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Marketing Channel Attitudes of Chinese Business-to-Business Companies:

An empirical buyer behavior study

for U.S. companies marketing to Chinese B2B customers

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Jon Edward Cooley

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Marketing Channel Attitudes of Chinese Business-to-Business Companies:

An empirical buyer behavior study for

U.S. companies marketing to Chinese B2B customers

By

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has been approved as a

Dissertation for the Doctor of Business Administration degree

at George Fox University College of Business

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Abstract
Attracted by the large, growing domestic economy in China, many U.S. companies have decided to enter China providing products and services in the business-to-consumer (B2C) and business-to-business (B2B) markets. Combined with traditional marketing channels, Internet marketing is rapidly evolving and becoming a critical strategic element in the marketing department’s tool chest. While much is written about B2C markets and consumer preferences, little of the literature addresses the B2B Chinese customers’ attitudes toward the disparate array of traditional and Internet marketing approaches. Even less addresses Chinese B2B purchasing agents’ receptivity to Western companies soliciting them as new customers. This research compares Chinese B2B purchasing attitudes toward traditional and Internet based marketing solicitations with implications for both academic research and business practitioners. Utilizing an empirical survey of Chinese B2B businesses in Shanghai, Suzhou, Nanjing, and other areas of Jiangsu province, it measures the receptivity and perceptions of marketing channels for solicitations. It finds that individuals’ Internet use for business is pervasive throughout Chinese administrative and management groups regardless of age, education, or job title; however, those who can first be contacted through either traditional or Internet marketing channels are more receptive to additional solicitations through the same channel. Additionally, individuals with prior experience buying from U.S. firms are more receptive to new U.S. solicitations. Finally, the research ranks preference results based on whether prior relationships exist.

Keywords: B2B marketing, digital marketing, Internet marketing, China, China marketing, business to business marketing, B2B customers, Chinese customers
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*Lest we forget, there is a power much greater than ourselves called by many names, supporting and guiding us to our future days.*  --- Jonathan Cooley, 2016
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Chapter 1: Introduction

The Growing Chinese Economy and Domestic Markets

As U.S. companies are looking internationally to expand their markets, China is a major consideration for many. Attracted by China’s large, growing economy and expanding domestic markets, several U.S. companies have decided to enter China in the B2C and B2B markets. This is true not only for large multi-national companies (MNCs) like General Electric, Apple, or General Motors, but also for small and medium sized enterprises (SMEs) who can now utilize the Internet to reach across borders (AmCham, 2014; Constantinides & Fountain, 2008; Friedman, 2006; Peppers & Rogers, 2001). Two primary types of markets exist – businesses marketing to consumers (business-to-consumers or B2C) and businesses marketing to other businesses (business-to-business or B2B). As consumer and business markets grow, the supporting B2B supply chain opportunities grow as well.

In 2010, China became the world’s second largest economy in gross domestic product (GDP). Between 2006 and 2016, GDP averaged 9.5% growth compared to 1.4% growth in the U.S. (Table B1: CIA Factbook, 2016; Trading Economics, 2015; WorldBank, 2016). In recent years China’s growth rate has slowed, but still averaged 8.3% since 2010. To put this in a tangible monetary perspective, China added $3.3 trillion (standard 2005 USD) to GDP from 2006 to 2016 while the U.S. added $1.8 trillion, or nearly double the GDP increases of the U.S.
Well known as the world’s low cost manufacturer, China exports consumer and industrial products worldwide. China’s total exports reached $3.1 trillion USD in 2015, but China is no longer just the world’s low cost manufacturer. In a ranking as early as 2007, China had already tied Germany and the United Kingdom as the world’s third-largest advertising services economy behind the U.S. and Japan (Li & Shoostari, 2007). In 2014, China’s GDP reached $9.5 trillion USD compared to the U.S. at $17.4 trillion and Japan, Germany, and the UK at $4.6t, $3.9t, and $2.9t, respectively (WorldBank, 2015). Although China is highly dependent on its export economy, domestic market growth represented 75% of GDP on average since 2010.

In 2011, Booz & Company (2011) projected China would become the second largest consumer market after the U.S. by 2015. China became the second largest consumer market in 2013 and the world’s largest e-commerce market in that same year. It is now projected to become the world’s largest consumer market in 2018, ahead of the U.S. (Economist, 2014; International Business, 2015).

China’s domestic markets are growing and attractive new markets for Western companies. China’s exports declined from 36% of GDP in 2006 to 23% by 2014. Meanwhile, GDP growth from 2006 to 2015 outpaced the growth rate in exports (Trading Economics, 2015; Worldbank, 2015). From 2010 to 2016, exports represented 25% to 30% of China’s GDP. China’s last five year plan (FYP) in 2010 and indications for the 2016 FYP focus on moving China from an export based economy toward domestically sustainable business-to-business (B2B) and business-to-consumer (B2C) markets (Haacke, 2015).

Within both China’s B2C and B2B markets – and markets worldwide –, the rise of global Internet access has changed the economic face of marketing and commerce
forever. Internet technologies enable remote two-way communications across national borders and markets unavailable in traditional marketing. These Internet marketing channels can supplement, and may replace, traditional marketing advertising channels. A prescient work by thought leader Ravi Achrol in 1991 portends of the globalized future later popularized by Tom Friedman’s (2006) book, *The World is Flat*:

Firms will have to cope with fragmented worldwide markets, and the numerous segments will differ more significantly in preferences and consumption habits because of the tremendous ethnic and cultural diversity. Further, segments will change and restructure continuously, spurred by the intensity of innovation, competition, and information technology. Windows of opportunity will be narrower and more transitory. Current organizational concepts may be hopelessly inadequate to meet the challenges of the turbulent environments ahead… unusual forms of marketing organization (that are ambidextrous and highly flexible) will be needed. (Achrol, 1991, pp.77-78)

Many countries have had Internet access for years, but China’s Internet growth has been unique. Dynamics such as an available Internet infrastructure, rates of adoption of Internet technology and e-commerce, Internet use for personal and business purposes, and cultural influences play important roles. To successfully market B2C or B2B products in China, foreign companies must understand critical marketing factors for both traditional forms of marketing and Internet based marketing. Many of these factors appear unique in China (Chong, Shafaghi & Tan, 2011). Four key issues emerge:

- One size does not fit all. China is not one large homogenous market or culture.
- The Internet is changing everything in China.
- Cultural differences do matter.
• The Chinese government is a profound consideration.

Chapter 2, the literature review, discusses these four issues in detail. Understanding these factors is critical for both B2C and B2B marketing success and customer acquisition. The Internet now plays a major role in U.S. marketing departments’ ability to reach out to Chinese B2C and B2B customers whether the U.S. company has operations in China or remains in the U.S. and exports to China.

**Statement of the Research Problem**

Little research exists examining the organizational buying behavior and market channel preferences of Chinese B2B purchasing agents within Chinese companies. Even fewer studies, if any, have explored the cross-cultural component when traditional and Internet marketing approaches are employed by foreign companies. A marketing literature review notes a trend over the past several years away from B2B organizational buying behavior toward three other areas: a) marketing management, b) consumer behavior, and c) buyer-seller marketing channels and transactions (Backhaus, Lügger & Koch, 2011; Lauterborn, 1990).

