup> percentile)		4
Third quartile (75 <sup>th</sup> percentile)		5
Interquartile deviation		0.5

5) Know the background of your Chinese employees.		
	Round 2	Round 3
Mean	3.94	4.03
Median	4	4
Mode	4	4
Standard deviation	0.78	0.67
First quartile (25 <sup>th</sup> percentile)	3	4
Third quartile (75 <sup>th</sup> percentile)	4.75	4
Interquartile deviation	0.88	0

6) Hire employees that have expertise and knowledge in the science behind the products.		
	Round 2	Round 3
Mean	New key component suggested by panel in second round	4.03
Median		4
Mode		4
Standard deviation		0.83
First quartile (25 <sup>th</sup> percentile)		4
Third quartile (75 <sup>th</sup> percentile)		5
Interquartile deviation		0.5

7) Have a strong Chinese management team in China.		
	Round 2	Round 3
Mean	4.06	4.00
Median	4	4
Mode	4	4
Standard deviation	0.89	0.85
First quartile (25 <sup>th</sup> percentile)	4	4
Third quartile (75 <sup>th</sup> percentile)	5	4.75
Interquartile deviation	0.5	0.38

8) Hire Chinese Nationals that have education/training experience in the U.S. as key employees.		
	Round 2	Round 3
Mean	3.62	3.47
Median	4	3
Mode	3	3
Standard deviation	0.89	0.79
First quartile (25 <sup>th</sup> percentile)	3	3
Third quartile (75 <sup>th</sup> percentile)	4	4
Interquartile deviation	0.5	0.5

9) Utilize interpreters or consultants.		
	Round 2	Round 3
Mean	3.35	3.29
Median	3	3
Mode	3	3
Standard deviation	1.13	0.97
First quartile (25 <sup>th</sup> percentile)	3	3
Third quartile (75 <sup>th</sup> percentile)	4	4
Interquartile deviation	0.5	0.5

**G. Networks (connections) and partnerships in China:**

1) Establish rapport with the Chinese partners.		
	Round 2	Round 3
Mean	4.41	4.74
Median	5	5
Mode	5	5
Standard deviation	0.70	0.57
First quartile (25 <sup>th</sup> percentile)	4	5
Third quartile (75 <sup>th</sup> percentile)	5	5
Interquartile deviation	0.5	0

2) Understand the influence of networks in government, business, and industry.		
	Round 2	Round 3
Mean	4.35	4.38
Median	4	4
Mode	4	4
Standard deviation	0.65	0.55
First quartile (25 <sup>th</sup> percentile)	4	4
Third quartile (75 <sup>th</sup> percentile)	5	5
Interquartile deviation	0.5	0.5

3) Find and evaluate potential business partners in order to have trustworthy partners.		
	Round 2	Round 3
Mean	4.38	4.38
Median	4	4
Mode	4	4
Standard deviation	0.60	0.55
First quartile (25 <sup>th</sup> percentile)	4	4
Third quartile (75 <sup>th</sup> percentile)	5	5
Interquartile deviation	0.5	0.5

4) Create good personal networks within appropriate business sectors.		
	Round 2	Round 3
Mean	4.29	4.29
Median	4	4
Mode	4	4
Standard deviation	0.63	0.46
First quartile (25 <sup>th</sup> percentile)	4	4
Third quartile (75 <sup>th</sup> percentile)	5	5
Interquartile deviation	0.5	0.5

5) Understand the value of partnerships when entering the Chinese market.		
	Round 2	Round 3
Mean	4.06	4.24
Median	4	4
Mode	4	4
Standard deviation	0.69	0.55
First quartile (25 <sup>th</sup> percentile)	4	4
Third quartile (75 <sup>th</sup> percentile)	4.75	5
Interquartile deviation	0.38	0.5

6) Understand how connections are formed among Chinese people.		
	Round 2	Round 3
Mean	4.09	4.09
Median	4	4
Mode	4	4
Standard deviation	0.83	0.67
First quartile (25 <sup>th</sup> percentile)	4	4
Third quartile (75 <sup>th</sup> percentile)	5	4.75
Interquartile deviation	0.5	0.38



7) Identify the key values and common ground of partners in China.		
	Round 2	Round 3
Mean	New key component suggested by panel in second round	4.00
Median		4
Mode		4
Standard deviation		0.85
First quartile (25 <sup>th</sup> percentile)		3
Third quartile (75 <sup>th</sup> percentile)		5
Interquartile deviation		1

8) Partner with Chinese government branches.		
	Round 2	Round 3
Mean	3.68	3.68
Median	4	4
Mode	4	4
Standard deviation	1.04	0.91
First quartile (25 <sup>th</sup> percentile)	3	3
Third quartile (75 <sup>th</sup> percentile)	4	4
Interquartile deviation	0.5	0.5

9) Understand the role of experts from Chinese universities in business development.		
	Round 2	Round 3
Mean	3.53	3.62
Median	4	4
Mode	4	4
Standard deviation	0.79	0.74
First quartile (25 <sup>th</sup> percentile)	3	3
Third quartile (75 <sup>th</sup> percentile)	4	4
Interquartile deviation	0.5	0.5

10) Develop partnerships with Chinese universities in order to find potential employees.		
	Round 2	Round 3
Mean	3.32	3.41
Median	3	3
Mode	3 and 4	3
Standard deviation	0.91	0.89
First quartile (25 <sup>th</sup> percentile)	3	3
Third quartile (75 <sup>th</sup> percentile)	4	4
Interquartile deviation	0.5	0.5