**Research Question & Hypotheses**

While much is known about customer marketing channel preferences of B2C buyers in Western countries and in China, little is known about B2B Chinese company purchasing agents’ attitudes and preferences (Kaufmann & Roesch, 2012). Few studies, if any, focus on their attitudes toward traditional and Internet marketing channels when Western companies first market to these Chinese customers. This dissertation explores one basic question: When U.S. companies contact B2B Chinese companies as
prospective new business customers, do the prospective Chinese customers prefer
traditional marketing approaches or newer Internet marketing approaches? From this
research question, the dissertation empirically explores the B2B customer trends within:

- the influence of the purchasing agents’ age influencing the agent’s intent to use
  the Internet for business purposes and to accept Internet marketing;
- the influence of the purchasing agents’ education influencing the agent’s intent to
  use the Internet for business purposes and to accept Internet marketing; and
- the purchasing agents’ and Chinese company’s prior experience buying from U.S.
  companies.

Given that B2B marketing is a broad topic crossing all industries within a cross-
cultural context, this research focuses on U.S. companies using Internet marketing to
solicit new Chinese business in the Eastern China Tier 1 and Tier 2 city economic areas
of Shanghai, Suzhou, Nanjing, and other regions of Jiangsu province. The survey
instrument considers marketing through both traditional and Internet marketing channels
to compare and contrast channel attitudes with purchasing agent demographics, buying
experiences, and Internet use.

To examine the research question and test three hypotheses, this study uses Likert
scaled survey questions and categorical questions to provide quantifiable resulting data
(Appendix A). Demographic questions allow descriptive statistics to define and
understand the study sample and trends. The resulting survey data is then analyzed for
significance and correlations. Three hypotheses are tested. These are:

H1: There is a negative association between age and Internet marketing attitudes
among Chinese B2B purchasing agents such that those who are younger show more
positive attitude towards Internet marketing communications than their older counterparts.

H2: There is a positive association between B2B purchasing agents with advanced education such that those agents with higher levels of education show more positive attitudes towards Internet marketing communications than those agents with less education.

H3: There is a difference between B2B purchasing agents with prior experience buying products/services from U.S. companies such that those with experience demonstrate more positive attitudes to accept Internet marketing communications from U.S. companies than agents without similar experience.

**Research Need and Significance**

The marketing landscape continues to change rapidly (Sarne & Fouts, 2013). The academic rigor required for study design, data collection, assimilation, analysis, and peer reviewed publication has a difficult time keeping up with the rapid evolution of the Internet marketing environment. As discussed in the literature review section, a major gap exists in the marketing organizational buying behavior (OBB) literature and empirical research is essentially non-existent for Western companies marketing in China. Few studies provide marketing insights into the Chinese B2B customers’ attitudes to new marketing channels such as those provided by the Internet, and no research found focuses on unsolicited marketing for new customer acquisition by Western companies – an important aspect for companies entering new markets such as China. This is especially
true when comparing and contrasting traditional marketing approaches with current Internet marketing tools.

As U.S. companies explore marketing to Chinese businesses in China’s maturing markets, a body of literature will undoubtedly evolve much as it has done in Western mature markets. This dissertation focuses on the current gap for U.S. companies marketing to prospective Chinese B2B customers in advanced eastern Chinese urban areas, comparing and contrasting the attitude preferences of these Chinese B2B customers between traditional and Internet marketing channels. For purposes of this paper, B2B customers and purchasing agents represent Chinese business owners, business managers, and purchasing agents involved in or controlling the buying decision for B2B products or services.

An organic outgrowth of this research is extending and expanding studies to other Chinese urban regions in city tiers 1 through 5 and to rural regions. Researchers can then begin to compare and contrast results. As well, future studies can focus on specific industries across these regions to provide an increased granularity valuable to U.S. businesses in those industries.
Definition of Terms

**Adoption Rates** – That speed with which a country or culture adopts new products and technologies. Adoption rates are often dependent on culture, education level, social status, and risk aversion (Davis, Bagozzi & Warshaw, 1989, 1999; Rogers, 2003).

Adoption groups are categorized based upon adoption rates over time:

- **innovators** - the first 2.5% of a population to adopt,
- **early adopters** - the next 13.5% to adopt,
- **early majority** - the next 34%,
- **late minority** - the next 34%, and finally,
- **laggards** - the last 16%.

**Business-to-Consumers Marketing (B2C)** – businesses that sell products and/or services to consumers.

**Business-to-Business Marketing (B2B)** - businesses marketing products and/or services to other businesses. In China, with 42% of businesses government controlled (i.e., state owned enterprises or SOEs) and the associated government influenced supply chains, business-to-government (B2G) marketing is a significant dynamic subset of B2B.

**China Five Year Plan (FYP)** – a central economic planning concept, the FYP identifies specific economic and social development like GDP growth rates and social development goals. Originally developed at the highest levels of government, these are then developed and detailed at subordinate levels for guiding plans and implementation throughout the next five years.

**Customers** – business owners, business managers, and Chinese purchasing agents involved in or controlling a company’s buying decision for B2B products or services.
Customer Centric Marketing – also sometimes referred to as the “4Cs” including customer needs (product), cost/price, communication between sellers (e.g., advertising) and customers (promotion), and product/service convenience (place). It suggests that sales and marketing are no longer company driven, as the Internet provides customers now with the ability to independently initiate, research, review, and execute transactions.

Diffusion - a theory of product and technology adoption throughout a social group or population initially defined by Everett Rogers (2003) as the communication and adoption of innovation over time within social member groups which in turn create social behavioral changes.

E-commerce – online B2C and B2B marketplaces in which suppliers and customers can interact, place orders, and pay for products. It may be a private or public network and may include many other features such as chat rooms and access to other online product information and review resources.

Globalization – a term coined in 1944 and popularized in the U.S. government during U.S. president Bill Clinton’s administration. It was used to describe the increasing borderless relationships between nations, trade, and information. This definition can be applied throughout history as globalization can relate to any multinational or multicultural region such as the globalization effects in Europe and Asia of the “silk road” on trade and culture during earlier times. As used herein, it refers to the recent pace and breadth of international globalization that has leaped logarithmically ahead in both developed and developing nations worldwide.

Gross Merchandise Value (GMV) – total economic product value, usually used as a measure of purchase activity volume.
Guanxi – typically, a Chinese cultural concept of an individual’s personal relationships that can be drawn upon to influence business and business decisions.

Internet Marketing – includes websites and web landing pages, Internet based digital advertising, blogs and content related messages, email, social media, virtual trade shows and events, videologs, and web seminars. For purposes of this study, Internet marketing will be the term used for both digital marketing and other forms of Internet based marketing.

Mass Customization - first defined by Pine in 1993 as a strategy creating value through company and customer interactions at the stage of service delivery, fabrication, or assembly creating customer unique products at a production cost and product price similar to those of mass-produced products.

Marketing – the process of identifying target customers and market segments, generating leads, contacting potential customers, and converting leads to customers. It does not include relationship management of customers.

Netizens – unique, individual Internet users, to be distinguished from total Internet users based on user identities since one person may create multiple online identities or access the Internet through several different Internet platforms (e.g., computers, notebook pads, cell phones, etc.).

Products – includes both B2B products and services

Purchasing agents – Chinese business owners, business managers, and buying agents influencing, or controlling the buying decision for B2B products or services.

Small and Medium Sized Enterprises (SMEs) - companies with less than 500 employees.
Social Media – online Internet blogs, discussion boards, remote but connected social
groups, affiliate groups, and word-of-mouth forums where individuals and companies
post opinions, recommendations, or review and discuss products and current stakeholder
issues.