11) Utilize distributors.		
	Round 2	Round 3
Mean	3.44	3.26
Median	3	3
Mode	3	3
Standard deviation	0.86	0.71
First quartile (25 <sup>th</sup> percentile)	3	3
Third quartile (75 <sup>th</sup> percentile)	4	4
Interquartile deviation	0.5	0.5

12) Participate in and support Chinese professional organizations.		
	Round 2	Round 3
Mean	3.38	3.26
Median	3	3
Mode	3	3
Standard deviation	0.89	0.79
First quartile (25 <sup>th</sup> percentile)	3	3
Third quartile (75 <sup>th</sup> percentile)	4	4
Interquartile deviation	0.5	0.5

#### H. *Chinese business practices:*

1) Develop long-term business goals in China.		
	Round 2	Round 3
Mean	4.38	4.59
Median	4.5	5
Mode	5	5
Standard deviation	0.70	0.66
First quartile (25 <sup>th</sup> percentile)	4	4
Third quartile (75 <sup>th</sup> percentile)	5	5
Interquartile deviation	0.5	0.5

2) Have face-to-face interactions when doing business in China.		
	Round 2	Round 3
Mean		4.47
Median		4.5
Mode	New key component suggested by panel in second round	5
Standard deviation		0.56
First quartile (25 <sup>th</sup> percentile)		4
Third quartile (75 <sup>th</sup> percentile)		5
Interquartile deviation		0.5

3) Understand Chinese business "ground rules."		
	Round 2	Round 3
Mean	4.24	4.24
Median	4	4
Mode	4	4
Standard deviation	0.70	0.61
First quartile (25 <sup>th</sup> percentile)	4	4
Third quartile (75 <sup>th</sup> percentile)	5	5
Interquartile deviation	0.5	0.5

4) Communicate effectively with people who actually do the work in China.		
	Round 2	Round 3
Mean		4.24
Median		4
Mode	New key component suggested by panel in second round	4
Standard deviation		0.82
First quartile (25 <sup>th</sup> percentile)		4
Third quartile (75 <sup>th</sup> percentile)		5
Interquartile deviation		0.5

5) Study how/why businesses and government operate the way they do before making any major decisions in China.		
	Round 2	Round 3
Mean	4.00	4.00
Median	4	4
Mode	4	4
Standard deviation	0.78	0.65
First quartile (25 <sup>th</sup> percentile)	4	4
Third quartile (75 <sup>th</sup> percentile)	4.75	4
Interquartile deviation	0.38	0

6) Have strong ties to the Chinese regulatory officials that approve the registration of the products you plan to market.		
	Round 2	Round 3
Mean	3.88	4.00
Median	4	4
Mode	4	4
Standard deviation	0.73	0.65
First quartile (25 <sup>th</sup> percentile)	3.25	4
Third quartile (75 <sup>th</sup> percentile)	4	4
Interquartile deviation	0.38	0

7) Have sound infrastructures in China necessary for the establishment of proper business.		
	Round 2	Round 3
Mean	3.76	3.88
Median	4	4
Mode	4	4
Standard deviation	0.78	0.64
First quartile (25 <sup>th</sup> percentile)	3	4
Third quartile (75 <sup>th</sup> percentile)	4	4
Interquartile deviation	0.5	0

8) Build facilities near customer bases and utilities.		
	Round 2	Round 3
Mean	3.24	3.15
Median	3	3
Mode	3	3
Standard deviation	1.02	0.82
First quartile (25 <sup>th</sup> percentile)	3	3
Third quartile (75 <sup>th</sup> percentile)	4	4
Interquartile deviation	0.5	0.5

9) Have raw materials supplied locally in China.		
	Round 2	Round 3
Mean	2.97	2.88
Median	3	3
Mode	3	3
Standard deviation	1.03	1.07
First quartile (25 <sup>th</sup> percentile)	2	3
Third quartile (75 <sup>th</sup> percentile)	4	3
Interquartile deviation	1	0

**I. Legal counsel and intellectual property in China:**

1) Protect intellectual property rights.		
	Round 2	Round 3
Mean	4.09	4.35
Median	4	5
Mode	5	5
Standard deviation	1.08	1.01
First quartile (25 <sup>th</sup> percentile)	4	4
Third quartile (75 <sup>th</sup> percentile)	5	5
Interquartile deviation	0.5	0.5

2) Understand the Chinese legal system in order to apply to business development.		
	Round 2	Round 3
Mean	3.88	3.85
Median	4	4
Mode	4	4
Standard deviation	0.95	0.82
First quartile (25 <sup>th</sup> percentile)	3.25	4
Third quartile (75 <sup>th</sup> percentile)	4.75	4
Interquartile deviation	0.75	0

3) Seek help from Chinese legal experts.		
	Round 2	Round 3
Mean	3.79	3.76
Median	4	4
Mode	4	4
Standard deviation	0.98	0.89
First quartile (25 <sup>th</sup> percentile)	4	4
Third quartile (75 <sup>th</sup> percentile)	4	4
Interquartile deviation	0	0

4) Have people on your payroll that are versed in Chinese and U.S. laws.		
	Round 2	Round 3
Mean		3.53
Median		4
Mode		4
Standard deviation	New key component suggested by panel in second round	0.93
First quartile (25 <sup>th</sup> percentile)		3
Third quartile (75 <sup>th</sup> percentile)		4
Interquartile deviation		0.5

## Appendix J. The Reasons for the Less Frequent Response of the Key Components in the Third Round of the Study

### 1. Language and culture

I hired a Chinese researcher to assist in communication with our China team but also to support the many Chinese visitors that come through the states, the visiting scientists and student interns and also to help with translation of presentation and give us a second opinion on translations.

I am not certain it would be essential for an understanding of both Chinese and English in light of Chinese English skills.

I feel that understanding of cultural differences is essential to good working relationships.

I feel that at least in the upper level of the Chinese company the need understand both sets of values to be able to work well long-term

Because of the complexity of the Chinese language, the key for me is to have international employees who are fluent in the language and that can reliably communicate and translate into Chinese. However, while desirable, it did not seem that having US-based employees with a good understanding of the Chinese language was a must. Having said that, it is definitely a plus and something valuable.

I feel that some of the items which only had a 4 rating, are still much more important when I consider how we conduct business in China, and lessons learned.

Unless all of these items are followed through on by personnel each can be a fatal flaw if problems arise that are not addressed, both in the short and long-term

The understanding culture and business manner are more important for successful business as I experienced.

Not necessary for China employees (in China) to fully understand English.

I think that while expert knowledge and skills for Chinese language and culture is not necessary for success, there should at least be a strong desire to learn these things.

Key people need to be able communicate with US, if it's a US based company. Need more than just numbers. You could hire translators, but that is not ideal.

Must recognize the cultures are different, otherwise it will fail.

## 2. Human resources and labor costs in China

It is not essential, in my view, to totally ignore wage differentials. In the U.S., wages are adjusted depending on the geographic market area. I agree that entering the Chinese marketplace needs to be for reasons beyond wage differentials between U.S. and China. But one cannot totally ignore any inherent differences.

At least the top Chinese nationals in one's company must deeply understand where we Americans are coming from.

I believe that having strong Chinese nationals improves communication within the Chinese organization. We had lot of trouble using transplanted Americans.

Since I cannot speak Chinese, I want an unbiased interpreter that can keep me aware of nuances in meetings or important conversations. Those nuances can get overlooked, or even "spun," by our Chinese managers.

Knowing the background of any employee is paramount; failure to do so will likely result in situations that can significantly harm a company reputation and/or brand.

I marked "hire Chinese Nationals that have education/training experience in the U.S. as key employees" as essential in order to help bridge cultural gaps. While it is essential for U.S. people to understand the Chinese business practices, it also seems essential that the Chinese Nationals be able to understand the US culture. Now, could that be gained by study in China and not experience in the US, possibly.

Because of the differences within China, knowing the background of a Chinese employee seems essential to understand what culture they operate in.

"Utilize interpreters or consultants" seems useful when the company does not have direct experienced Chinese employees. If they do, this is less important.

"Understand that the Chinese labor cost for manager-type employees is rising quickly" is important, but seemed like a financial matter and not critical to achieving success. If the question is whether this is important in retaining employees, I would have marked it higher.

You can get highest performance of a person without knowledge of his/her background.

A strong local team can compensate for, or even replace, a "foreign" team and achieve same or better results.

Interpreters and consultants are your guides, at least initially.

Cost should be, and always is, only one of many key components in any strategic thinking.

Cultural differences cannot be learned from a book, so it is helpful to have key employees have firsthand experience in the other country

Regardless of the location, it is essential that one know the background of employees, or else why ask for references?

If the people have language skills and the ones in the USA have some skills then the interpreters are primarily for the short term or specific project consultants, so are not essential but are important.

The labor advantage is important but is seen as being of secondary importance to the expanding middle class and thus markets within China.

The more educated the workforce the more mobile they become, but also the more valuable in creating innovation and programs that benefit your company; fair wages help ensure they are loyal.

Managers must care for their employees' welfare and treat them as valued persons and not dispensable animals or robots doing a chore.

You should know who your Chinese employees are and their loyalty

Turn-over rate would be important to understand. O-J-T (on the job training) is more important long-term than expertise for all employees. Fair wages are negotiated based on output vs. cost.

I still believe it is very important that proper translation is used if the speaker does not have a mastery of the language.

I think that interpreters and consultants are important in order to understand subtle differences that may apply to particular regions.

### **3. Networks and partnerships in China**

Problem with linking with government is that most government owned companies have reputation of poor quality, and poor attention to meeting client's needs.

It is becoming more important to be involved in and supporting professional organizations in China. The world is interested to being involved in these groups and globally-based trade shows are becoming more accepted in China. Many of these are sponsored by professional organizations in China.

I want to use the Chinese government branches to facilitate my Chinese ventures and their development, but I do not prefer to have the government as my partner, if at all possible. The government generally has other motives which do not allow business efficiencies to be maximized.

Believe a presence within professional organizations is key to staying abreast of current issues and shows you are willing to be part of what they are trying to achieve.

Using distributors potentially means loss of control over the product integrity - particularly intellectual property rights.

I tend to strongly disagree with the most common replies here. After being on the ground in China I think it is critical to understand how the Chinese view the concepts of relationship, rapport and friendship.

China is a very complex society and I don't think I'll ever master that knowledge. I'm comfortable relying on my Chinese managers to understand - although I question whether any one person can get his arms around it in such a big and diverse country.

It is a general philosophy for us to never enter a new and poorly understood business climate without a local partner that has similar objectives and motivations as do we.

Partner with Chinese government branches is not always possible. Nice if you can do it, but not a show stopper if you can't.

I think it depends on your business and type of product. Ours requires a complex, slow technical sell, and we sell at a price premium over competitive products based on quality. Distributors are not effective except as door openers and bridges. We do the selling with direct sales representatives.