State Owned Enterprises (SOEs) – China businesses with majority ownership held
by and controlled by the Chinese government. These typically represent strategic and
resource industry sectors such as mining, oil, petrochemicals, banking, airlines and other
mass transit, telecommunications, power generation, construction, and similar industries;
however, other industry companies may be included such as Jin Jiang hotels. Although
these companies may have private, professional management, the government provides
funding and strategic direction while precluding privately held ownership representing 43%
of Chinese companies as of 2011.

Surveys: Attitude Preference - a survey reflecting the psychological tendency
expressed by the degree of a person’s favor or disfavor with a concept. Participants are
asked to rate or rank opinions of discrete concepts. “Preference” and “preference surveys”
are terms often used interchangeably for “attitude” in the popular literature; however, the
literature defines preference surveys to be those related to economic theories regarding
personal or buyer’s perceived “value” or “utility” of a product or service (Phillips,
Johnson & Maddala, 2002). Preference surveys lend themselves to conjoint analysis
where survey participants are asked to choose between preferred scenarios. For purposes
of this paper, “attitude preference” will be used to accurately reflect the buyer attitudes
measured.
**Target Customer** – those business owners, managers, and purchasing agents (i.e., customers) whom a U.S. B2B business directly targets and who influence or control business-to-business purchasing decisions.

**Traditional Marketing** – generally includes print, radio, and television advertising, direct mail, telemarketing, in-person sales calls, tradeshows, conferences, published white papers and industry articles, and public relations. For purposes of this study, traditional marketing will be the term used for these and other forms of non-Internet based marketing.

**Virtual Seminars** – online presentations, discussions, or participative events which may include interactive one-to-one or one-to-many participant features including such things as digital images, video, and audio.

**Western** – for purposes of this study, Western refers to companies in developed countries where capitalistic markets, traditional management and marketing and strategy techniques have been used for many years including the U.S., England, members of the European Union, and other developed western European countries such as Norway, Sweden, Finland, or Switzerland.

**Study Limitations and Delimitations**

**Limitations.**

**Coverage and Non-response Errors** - purchasing agents’ access to the Internet and those agents who do not use or respond to an Internet based survey request may create coverage or non-response errors, as well as those who do not answer all questions; therefore the methodology provides for Internet, paper, and phone surveys, as may be required for China (Davison, Li & Kam, 2008);
Lack of Existing Survey Data – no existing database or study datasets were found to utilize in the research analysis and no existing surveys were found from professional institutions and literature or academic literature for this analysis or comparison purposes.

Industry Bias – certain industries may reflect more international business than others may and may be more likely to utilize the Internet for sourcing and purchasing. Data is collected to reflect general industries, but there is no attempt to isolate these potential industry biases.

Internet Bias – those customers who do not access the Internet may be both inaccessible to the Internet survey and may reflect a negative Internet bias.

Mixed Method Survey – the survey can be delivered in Internet, paper, and phone formats which cause some concern for non-parallel results. Paper surveys delivered in focus group settings potentially display socially acceptable responses in collectivist societies like China; however, individual responses in a group setting do not. The survey may be delivered via one-on-one phone interviews depending on survey result response rates. Any phone interviews will use the same survey format for responses. See Delimitations for methods addressing this concern.

Ordinal Variable Errors - Likert scaled variables such as respondents’ attitude preferences may be considered behavioral measures. Some authors argue that even though behavioral or psychological variables may be scaled into discrete ordinal groups, they are artificial categories of a continuum. This would then affect reliance on a normally distributed sample and question the validity of statistical tests; however, other attitude and preference surveys treat such survey results as quantitative (Newton & Rudestam, 1999). Discrete groups such as age or attitude are treated as ordinal in this analysis.
Government Influence Bias – certain industries will have more governmental influence than others will. The survey sample may or may not reflect industries in which government influence is strong or limited.

Regional Bias - as a general rule, the East coast of China has been exposed to - and participated in - international business and business with Western companies for more years and in greater quantity than other Chinese regions; therefore, studies in Eastern China may not be extensible to other regional Chinese B2B markets.

Sampling Bias - the sample is drawn from a voluntary opt-in survey provided through various business organizations, political organizations, and business contacts. This may preclude certain B2B customers who cannot be reached by any employed form of survey or who do not currently use the Internet for business research or purchases; however, the results will be extensible to the growing population of Chinese customers who do utilize the Internet for business purchasing purposes.

Survey Instrument – no existing, tested survey instruments were found; therefore, a survey instrument had to be developed for this research.

Survey Respondent Bias – respondents may be biased based on prior positive or negative Internet experiences which are not included in the survey questions. Respondents may also be biased based upon the types of products and services purchased, product quality requirements, or other B2B companies’ sales force quality.

Urban Bias - large Chinese urban areas and Tier 1 and Tier 2 cities such as those represented in this study (i.e., Shanghai, Suzhou, Nanjing, and Jiangsu province) have extensive experience in B2B business with Western companies; therefore, the study results may not be extensible to Tier 3, 4 or 5 cities, rural markets, or other China regions.
Delimitations

Coverage and Non-response Errors – China is a unique environment for surveys. Historically, Internet surveys were primarily for IT personnel. The methodology therefore provides for Internet, paper, and phone surveys, adapted as may be required for China.

Internet Bias – the intended defined sample includes those potential Chinese customers and purchasing agents who currently use the Internet for personal and/or business buying decisions, but includes responses to determine their general use of the Internet.

Mixed Method Survey – given the literature, the survey delivery is adapted to adjust for answers delivered in Internet and paper formats which may cause some concern for non-parallel results. Market researchers have found that Chinese respondents tend to provide honest and reliable responses to quantitative questions of fact or opinion as required in this survey. In collectivist societies such as China, reduced anonymity of paper surveys in group settings may have contributed to any mixed-mode discrepancies. Paper surveys in this study were completed and no personally identifying information was collected. Respondents’ surveys and answers were physically isolated from others with separate third party assistants delivering and coding responses.

Survey Instrument Validity - the survey builds on known attitude survey instruments used by Altuna and Konuck (2009) and by Wells, Kleshinski, and Lau (2012). Additionally, the questions selected are based on the B2B Critical Success Factors framework (Chong et al., 2011), the Comparison of Attitude and Preference Surveys (Phillips, Johnson & Maddala, 2002), and the Contextual Constructs Model (CCM) (Knight & Cross, 2012). It has been tested with independent groups and U.S. purchasing
agents in a preliminary study and with native Mandarin speakers for contextual cultural clarity. The survey has been revised accordingly and will be delivered to respondents in only Mandarin.

**Survey Respondent Bias** – although purchasing agents may be biased based on prior positive or negative Internet experiences and experience with U.S. companies, the survey questions include the ability for customer purchasing agents to identify their overall satisfaction with such prior experiences.

**Urban Bias** - large Chinese urban Tier 1 and Tier 2 city areas and provinces such as those represented in this study (i.e., Shanghai, Suzhou, Nanjing, and Jiangsu province) have extensive experience in B2B business with Western companies. Although the study results may not be extensible to Tier 3, 4 or 5 cities, these lower tiered cities typically have developed extensive Internet infrastructure, are rapidly evolving and maturing, and are beginning to participate in global markets. Therefore, study results may be extensible to those tiered cities reflecting this growing maturity, Internet activity, and participation in e-commerce.