Seems to be a mixed situation. Many of our customers distrust University research because they have evidence that the academics can be bought.

In our field - animal science - the schools are the source spring of bright, eager talent. The best students from the best advisors are quickly snapped up.

Rapport is importance, but business and operations essential will ultimately dictate level of rapport.

“Understand the role of experts from Chinese universities in business development” will depend on nature of business and product.

I could have marked this in the middle, but stayed to the left because of the general treatment we have gotten of distrust. This participation didn't seem to be fully wanted.



Money perhaps to do research, but full participation in professional organizations less so. I could be wrong though. Just my perspective.

I marked this essential because of the need to understand the motivations and goals of partners so as to avoid missteps.

One thing we have learned from the science side is that the Chinese government wants to verify the science themselves. However, in groundbreaking technology, it isn't always known how to do this. Because the government is tied to universities closely, getting to a base understanding of the science is needed through some dialogue or partnering.

Chinese universities seem to have significant impact on government actions when new technology is involved.

Partnering with Chinese Government branches in my opinion may just be incorrect phrase. I'm not sure a U.S. company can really partner with them, but I think it is essential to have a good rapport with various levels of government agencies to facilitate good business success.

Understanding cultural interactions can prevent many problems and facilitate progress for the company.

Networks are what drive systems, and business cannot be done effectively without personal connections and knowledge of the other's trustworthiness.

I may have overrated “participate in and support Chinese professional organizations” but company loyalty in part is from their interaction with professional and local organizations. Support helps create commitment to the company.

Trust is not a high value component of business, but return customers are essential for continued success and part of that basis is trust and quality products.

Government is an important player, especially in China, for the success of the business and as such must be accounted for in any business plan.

Distributors [trusted, quality] can multiply your sales if they are good. Solid relationships are based on common ground or an appreciation/respect for the other person's values, so you each know where you stand in various circumstances; one needs a solid basis on which to make decisions.

You should have a partner who share the same value for long-term business relationship

I think networking very important.

I feel that the participation in professional groups is important.

I don't feel that this is as important in conducting business.

#### **4. Chinese business practices**

The government has a much greater role/impact on business decisions than in the U.S. There is also a much closer relationship between government and business - including relatives of government officials that run businesses.

One consequence of the widespread melamine contamination of Chinese food products is that from a food safety perspective, Chinese origin food products are suspect. Chinese consumer and foreign customers have lost confidence in the safety of Chinese food products, unethical Chinese business practices and the failure of government regulation. Ingredients from foreign sources that come from a strong food safety regulatory and business integrity are going to be increasingly important to win the confidence of Chinese consumers and for any of those products to enter international markets.

We're still wondering, but having pretty good success by relying on trustworthy partners and good Chinese nationals on our team. They also frequently have different opinions.

We sell in highly regulated industry - ingredients to feed animals. Nothing gets done if the regulators at multiple levels are not comfortable with us. They can be quite arbitrary, so relationship is more important than facts.

Everything changes so quickly that plans must be flexible and fluid. Keep the goal and your core values steady as a rock, but be ready to change the approach many times if needed.

Our product is made in a large, sophisticated chemical process plant, but sells all over China. If the question had been utilities, I would have ranked higher.

We have done this studying after learning the hard way by not understanding the way the government operates. For example, in Chinese culture, hierarchy dictates that the word of a junior official does not have to be held up by a senior official. That is a big thing to understand when getting promises.

In regards to strong ties, this is just a point again of understanding what the government is trying to accomplish for their country in regards to new products.

I am not sure that the government practices long-term goal setting. While we are proponents of long-term business planning, I am not sure that at some point it makes a difference. Important yes, but possibly medium-range goals are more important because of changing society. Still very important though.

If you do not understand the rules you are open to abuse or honest error that is costly or disastrous.

Not all decisions are made on science and data, regardless of the country

Short and long-term goals are essential and I undervalued it on the previous survey

I do not know how one can operate a business effectively and profitably if the infrastructure of the company is not sound.

While not essential to be near customers [witness the sales from China to our big box stores in the USA], production facilities can cut costs if at least some are located near customers and utilities depending on the cost structure.

Face to face interactions is essential for doing business in China, and this is part of effective communication which must be at and between all levels of management and production, as well as mutual respect.

You should know how government operates and what their regulations before you get into china for business development.

I changed my answer because it is not so important to be near customers.

Unless you are manufacturing your products in China, I do not believe it is essential to use Chinese raw materials.

A working knowledge of institutions is vital for success in China.

## **5. Product advantages and customer service**

Senior management most likely will want to travel to China to personally evaluate potential and progress, but less than critical with a strong management team representing the U.S. company.

“Have U.S. based senior management visit and speak with customers in China” provides credibility and understanding between Chinese customers and U.S. senior management. It also shows a genuine interest for the Chinese customer and promotes the opportunity for management to then convey this understanding to U.S. executives back in the U.S.

Brand names are very important to Chinese consumers.

As stated earlier, we sell a premium product at a higher price than competitors. Therefore it is impossible without brand recognition.

I find that there is a strong national pride and bragging about how foreign technology is better rubs customers the wrong way. They either already believe it or they will not. Better to soft pedal that issue.

“Study the difference between the current product and the proposed product to make sure the proper value is there” seems important in any business, but essential in ours.

Our product doesn't require much service.

One learning we have had is that Chinese are wary of outside companies selling their products for gain to the company but not benefit to the people. When it is clear how this benefits the country, it is easier.