**Researcher's Perspective**

The dissertation author has visited China a number of times since 1991 as a tourist, as a business person, and as a graduate professor. As CEO of a U.S. based SME over a five year period, the author moved his company’s U.S. manufacturing and sourcing operations to China and established sourcing and quality strategies throughout many including Eastern, Northern, Southern, and Western regions of China. As a consulting advisor to U.S. and Chinese companies, the author participated in Chinese-American business efforts in various Chinese industries. As a professor and business lecturer, the author provided graduate business classes and seminars in Beijing, Shanghai, Suzhou,
Chengdu, Xi’an, and Zhuhai, China. The author has endeavored to learn written and spoken Mandarin with the assumption that language often holds unique keys to understanding a culture. As a result, the author comes to this research with certain perspectives and biases; however, a concerted effort has been made to vet these perspectives utilizing dissertation reviewers with international and Asian experience to help maintain the academic rigor required of such a study.
Chapter 2: Literature Review

The first chapter introduced the need for this study, identified the primary research focus, the core research question and hypotheses, the need and significance of the research, and the limitations and delimitations of the study. It defined the use of important terms and concluded with a note on the researcher’s perspective. This Chapter 2 reviews the literature relative to Chinese purchasing agents’ attitudes toward traditional and evolving Internet marketing channels. The chapter first examines existing Western marketing literature and trends. It is followed by a review of literature relative to B2B marketing and Chinese B2B customers. Finally, it reflects on these perspectives for U.S. B2B companies doing business in China and with Chinese companies.

Overview

To analyze marketing channels, this investigation includes both traditional and Internet B2B marketing. Traditional marketing channels include radio, television, printed materials such as magazines and advertisements, event sponsorships, telephone and direct mail campaigns, in-person sales calls, and the like. Internet marketing includes all forms of digital marketing over the Internet including digital advertisements, websites, search engines, online events, social media, and the like.

First, the chapter begins with an overview of Western marketing research trends in the context of B2B marketing, Internet marketing, and the growing influence of global
e-commerce. It is followed by a similar review regarding China, specifically. Finally, it provides an overview of challenges for U.S. companies doing B2B business in China and with Chinese companies as a platform for the inferential statistics in Chapter 5, Discussion.

Second, these topics are explored with an overview of China’s Internet diffusion and adoption rates, the influence of demographics and attitudes of the Chinese Internet user community (i.e., Chinese “netizens”), and China’s unique socio-political marketing influences. These are followed by a review of B2B Internet marketing and e-commerce in China.

Finally, the chapter focuses on U.S. firms marketing in China and unique requirements for defining and understanding Chinese markets - specifically including the evolving Internet marketing with traditional marketing channels and techniques. The chapter concludes summarizing unique dynamics for B2B marketing success in China between large U.S. multinational corporations (MNCs) and U.S. small and medium sized enterprises (SMEs).

**B2B Marketing Research: Overview**

The global increase in cross-border communications and commerce has led to a dissimilation of the product supply chain. The resulting national job outsourcing is on the rise worldwide. Facilitated by the advent of Internet communications and e-commerce, new competitive market forces have arisen, but U.S. businesses large and small can and must participate (Friedman, 2006; Meredith, 2007; Samuelson, 2004). The consequence for marketing is that organizations must reach international markets faster through increasingly diverse marketing channels with communications tailored to the local
customer. Emerging international networks, delocalization, growing e-commerce, and the global purchasing power of customers drive these opportunities and challenges (Harris & Ogbanna, 2003).

Although the Internet is a relatively new marketing phenomenon since the late 1990s, one can view it within the context of existing marketing studies. Shaw and Jones (2005) review the history of Western marketing schools of thought from the turn of the 20th century to the year 2000. Most relevant to this discussion is the defined fourth period from 1975 to 2000. The seminal works of Wroe Alderson (Alderson & Cox, 1948), Philip Kotler (Kotler & Levy, 1969), and other authors moved marketing schools from their prior focus on business activities to three areas – a) marketing management, b) consumer behavior, and c) transaction exchanges (i.e., buyer - seller commerce channels and purchase transactions). By 1990, Lauterborn (1990) argued the conventional ‘4Ps’ of marketing (product, price, promotion, and place) were being displaced by consumer centric concepts - the ‘4Cs’ – a) fulfilling customer wants and needs, b) the tangible and intangible costs to satisfy those needs, c) purchase convenience, and d) the communication dialogue between customers and sellers. If true, this places a greater responsibility on marketing to identify customer wants and needs and communicate with them effectively throughout the customers’ search, selection, purchase, and post-purchase experience.

Personal selling and organizational buying behavior (OBB) were the initial focus of studies from 1975 to 1998 with the majority of marketing research focused on business-to-consumer (B2C) research. By 1987, studies had expanded to B2B markets, marketing issues, and marketing organizations. B2B studies grew more rapidly after 1998 (Kaufmann & Roesch, 2012).
After 1998, the B2B subject discussions branched into much greater diversification. Interactions within the buyer-seller relationship including buyer-seller channel selection and marketing management were the predominant research focus. Early research into B2B organizational buying behavior (OBB) and buyer-seller channel selection are rarely addressed today. Empirical research remains undone, and cross-cultural organizational buying behavior is essentially unexplored (Backhaus, Lägger & Koch, 2011). Figure 1 provides a historical perspective of the evolving focus of B2B research.
As reflected in Figure 1, B2B marketing research subjects are becoming increasingly diverse. Since the late 1980’s and early 1990’s research is more segmented while also more interconnected; that is, research in one discipline utilizes, builds upon, and enhances research in other areas. As one will note, academic research in organizational buyer behavior (OBB) – a focus of this dissertation research - is essentially non-existent since 2000. Marketing channel research and management, another subject of this dissertation, has grown since 2009, but this is primarily in supply chain and customer retention research, not customer acquisition research.
A summary of key B2B Western scholarly and professional literature since 2002 is shown in Table 1. One notes that although the scholarly literature represents 64% of all selected studies, these are primarily earlier studies and only 25% are B2B studies. Of all later B2B studies, 56% are found in professional publications and represent studies that are more current since 2012.

Table 1. Selected B2B literature review summary.