We haven't found that senior management visits to customers are that impactful unless there are just a few critical customers that drive adoption. In that case, I would move my assessment up.

Visits both directions are very helpful.

Value should be evaluated and recognized before deciding going into China. To educate from marketing stand point, is too expensive.

Product recognition may not be as important today as in the future when brand loyalty will increase in importance with increasing income of workers.

Without value, sales are temporary.

Local service support for products sold in China, just like products sold in other countries is very important because it cuts down on repair time and costs.

For new products “provide service support for product in China” is important.

The Chinese already know about the value of U.S. technology.

## **6. Chinese markets**

It is essential to first understand market dynamics by investigating it thoroughly. One will fail if they do not study this well, in both U.S. and in China markets. This means that a company cannot make a 2 or 3 day visit to China to study markets and how they work, and then go back to the U.S. assuming that you know how markets work.

Accurate and timely data may be a challenge but is essential to understanding the market and making correct business decisions. Surrogate information may be available as a substitute. For instance, statistics on the change in percent of urban households with refrigerators was a good surrogate for the potential for frozen foods, advance indicator for supermarket growth, and a measure of the spread of the consumer/ middle class that can afford to buy more expensive processed foods.

Depending upon the product, the export market - particularly to Japan should be assessed. The rapid growth in income and spread of the Chinese middle class makes this less important over time. However, the Japanese market is a potential "cash cow" for the right products. It is also a quality test.

We needed to learn how other companies sell quality at a premium price.

Because we sell at a high price, we can't waste time/resources going for volume. We need to identify those customers that care about quality and performance rather than just "best price."

We intend to produce in China to export to other world markets.

“Be familiar with the sources of information that provide data necessary to make business decisions” seems essential from a business practice just to ensure validity of data.

I consider “Consider both local consumption and export potential of a product” as essential since we are in the grain markets. It makes a huge difference for cultivations vs. imports or exports.

How do you design and sell products without understanding your customers and their need?

## **7. Political and economic climate in China**

We feel we can be successful just making and selling within China, but have hopes to export. Time will tell.

Know the Chinese economic climate, Chinese government, and trade barriers between the U.S. and China are essential for the same reason that being that each has tremendous influence on decisions made to approve new regulated products.

Having the right people on the ground in China is essential.

Targeting products to customers requires one understand the customer and his needs. Product analysis should be holistic.

If you do not know the regulations and incentives much money and time can be lost with no recourse.

Obviously the right person needs to be selected but too much emphasis on a particular person [kings and king makers] consolidates power in the hands of a few and that can be counterproductive

The government in China sets the tone for business. It is important that a U.S. company understands the institutions and how they interact.

### **8. Legal counsel and intellectual property in China**

Speed to market is sometimes more important than intellectual property. Also in many cases you must divulge information that is in many countries unnecessary and may be inappropriate to do.

It is vital to understand intellectual property rights and the importance of protecting the brand name.

At this point in their maturation, the legal system is not a useful business tool. Best to find some other way.

Having trusted Legal counsel is key, I'm not sure they have to be direct employees of your company.

As stated in other sections, not understanding the legal system can be disastrous.

Chinese people may not be the only ones who are experts on Chinese laws.

The people who are versed in laws are essential but do not need to be on your payroll.

Our company has been in several legal battles so I guess I am a little sensitive about this.

## Appendix K. Summary of Central Tendency and Convergence Measures of the Training Topics in the Third Round

(The importance of each training topics is based on its mean value which is based on a five-point Likert rating scale: Unimportant (1), Slightly Important (2), Moderately Important (3), Very Important (4), and Essential (5)).

<b>A. <i>Ethics and trust</i></b>	
Mean	4.53
Median	5
Mode	5
Standard deviation	0.62
First quartile (25 <sup>th</sup> percentile)	4
Third quartile (75 <sup>th</sup> percentile)	5
Interquartile deviation	0.5

<b>B. <i>Networks (connections) and partnerships in China</i></b>	
Mean	4.44
Median	4
Mode	4
Standard deviation	0.56
First quartile (25 <sup>th</sup> percentile)	4
Third quartile (75 <sup>th</sup> percentile)	5
Interquartile deviation	0.5

<b>C. <i>Chinese market</i></b>	
Mean	4.41
Median	5
Mode	5
Standard deviation	0.70
First quartile (25 <sup>th</sup> percentile)	4
Third quartile (75 <sup>th</sup> percentile)	5
Interquartile deviation	0.5

<b>D. <i>Chinese business practices</i></b>	
Mean	4.35
Median	4
Mode	4
Standard deviation	0.60
First quartile (25 <sup>th</sup> percentile)	4
Third quartile (75 <sup>th</sup> percentile)	5
Interquartile deviation	0.5

<b>E. <i>Language and culture</i></b>	
Mean	4.29
Median	4
Mode	4
Standard deviation	0.68
First quartile (25 <sup>th</sup> percentile)	4
Third quartile (75 <sup>th</sup> percentile)	5
Interquartile deviation	0.5

<b>F. <u>Product advantages and customer service</u></b>	
Mean	4.18
Median	4
Mode	4
Standard deviation	0.46
First quartile (25 <sup>th</sup> percentile)	4
Third quartile (75 <sup>th</sup> percentile)	4
Interquartile deviation	0

<b>G. <u>Political and economic climate in China</u></b>	
Mean	4.06
Median	4
Mode	4
Standard deviation	0.89
First quartile (25 <sup>th</sup> percentile)	4
Third quartile (75 <sup>th</sup> percentile)	5
Interquartile deviation	0.5