<table>
<thead>
<tr>
<th>Research Category</th>
<th>Representative Authors</th>
<th>Year</th>
<th>B2B</th>
<th>All B2B Literature</th>
<th>All Literature</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>57%</td>
<td>44% 56%</td>
<td>64% 36%</td>
</tr>
<tr>
<td>Literature Review</td>
<td></td>
<td></td>
<td>16</td>
<td>7 9</td>
<td>18 10</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Scholarly</td>
<td>Scholarly</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Professional</td>
<td>Professional</td>
</tr>
<tr>
<td>Behavioral</td>
<td>LaPlaca &amp; Kathreis</td>
<td>2009</td>
<td>X</td>
<td>Scholarly</td>
<td>Scholarly</td>
</tr>
<tr>
<td>Attitudes</td>
<td>Nathan &amp; Schmidt</td>
<td>2013</td>
<td></td>
<td>Scholarly</td>
<td>Scholarly</td>
</tr>
<tr>
<td></td>
<td>Ahuna &amp; Konik</td>
<td>2009</td>
<td></td>
<td>Scholarly</td>
<td>Scholarly</td>
</tr>
<tr>
<td></td>
<td>Loo</td>
<td>2012</td>
<td></td>
<td>Scholarly</td>
<td>Scholarly</td>
</tr>
<tr>
<td>Marketing</td>
<td>Zhao, Wang &amp; Huang</td>
<td>2008</td>
<td>X</td>
<td>Scholarly</td>
<td>Scholarly</td>
</tr>
<tr>
<td>Channels</td>
<td>Vasapavan &amp; Qureshi</td>
<td>2009</td>
<td></td>
<td>Scholarly</td>
<td>Scholarly</td>
</tr>
<tr>
<td></td>
<td>Doyle &amp; Bologno</td>
<td>2012</td>
<td>X</td>
<td>Professional</td>
<td>Professional</td>
</tr>
<tr>
<td></td>
<td>Garnett</td>
<td>2013</td>
<td>X</td>
<td>Professional</td>
<td>Professional</td>
</tr>
<tr>
<td>Internet</td>
<td>Tan, Tyler &amp; Monica</td>
<td>2007</td>
<td>X</td>
<td>Scholarly</td>
<td>Scholarly</td>
</tr>
<tr>
<td>Marketing</td>
<td>Harung, Ang &amp; Slanguan</td>
<td>2009</td>
<td></td>
<td>Scholarly</td>
<td>Scholarly</td>
</tr>
<tr>
<td></td>
<td>Aberdein</td>
<td>2012</td>
<td>X</td>
<td>Professional</td>
<td>Professional</td>
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<td></td>
<td>Shua</td>
<td>2012</td>
<td></td>
<td>Scholarly</td>
<td>Scholarly</td>
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<td></td>
<td>Forrester</td>
<td>2013</td>
<td>X</td>
<td>Professional</td>
<td>Professional</td>
</tr>
<tr>
<td></td>
<td>Silverstein</td>
<td>2013</td>
<td>X</td>
<td>Professional</td>
<td>Professional</td>
</tr>
<tr>
<td>Marketing</td>
<td>Eid, Truman &amp; Abdel</td>
<td>2002</td>
<td>X</td>
<td>Scholarly</td>
<td>Scholarly</td>
</tr>
<tr>
<td>Success and</td>
<td>Ambler &amp; Xieun</td>
<td>2003</td>
<td></td>
<td>Professional</td>
<td>Professional</td>
</tr>
<tr>
<td>eCommerce in China</td>
<td>Lee</td>
<td>2007</td>
<td>X</td>
<td>Professional</td>
<td>Professional</td>
</tr>
<tr>
<td></td>
<td>Li &amp; Shoostani</td>
<td>2007</td>
<td></td>
<td>Professional</td>
<td>Professional</td>
</tr>
<tr>
<td></td>
<td>Tan, Tyler &amp; Masica</td>
<td>2007</td>
<td>X</td>
<td>Scholarly</td>
<td>Scholarly</td>
</tr>
<tr>
<td></td>
<td>Harrison &amp; Medley</td>
<td>2010</td>
<td>X</td>
<td>Professional</td>
<td>Professional</td>
</tr>
<tr>
<td></td>
<td>Choong, Shatifi &amp; Tan</td>
<td>2011</td>
<td>X</td>
<td>Scholarly</td>
<td>Scholarly</td>
</tr>
<tr>
<td></td>
<td>Green</td>
<td>2012</td>
<td></td>
<td>Scholarly</td>
<td>Scholarly</td>
</tr>
<tr>
<td></td>
<td>AmCham</td>
<td>2013</td>
<td>X</td>
<td>Professional</td>
<td>Professional</td>
</tr>
</tbody>
</table>

Summarizing the B2B literature research on international marketing, there are four recurring themes explored:

- creating effective, relevant marketing messages and content;
- understanding national and regional regulations;
- identifying and employing available and preferred marketing channels; and
- adapting marketing to cultural norms, language conventions, and customer expectations.

While each of these are significant areas for further research, this dissertation explores cross-cultural B2B Chinese customers and marketing channels for two of these – identifying preferred marketing channels and adapting marketing to cultural norms.

**B2B Marketing Research: Internet Trends**

Research studies, the professional business press, and other business researchers concur with the prevalent facts - B2B marketing is a global phenomenon (Aberdeen, 2012; Gartner, 2013; Ngai 2005; Pagano, 2009; Spillan, 2012; Tsu & Tan, 2002). Using new Internet delivery technologies, there is an ability to communicate almost seamlessly internationally, albeit not necessarily contextually well. It allows commerce to reach across national borders and cultural boundaries. Reduced trade barriers between foreign countries have helped expand this ability dramatically. E-commerce platforms allow companies worldwide to offer goods and services that were previously unknown and unattainable in regions remote from the source. Internet tools and methods of marketing communications and activities are often referred to as Internet marketing or digital marketing. For purposes of this dissertation, the term “Internet marketing” is used inclusively.

**Evolving communication and collaborative tools for marketing.** Marketers now have ways to dynamically and uniquely interact with target customers. One of many examples is shopping agent software algorithms which automatically match products to
customers’ self-defined needs. These agents rapidly mine Internet websites or companies’ product catalogues and specifications doing a parametric search for the customer.

Another example is collaborative filtering agents which make product recommendations from like-minded users. These are sourced electronically from social media, product reviews, and other Internet sites. It returns these opinions to the buyer immediately in real-time. Never before has marketing had the opportunity to mass customize a customers’ search, communication, and buying experience (Strauss, Frost & Ansary, 2009).

**Internet and e-commerce adoption rates.** User attitudes and behavioral intentions often also reflect technology adoption rates and technology diffusion (Van Ittersum & Feinberg, 2010). Two fundamental works in technology adoption are by Davis, Bagozzi, and Warshaw (1989, 1999) who modeled computer and technology adoption rates. Diffusion theory was initially defined by Everett Rogers as the adoption of innovation over time and communication within social groups, creating behavioral changes within the social group members. Rates of adoption are grouped to include the innovators – the first 2.5% adopting a new technology, followed by the early adopters (next 13.5%), early majority (next 34%), the late minority (next 34%), and finally, the adoption laggards (last 16%). Diffusion rates are often dependent on education level, social status, culture, and risk aversion (Rogers, 2003). This study reflects the elements of customers’ educational level, as well as the Chinese cultural memes and inherent risk aversion identified by Hofstede (1988).

Consistent with the body of literature, authors Eid, Trueman, and Abdel (2002) conclude that Internet adoption rates and performance are significantly relevant to commercial uses, especially in emerging countries such as China has been. Perceived usefulness has a strong correlation to people’s intention to use computers and online
transactions. One might anticipate that “ease of use” would also be important, but it has only a small positive effect on purchase intention and subsides to negligible over time. Trust in e-commerce transactions, however, is a recurring and significant issue for e-commerce adoption rates. Given the rapid rise and performance of e-commerce worldwide, the required adoption rates and critical success factors have apparently been achieved, benefiting the projected future growth in B2B Internet marketing even in China (Casella, 2007; Cina & Chen, 1999; Chong, Shafaghi & Tan, 2011).

The role of marketing within this Internet revolution is important to understanding the evolving role of marketing and prioritizing marketing investments. Doyle and Balegno (2012) explore traditional marketing methods, Internet channel adoption, and performance. In a survey of 1,700 B2B Western marketers across multiple companies and industries worldwide, the authors found that these marketers’ primary goals are to generate quality marketing leads and convert those leads to customers. Marketers ranked these two goals ahead of product branding, company reputation, and target market awareness. The authors also measured Western marketers’ perceptions of effectiveness (i.e., lead quantity and quality) for the selected marketing channels shown in Figure 2. The study used modified attitude preference scales.

Based on this information (Doyle & Balegno, 2012), Figure 2 ranks Western companies’ marketing investments. Investments include allocated budget dollars and other resources such as personnel. It demonstrates that the majority of marketing investments are focused on traditional Trade Show marketing and basic Internet-based website development (16% and 12%, respectively). Fewer investments were made in other Internet-based marketing methods such as email marketing (10%), paid search (10%), or virtual events/webinars (5%). Traditional print advertising and direct mail still
receive a substantial proportion of marketing budgets (17% collectively). Investments in digital advertising and content marketing such as white papers, conference or industry presentations, and online video are notably absent. It is unclear whether these may be grouped into one of the reported categories.

Figure 2. Bar graph showing Western marketers’ budget investments ranked by marketing technology.
When this data is grouped for each marketing channel – traditional and Internet – one notes in Figure 3 that on the whole, budgets do favor Internet channel investments (53%) over traditional channel investments (47%). Since marketing automation is an internal investment for marketing efficiencies, it is not included in this channel comparison. Marketing managers indicated their primary goal is to generate a quantity of quality leads; therefore, one must consider the efficacy of these channel investments. The marketers ranked the Internet channels as generating the most effective results (Doyle & Balegno, 2012) including company website utilization (50% of respondents), virtual events/webinars (43%), email marketing (40%), Internet search engine optimization (SEO, 36%), and telemarketing (35%). Given that investments in traditional and Internet marketing channels are almost equal, an apparent incongruence occurs, but Internet channels are perceived as superior in performance. This may be explained by greater efficiencies in Internet marketing and reduced costs associated with implementing them, but the authors do not provide any insights.
Figure 3. Bar graph showing Western marketers’ budget investments by traditional and Internet marketing channels and technology.

Data will vary by industry and company, of course, but the overall trends and investment biases are important when considering Internet marketing channels and customers’ attitudes and receptivity to these channels. Unfortunately, the relevance of these perceptions to the Chinese market is uncertain, as the study clarifies neither the survey sample demographics nor the target customers of this dissertation – potential Chinese company customers.

Trust, attitudes, and e-commerce. Trust and attitudes are emotional elements of e-commerce. Nathan and Schmidt’s (2013) professional business survey of 3,000 Western purchasing agents from 36 brands cross a variety of industries compared purchasing agents’ emotional content and personal connections to B2B businesses. The
authors then compared these results to their earlier survey for emotional content and connections to B2C businesses. The authors found there is a higher emotional content and connection for customers of B2B businesses than customers of B2C businesses. While this may seem counter intuitive, the authors hold that it makes sense; B2C consumer purchasing decisions involve relatively low value transactions and may even be returnable. In contrast, B2B purchasing decisions may be of high value with long term effects and huge perceived commitment risks. The authors also found that customers were eight times (8x) more likely to buy a B2B product when there was a perceived personal gain such as purchase pride, career advancement, or increased company confidence in the buyer.

Other professional research has been conducted based on customers’ trust and ranked positive attitudes. In one example, Gartner (2013) surveyed 503 Western B2B customers’ channel preferences, focusing on customer retention for ten marketing channels. The ten customer retention channels shown in Figure 4 include:

- access to quality post purchase support,
- regular and easy provider contact,
- custom tailored pricing and product offers,
- customer input to product development,
- quality and usefulness of the supplier’s website,
- relevant published supplier white papers,
- special product related events,
- work related networking,
- social media presence and third party attitudes, and
- monthly newsletters.

![Chart](image)

**Figure 4.** Marketing activities rated by Western marketers as extremely important in establishing, maintaining, and growing the customer relationship.

Note: Adapted from Gartner. (2013). Marketing activities rated as extremely important in maintaining or growing the relationship with the provider.

The study included both traditional and Internet marketing channels. Results describe Western purchasing agents’ attitudes when choosing to buy – or continue to buy– a supplier’s products. The results can be categorized into pre-sale and post-sale activities (Figure 4). Pre-sale activities include:

- tailored sales offers – the company’s ability to customize product offerings and pricing to the customer’s specific needs;
CHINESE BUYERS’ DIGITAL B2B MARKETING PREFERENCES

- input to supplier’s product development – the ability for customers to influence the supplier’s future product functions and features;
- supplier’s website – not only the quality and content, but the ability to interact with the company, research product specifications, complete e-commerce transactions, and the like;
- white papers – the supplier’s contribution to educational industry content research; and
- work and industry related events – the supplier’s participation and influence in company or product associated events, the industry, or local business community, continuing social media, and monthly newsletters.

Post-sale activities include the balance of activities and some overlap pre-sale activities as noted in the chart. Post-sale activities include those such as supplier’s published white papers; work and industry related events such as conferences, industry meetings, and web events; on-going contact with customers through social media and newsletters; direct on-going contact directly with the customer; and – most importantly – customer access to supplier support.

Although this study explored customer retention rather than customer acquisition, its conclusions are still relevant to customer acquisition. It highlights those trusted resources that regularly influence B2B customers, many of which can be delivered via the Internet such as custom tailored offers or customer support.

B2B customers are adopting the Internet and beginning to demand online tools similar to those available to B2C customers. Forrester (2013) completed a 2012 study across 717 B2B companies in North America, the Asia Pacific region, and Europe/Middle East with 240 respondents from each region. Of these, 50% of all
companies were already selling B2B directly online. The study found that these companies’ B2B customers were already demanding online tools to serve them on their own terms and at their own times.

When comparing online and off-line customers, the Forrester (2013) study also found that online B2B customers in comparison to off-line customers are a) more frequent buyers, b) have higher average order volumes, c) tend to be more product/brand/company loyal, and d) are more easily reached and influenced for add-on sales, cross-product sales, and up-sell offers. Studies have also demonstrated that buyer attitudes towards Internet advertising (e.g., mobile advertisements) and behavioral purchase intention demonstrate a positive correlation (Altuna & Kanuk, 2009; Tsang, Ho & Liang, 2004); that is, the more acceptable a buyer finds Internet advertising, the more likely such advertising will influence the potential customer’s purchase intent. Clearly, the Internet has a growing important role with B2B customers. This leads one to review studies regarding the initial marketing approaches used to solicit new B2B customers. This is investigated in detail in the later sections in *B2B Marketing Research: China*.

**Globalization: Adapting Marketing to Local Cultures**

Many studies have focused on the cultural issues for B2C and B2B business. The literature concurs overwhelmingly that companies selling in foreign markets must adapt both products and marketing approaches to national and local culture (Hofstede & Bond, 1988; Johnson, Lenartowicz & Apud, 2006; Schulze, 2012). This applies especially to China. As Hofstede notes about Chinese culture in his seminal 1988 article and confirmed in the subsequent body of cross-cultural work, “the values dimension associated with …East Asiatic cultures …took the Chinese Value Survey - an Eastern
instrument - to identify this dimension. This is a powerful illustration of how fundamental
a phenomenon culture is” (Hofstede, 2001, p.19). As a result of these cultural differences,
Chinese companies score higher than Western companies score on power distance;
strongly tend toward collectivism rather than individualism; are masculine more than
feminine; score higher on long-term orientation; and are highly risk-adverse (Hofstede,
1988). Arias (1998) posits that these differences lead to four decision making constants,
differentiating them from Western decision making: a) the family is the economic actor
rather than the firm, b) decisions are strongly influenced by a long-term horizon, c)
people and organizations seek an approach to risk reduction, and d) people and
organizations look for group acceptance. Marketing to Chinese businesses, the marketing
channels employed, and the marketing messages, therefore, must reflect these differences.