<b>H. <u>Legal counsel and intellectual property in China</u></b>	
Mean	3.79
Median	4
Mode	4
Standard deviation	0.98
First quartile (25 <sup>th</sup> percentile)	3.25
Third quartile (75 <sup>th</sup> percentile)	4
Interquartile deviation	0.38

<b>I. <u>Human resource and labor cost</u></b>	
Mean	3.76
Median	4
Mode	4
Standard deviation	0.82
First quartile (25 <sup>th</sup> percentile)	3
Third quartile (75 <sup>th</sup> percentile)	4
Interquartile deviation	0.5



## Appendix L. Summary of the Percentage Distribution of the Importance Level of the Key Components and Training Topics at the End of the Study

**Research Topic:** **An Educational Analysis of Chinese Business Development Strategies by United States Agricultural Companies: a Delphi Study**

**Directions:**

The third round survey contains **Part I** and **Part II**.

**Part I:** For this part, you are asked to **re-rate** the importance of the key components from the second round. Please note that additional key components suggested by the panel from the second round were added and marked with **asterisk mark (#)** at the end of each section. Please mark the **one** appropriate degree of importance, Unimportant (1), Slightly Important (2), Moderately Important (3), Very Important (4), and Essential (5), for each of the following key components.

<b>In your opinion, how important are the following key components for a U.S. agricultural company when entering the Chinese market:</b>	<b>Unimportant (1)</b>	<b>Slightly Important (2)</b>	<b>Moderately Important (3)</b>	<b>Very Important (4)</b>	<b>Essential (5)</b>
<b>1. <u>Language and culture:</u></b>					
1) Have key employees in China be able to speak and understand both Chinese and English.	1 0%	2 3%	3 0%	4 15%	5 82%
2) Have key U.S. based international employees gain a basic level of knowledge of Chinese language.	1 3%	2 15%	3 53%	4 15%	5 15%
3) Recognize that Chinese culture is different from that of the U.S.	1 0%	2 0%	3 0%	4 12%	5 88%
4) Have knowledge of the way Chinese culture affects business transactions.	1 0%	2 0%	3 3%	4 12%	5 85%
5) Hire employees that demonstrate an understanding and appreciation of both the U.S. and Chinese culture.	1 0%	2 3%	3 0%	4 68%	5 29%
6) # Double-check translation in order to avoid lost meanings or unintended messages due to language.	1 0%	2 6%	3 18%	4 29%	5 47%
7) # Have a company culture that fosters multiculturalism in hiring choices and daily operations.	1 3%	2 3%	3 26%	4 44%	5 24%
8) # Understand that culture can vary depending on where in China you are doing business.	1 0%	2 9%	3 15%	4 41%	5 35%

<b>In your opinion, how important are the following key components for a U.S. agricultural company when entering the Chinese market:</b>		<b>Unimportant (1)</b>	<b>Slightly Important (2)</b>	<b>Moderately Important (3)</b>	<b>Very Important (4)</b>	<b>Essential (5)</b>
<b>2. <u>Human resource and labor cost:</u></b>						
1)	Hire Chinese Nationals that have education/training experience in the U.S. as key employees.	1 0%	2 6%	3 53%	4 29%	5 12%
2)	Know the background of your Chinese employees.	1 0%	2 0%	3 21%	4 56%	5 24%
3)	Have a strong Chinese management team in China.	1 0%	2 9%	3 9%	4 56%	5 26%
4)	Utilize interpreters or consultants.	1 3%	2 15%	3 44%	4 26%	5 12%
5)	Understand that entering the Chinese marketplace should be for reasons beyond wage differentials between the U.S. and China.	1 0%	2 3%	3 9%	4 21%	5 68%
6)	Understand that the Chinese labor cost for manager-type employees is rising quickly and the differential with the U.S. is closing rapidly.	1 0%	2 12%	3 9%	4 26%	5 53%
7)	# Hire employees that have expertise and knowledge in the science behind the products	1 0%	2 6%	3 15%	4 50%	5 29%
8)	# Create a solid educated workforce that is paid a fair wage.	1 0%	2 3%	3 12%	4 44%	5 41%
9)	# Have managers with empathy for the worker's needs.	1 0%	2 0%	3 18%	4 47%	5 35%