B2B Marketing Research: China

A literature review produced no studies for Chinese B2B customers that address
customers’ perceived preferences when first approached by companies using Internet
marketing – a major component of this dissertation. Several studies have been conducted
on the purchase intent effects of Internet advertising, but these address B2C consumer
behavior. The professional literature explores the existing online B2B buyer, but these
focus on the ability to up-sell and cross-sell these customers, and the ability to improve
customer satisfaction and company or brand loyalty (Aberdeen, 2012; AgMarketing, n.d.;
Doyle & Balegno, 2012; Gartner, 2013; McLellan, 2013; Sarner & Fouts, 2013; Schulze,

A substantial body of literature documents the rise of China’s B2C markets,
Internet use, and e-commerce. Much of the current literature appears in professional and
industry articles with little from the academic literature (CNNIC, 2004, 2009, 2013; IDC, 2009; iResearch, 2009). Early studies of China Internet marketing and B2B e-commerce before 2000 were often pessimistic, suggesting that the Chinese Internet infrastructure, slow diffusion and adoption rates and other issues would preclude rapid growth (Cina & Chen, 1999). Actual results, however, have proven that China’s Internet infrastructure and subsequent adoption developed sufficiently for China to become the largest B2C and B2B e-commerce market in the world by 2013 with $300 billion USD, surpassing the $252 billion e-commerce market in the U.S. (iResearch, 2013; Jingting, 2013; Millward, 2013; Sabrina, 2014).

Including both academic and business market research, the majority of published research to date has been commissioned business research. Table 2 represents the B2B commissioned market research areas by foreign entities and businesses through 2005 in China.

Table 2. China market research activity by Chinese and foreign entities.

<table>
<thead>
<tr>
<th>Sector</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering &amp; Machinery</td>
<td>20%</td>
</tr>
<tr>
<td>Pharmaceutical &amp; Medical</td>
<td>17%</td>
</tr>
<tr>
<td>Petrochemical, Chemical &amp; Gases</td>
<td>14%</td>
</tr>
<tr>
<td>IT &amp; Telecom</td>
<td>10%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>10%</td>
</tr>
<tr>
<td>Automotive</td>
<td>10%</td>
</tr>
<tr>
<td>Finance</td>
<td>7%</td>
</tr>
<tr>
<td>Construction</td>
<td>5%</td>
</tr>
<tr>
<td>Other</td>
<td>7%</td>
</tr>
</tbody>
</table>

Across all industries, the character of research in China is markedly different from that in Western countries (Harrison, 2005). Western research tends to reflect mature market interests - branding, customer loyalty, employee and customer satisfaction, concept and product testing, and market segmentation. In China, which still primarily consists of emerging markets, the majority of commissioned market research is by foreign entities and 60% focused on typical emerging market assessments – markets’ structure, size, and key players. The balance of the B2B research includes product pricing and market entry strategies for foreign companies through acquisition or partnering with Chinese businesses. A search of the Western literature from 1998 to 2005 and 2006 to 2016 indicates that Chinese market segmentation and customer satisfaction studies are increasing in industries maturing markets such as fashion, personal electronics, education, natural resources, or energy.

One of the most relevant China B2B literature reviews was by Wang and Song (2011) demonstrating the different focus between Chinese and Western research. The authors reviewed 23 mainstream Western management and marketing academic journals from 1990 through 2009. The authors noted that professional journals such as *Harvard Business Review* or *McKinsey Quarterly* published insightful articles on Chinese B2B, but these were classified as professional research and not included in their study as they did not provide the academic “careful theorization and rigorous investigation” (Wang & Song, 2011, p. 6). The academic literature focused on three business and marketing research areas:

- How do extant business marketing theories apply to China?
- How do applicable theories apply across cultures?
- What are the unique Chinese marketing characteristics?
Most of the reviewed articles focus on theoretical concepts even though the research may have employed empirical methodologies such as surveys (55%), secondary data (16%), or case studies (10%). The authors conclude with a quote from researcher A.S. Tsui, “the field of Chinese management research direly needs more theory-building studies and less pure application of Western theories” (Tsui 2006: 5, as cited by Wang & Song, 2011, p. 16). This dissertation focuses on empirically based marketing research which may provide a base component for building uniquely Chinese theory-building constructs.

**Internet B2B Marketing Trends: China**

This section and the following sections explore Internet marketing in China through Internet user demographics, attitudes toward e-commerce, and socio-political effects. Both traditional and Internet based marketing in China reflect three intangible requirements - trust, education, and web presence. Zhao, Wang, and Huang (2008) identify these factors, commonly echoed in other studies (Casella, 2007; Chong, Shafaghi & Tan, 2011; Eid, Gefen, Karahanna & Straub, 2003; Nathan & Schmidt, 2013; Trueman & Abdel, 2002). Collectively, these authors identify key factors enhancing the attractiveness of companies’ content for Chinese e-commerce. Although these factors may not necessarily be unique to China, they include reduced costs of sourcing and partnering (presence); reduced transaction risks – financial, delivery, frauds, and fakes (trust); information confirming third party company creditability (trust and presence); access to credit worthy payment and receipt sources and processing (trust and presence); and personalized and customized services (customer centric marketing education).
**Chinese netizen demographics.** Taking an Internet snapshot today, Chinese netizens are equally represented by women and men. Age and education further define the broader netizen population. Sixty percent (60%) of Internet netizens are between the ages of 20 and 50. Of those netizens conducting e-commerce (B2C and B2B customers combined), 85% have post high school degrees. Social media sites are used by 91% of China’s netizens (CNNIC, 2014). Internet customers, therefore, represent a youthful to middle aged, educated, and socially connected buying group (CNNIC, 2009).

Mobile Internet marketing reflects similar results. A U.S. study of mobile Internet marketing found that the best demographic segment for mobile marketing was men in the Net Generation (or “Gen Y”) born after 1980 and between the ages of 18 and 34 (Comscore M:Metrics, 2010). Expanding this research, a 2012 cross-cultural study among U.S., French, and Chinese Net Generation mobile users found that Chinese mobile users actually had more positive attitudes toward mobile Internet marketing than either the French or the American mobile users (Wells, Kleshinski & Lau, 2012).

Gender plays a nominal role in personal internet use, but a larger role for males in business. Wastlund, Norlander, and Archer (2001) studied 329 Swedish university students of which 65% were female respondents and 35% male. The authors found no significant gender differences regarding personal online Internet use (e.g., “chatting”) or for online purchase transactions. The authors did find a significant difference between males and females for work related Internet use: 50% of males used the Internet for this purpose but only 37% of females. One might anticipate that responses for Internet attitudes and preferences would have been similar between males and females given that Internet use is generally 50% male and 50% female and the survey sample was relatively uniform. The authors’ generalization to the larger netizen population from their study,
however, may include certain limitations. The survey sample was educated and presumably under age 30 in a single Western culture. Additionally, the study is now 15 years old. Recent studies have shown a positive correlation between Internet adoption and education level and a negative correlation between Internet adoption and age. That is, younger, educated users are more likely to adopt new Internet uses (Pew, 2010; Rich, 2010; Rogers, 2003; Wells, Kleshinski & Lau, 2012). For purposes of understanding the current Chinese netizen population, one must investigate the effects of gender, age, and education beyond Western populations. Chinese netizens and Internet use have changed considerably since the Wastlund study and may or may not reflect even more current Western based research.