<b>In your opinion, how important are the following key components for a U.S. agricultural company when entering the Chinese market:</b>	<b>Unimportant (1)</b>	<b>Slightly Important (2)</b>	<b>Moderately Important (3)</b>	<b>Very Important (4)</b>	<b>Essential (5)</b>
<b>3. <u>Networks (connections) and partnership:</u></b>					
1) Understand how connections are formed among Chinese people.	<b>1</b> 0%	<b>2</b> 0%	<b>3</b> 18%	<b>4</b> 56%	<b>5</b> 26%
2) Understand the influence of networks in government, business, and industry.	<b>1</b> 0%	<b>2</b> 0%	<b>3</b> 3%	<b>4</b> 56%	<b>5</b> 41%
3) Create good personal networks within appropriate business sectors.	<b>1</b> 0%	<b>2</b> 0%	<b>3</b> 0%	<b>4</b> 71%	<b>5</b> 29%
4) Participate in and support Chinese professional organizations.	<b>1</b> 0%	<b>2</b> 12%	<b>3</b> 59%	<b>4</b> 21%	<b>5</b> 9%
5) Find and evaluate potential business partners in order to have trustworthy partners.	<b>1</b> 0%	<b>2</b> 0%	<b>3</b> 3%	<b>4</b> 56%	<b>5</b> 41%
6) Understand the value of partnerships when entering the Chinese market.	<b>1</b> 0%	<b>2</b> 0%	<b>3</b> 6%	<b>4</b> 65%	<b>5</b> 29%
7) Establish rapport with the Chinese partners.	<b>1</b> 0%	<b>2</b> 0%	<b>3</b> 6%	<b>4</b> 15%	<b>5</b> 79%
8) Partner with Chinese government branches.	<b>1</b> 3%	<b>2</b> 9%	<b>3</b> 18%	<b>4</b> 59%	<b>5</b> 12%
9) Utilize distributors.	<b>1</b> 0%	<b>2</b> 9%	<b>3</b> 62%	<b>4</b> 24%	<b>5</b> 6%
10) Understand the role of experts from Chinese universities in business development.	<b>1</b> 0%	<b>2</b> 9%	<b>3</b> 26%	<b>4</b> 59%	<b>5</b> 6%
11) Develop partnerships with Chinese universities in order to find potential employees.	<b>1</b> 3%	<b>2</b> 9%	<b>3</b> 41%	<b>4</b> 38%	<b>5</b> 9%
12) # Identify the key values and common ground of partners in China.	<b>1</b> 0%	<b>2</b> 3%	<b>3</b> 26%	<b>4</b> 38%	<b>5</b> 32%

<b>In your opinion, how important are the following key components for a U.S. agricultural company when entering the Chinese market:</b>	<b>Unimportant (1)</b>	<b>Slightly Important (2)</b>	<b>Moderately Important (3)</b>	<b>Very Important (4)</b>	<b>Essential (5)</b>
<b>4. <u>Business practices:</u></b>					
1) Understand Chinese business “ground rules.”	<b>1</b> 0%	<b>2</b> 0%	<b>3</b> 9%	<b>4</b> 59%	<b>5</b> 32%
2) Study how/why businesses and government operate the way they do before making any major decisions in China.	<b>1</b> 0%	<b>2</b> 3%	<b>3</b> 12%	<b>4</b> 68%	<b>5</b> 18%
3) Have strong ties to the Chinese regulatory officials that approve the registration of the products you plan to market.	<b>1</b> 0%	<b>2</b> 3%	<b>3</b> 12%	<b>4</b> 68%	<b>5</b> 18%
4) Develop long-term business goals in China.	<b>1</b> 0%	<b>2</b> 0%	<b>3</b> 9%	<b>4</b> 24%	<b>5</b> 68%
5) Have raw materials supplied locally in China.	<b>1</b> 15%	<b>2</b> 9%	<b>3</b> 59%	<b>4</b> 9%	<b>5</b> 9%
6) Have sound infrastructures in China necessary for the establishment of proper business.	<b>1</b> 0%	<b>2</b> 3%	<b>3</b> 18%	<b>4</b> 68%	<b>5</b> 12%
7) Build facilities near customer bases and utilities.	<b>1</b> 3%	<b>2</b> 15%	<b>3</b> 50%	<b>4</b> 29%	<b>5</b> 3%
8) # Communicate effectively with people who actually do the work in China.	<b>1</b> 0%	<b>2</b> 6%	<b>3</b> 6%	<b>4</b> 47%	<b>5</b> 41%
9) # Have face-to-face interactions when doing business in China.	<b>1</b> 0%	<b>2</b> 0%	<b>3</b> 3%	<b>4</b> 47%	<b>5</b> 50%

<b>In your opinion, how important are the following key components for a U.S. agricultural company when entering the Chinese market:</b>		<b>Unimportant (1)</b>	<b>Slightly Important (2)</b>	<b>Moderately Important (3)</b>	<b>Very Important (4)</b>	<b>Essential (5)</b>
<b>5. <u>Product advantages and customer service:</u></b>						
1)	Develop product recognition in China in order to establish the brand.	<b>1</b> 0%	<b>2</b> 0%	<b>3</b> 6%	<b>4</b> 79%	<b>5</b> 15%
2)	Persuade Chinese people to understand the benefits of U.S. technology.	<b>1</b> 3%	<b>2</b> 6%	<b>3</b> 18%	<b>4</b> 62%	<b>5</b> 12%
3)	Study the difference between the current product and the proposed product to make sure the proper value is there.	<b>1</b> 0%	<b>2</b> 0%	<b>3</b> 12%	<b>4</b> 76%	<b>5</b> 12%
4)	Provide service support for product in China.	<b>1</b> 0%	<b>2</b> 0%	<b>3</b> 6%	<b>4</b> 38%	<b>5</b> 56%
5)	Have U.S. based senior management visit and speak with customers in China.	<b>1</b> 0%	<b>2</b> 9%	<b>3</b> 29%	<b>4</b> 21%	<b>5</b> 41%
6)	# Invite Chinese partners to visit your U.S. facilities.	<b>1</b> 0%	<b>2</b> 3%	<b>3</b> 35%	<b>4</b> 38%	<b>5</b> 24%
<b>6. <u>Chinese market:</u></b>						
1)	Investigate the Chinese market in order to gain an understanding of market dynamics.	<b>1</b> 0%	<b>2</b> 0%	<b>3</b> 3%	<b>4</b> 56%	<b>5</b> 41%
2)	Be familiar with the sources of information that provide data necessary to make business decisions.	<b>1</b> 0%	<b>2</b> 0%	<b>3</b> 15%	<b>4</b> 74%	<b>5</b> 12%
3)	Have a solid understanding of Chinese customers and their needs.	<b>1</b> 0%	<b>2</b> 0%	<b>3</b> 3%	<b>4</b> 68%	<b>5</b> 29%
4)	Find a niche that fits the U.S. company and the Chinese market.	<b>1</b> 0%	<b>2</b> 0%	<b>3</b> 15%	<b>4</b> 62%	<b>5</b> 24%
5)	Consider both local consumption and export potential of a product.	<b>1</b> 0%	<b>2</b> 0%	<b>3</b> 12%	<b>4</b> 62%	<b>5</b> 26%
6)	Understand the product pricing system in China.	<b>1</b> 0%	<b>2</b> 0%	<b>3</b> 6%	<b>4</b> 68%	<b>5</b> 26%

<b>In your opinion, how important are the following key components for a U.S. agricultural company when entering the Chinese market:</b>		<b>Unimportant (1)</b>	<b>Slightly Important (2)</b>	<b>Moderately Important (3)</b>	<b>Very Important (4)</b>	<b>Essential (5)</b>
<b>7. <u>Political and economic climate:</u></b>						
1)	Understand the political and economic climate in China as it applies to business development.	1 0%	2 0%	3 3%	4 85%	5 12%
2)	Be familiar with Chinese government regulations and incentives.	1 0%	2 0%	3 3%	4 71%	5 26%
3)	Understand the impact of trade barriers on business between the U.S. and China.	1 0%	2 0%	3 6%	4 71%	5 24%
4)	# Understand the expectations of Chinese government officials.	1 0%	2 3%	3 24%	4 50%	5 24%
5)	# Select the right individuals to help navigate the business climate in China.	1 0%	2 3%	3 9%	4 44%	5 44%
<b>8. <u>Legal counsel and intellectual property:</u></b>						
1)	Understand the Chinese legal system in order to apply to business development.	1 0%	2 9%	3 15%	4 59%	5 18%
2)	Seek help from Chinese legal experts.	1 6%	2 3%	3 9%	4 74%	5 9%
3)	Protect intellectual property rights.	1 3%	2 6%	3 3%	4 29%	5 59%
4)	# Have people on your payroll that are versed in Chinese and U.S. laws.	1 0%	2 15%	3 32%	4 38%	5 15%
<b>9. <u>Ethics and trust:</u></b>						
1)	Be honest and reliable in order to build mutual trust.	1 0%	2 0%	3 3%	4 6%	5 91%
2)	Understand that Chinese definitions of personal ethics may be different from that in the U.S.	1 0%	2 0%	3 9%	4 18%	5 74%
3)	Build trust in U.S. company and its products.	1 0%	2 0%	3 0%	4 18%	5 82%
4)	Develop a strong trusting relationship with the company you are planning to do business with.	1 0%	2 0%	3 0%	4 12%	5 88%

**Part II:** Please mark the **one** appropriate degree of importance, Unimportant (1), Slightly Important (2), Moderately Important (3), Very Important (4), and Essential (5), for the **previously** listed nine sections that U.S. agricultural companies should receive **training** when entering the Chinese market.

**In your opinion, how important are the following nine sections that U.S. agricultural companies should receive training when entering the Chinese market:**

	<b>Unimportant (1)</b>	<b>Slightly Important (2)</b>	<b>Moderately Important (3)</b>	<b>Very Important (4)</b>	<b>Essential (5)</b>
1) Language and culture	1 0%	2 0%	3 12%	4 47%	5 41%
2) Human resource and labor cost in China	1 0%	2 6%	3 29%	4 47%	5 18%
3) Networks (connections) and partnerships in China	1 0%	2 0%	3 3%	4 50%	5 47%
4) Chinese business practices	1 0%	2 0%	3 6%	4 53%	5 41%
5) Product advantages and customer service	1 0%	2 0%	3 3%	4 76%	5 21%
6) Chinese markets	1 0%	2 0%	3 12%	4 35%	5 53%
7) Political and economic climate in China	1 0%	2 9%	3 9%	4 50%	5 32%
8) Legal counsel and intellectual property in China	1 3%	2 9%	3 15%	4 53%	5 21%
9) Ethics and trust	1 0%	2 0%	3 6%	4 35%	5 59%

VITA



## VITA

Jiajiang Peng was born in the city of Taihe, Jiangxi province in the southern part of the People's Republic of China on July 3, 1974. He married Xiaotao Wu in December 2002 and had their two sons, Jacob W. Peng and Jonathan W. Peng, in West Lafayette, Indiana, in 2005 and 2008, respectively.

Jiajiang Peng grew up on a small family farm with four other brothers and sisters in China. He worked hard at school. He is the only child in the family who finished college education and continuous to pursue advanced degrees. He received his B. S. degree in Animal Science in July 1997 from Jiangxi Agricultural University. He joined the faculty in the Department of Animal Science at Jiangxi Agricultural University as an instructor from 1997 to 2001, where he found great interest in teaching, research, and extension work. He also enrolled as a Master's degree student where he worked and finished his coursework during the same period. His excellent communication ability helped him establish very strong relationships with both farmers and industries within Jiangxi during his appointment. He toured most of the country before he came to the United States and attended Michigan State University in January 2002 as a Master's degree student in the Department of Animal Science. In the summer of 2004, he enrolled in the Department of Animal Science at Purdue University for his Ph.D. degree after graduating from Michigan State University. In the summer of 2006, he transferred to the Department of Youth Development and Agricultural Education at Purdue University for

his Ph.D. degree, where he majored in agricultural education and extension with a focus on international agricultural development.