When considering Chinese primary resources for reliable product information, Figure 5 suggests that netizen customers use the Internet 70% of the time and family and friends 53% of the time as their primary resources. Other forms of advertising and traditional marketing vehicles such as TV, advertisements, and company sponsored activities each represent less than 10% of Chinese consumers’ primary information resources and 28.6% collectively (CNNIC, 2009). Family and friends have typically been considered a strong cultural word-of-mouth endorsement, especially in China. These results suggest an attitudinal evolution toward Internet information in contrast to earlier studies indicating that the family is the primary economic actor (Arias, 1998). Given the limited current research, this dissertation includes gender, age, educational level, and primary sources for product references to update and extend these and Wastlund’s (2001) dynamics to the Chinese B2B netizen population.
China’s rising middle class. As workers move to cities and China’s GDP rises, so do the living wages of Chinese citizens. GDP per capita has grown an average of 9% per year since 2006 (Worldbank, 2015). China’s goal is to double the size of its middle class by 2020, projected to reach over 600 million by 2025 (McKinsey, 2006). To put these numbers in perspective, the entire U.S. population is approximately 320 million with a middle class of 104 million (Pew Research & Kochhar, 2015) to 160 million (USDOC, 2010) depending on the reference source.

With the rise of China’s middle class and expanding business economy, China is becoming a national consumer and business market in its own right. The point of this discussion is not about the finite size of China’s middle class, but that it is very large and
growing as are their discretionary funds. Although this has a direct impact in B2C markets, it has important implications for B2B markets as well. B2B companies operate within the component supply chains of many B2C companies, and B2B suppliers must understand B2C market dynamics; therefore, a clear understanding of China’s changing demographics is warranted.

Global comparisons of middle class are difficult at best, however. Pew Research (Kochhar, 2015) defines a global middle class on the basis of standardized purchasing power parity (PPP) in U.S. dollars, normalized for a family of four persons. The global lower-middle income family lives on $10 to $20 per person per day ($14,600 to $29,200 USD per year) and upper-middle income families live on $20 to $50 per person per day ($29,201 to $73,000 USD per year). By this definition, the Chinese middle class was approximately 300 million people in 2010 while projected to reach the 600 million by 2025.

The U.S. self-defines the middle class on a number of criteria, not just income (USDOC, 2010). On an income basis, the USDOC defined middle class earns $50,800 to $122,800, representing 50% of Americans or 160 million people. In contrast, this would have been 126 million people based on the Pew Research global classifications in 2015; that is, 7% of Americans (22 million) were middle income families, 32% (104 million) were upper middle income, and 56% (181 million) were high income families living on more than $50 per day ($73,000 annual income or more). Since the U.S. self-defined poverty line for a family of four was $23,021 in 2011 (Kochhar, 2015), the U.S. middle class can be estimated as approximately 104 million (income between $20 and $50 per person per day in a family of four).
Use of discretionary income and use of savings vary dramatically between the Chinese and American middle class and is an important marketing factor. This is also true for business. For example, we can compare the aggregate savings rate for households, businesses, and government between China and the U.S. In 2013, China averaged a 51% aggregate savings rate while the U.S. averaged 17% (World Bank, 2014). This represents a significant disparity in the concept of disposable discretionary funds for both consumers and businesses. Corporate savings in China represented nearly 66% of the growth in the aggregate Chinese savings rate, and this savings rate has been high historically when compared to other global businesses (Ma & Yi, 2010). Since 1992, Chinese corporate savings as a percent of GDP have grown from 12% to 19% of GDP in 2008 or $663 trillion USD. It has remained relatively stable between 18% and 20% throughout this time frame (Chivakul & Lam, 2015). For businesses selling to other businesses, this concept of frugality and price to value, therefore, pervades buying decisions.

*China’s socio-political influences.* Given the dramatic and rapid economic and business changes in China, one must consider the socio-political context in which Chinese customers have lived. Many of today’s Chinese middle class were born after the Cultural Revolution (1966-1967) and during the rapidly growing and increasingly prosperous Chinese economy. They never experienced China’s history of massive poverty, political upheaval, or economic strife. Table 3 compares and contrasts customers’ age and this environment. Similar U.S. information is included for the reader’s reference.

Table 3. Age and the socio-political evolution of China and the U.S.
# CHINESE BUYERS' DIGITAL B2B MARKETING PREFERENCES

<table>
<thead>
<tr>
<th>Age Group</th>
<th>China</th>
<th>America</th>
</tr>
</thead>
<tbody>
<tr>
<td>70+</td>
<td>1921-1937 Guomindang under Chiang Kai-shek; 1928 invasion and occupation by Japanese - Guomindang and Communists (CCP) work together to fight Japanese.</td>
<td>1907-1912 Oklahoma, New Mexico and Arizona become states; 1907 Lindbergh crosses Atlantic; 1929 Stock Market Crash and Great Depression; 1933 Roosevelt's &quot;New Deal&quot;</td>
</tr>
<tr>
<td>50 – 70</td>
<td>Mao Zedong announces the founding of the People’s Republic of China; Chiang Kai-shek and Guomindang forces retreat to Taiwan with many of the riches and museums pieces of China; People’s Liberation Army enters Tibet; 1953 First 5 Year Plan; 1955-1958 Nationalization of Industry and Trade; Collectivism of Agriculture and Commerce; 1957 Anti-Rightist Campaign; 1958-1961 Great Leap Forward; 1959 PLA represers Tibet uprising; 14th Dalai Lama leaves Tibet; 1960 Soviet Union withdraws experts from China; 1959-1962 the Great Famine.</td>
<td>1941 Pearl Harbor, America enters World War II; 1945 Atomic bomb dropped on Japan; 1954 First nuclear sub; Vietnam war begins; 1955 Supreme Court orders desegregation; 1950 Alaska and Hawaii enter the union; 1963 Peace Corp founded; 1962 Cuban Missile crisis;</td>
</tr>
<tr>
<td>30 – 39</td>
<td>1975 Chiang Kai-shek dies; 1976 Zhou Enlai and Mao Zedong die; Gang of Four arrested; 1978 Deng Xiaoping promotes Four Modernizations for &quot;Reform and Open Up&quot;; 1978-1982 Xiaogang Village independent farming experiment and final approval 1979 US and China formally recognize each other; Deng Xiaoping is first Chinese leader to visit US; One child policy implemented; 1980 Special Economic Zones begin, Shenzhen is first; Japan has 2nd largest economy; automotive joint ventures with MNCs</td>
<td>1973 President Nixon resigns; 1975 Vietnam war ends; 1976 Viking lands on Mars; 1976 Personal computers marketed;</td>
</tr>
<tr>
<td>20 – 29</td>
<td>1988 First 2-party elections in Taiwan; 1989 Tiananmen Square protests (unknown to Chinese masses and not recognized in schools); Gorbadchov visits China, Berlin Wall demolished.</td>
<td>1991 Gulf War in Iraq; 1993 World Wide web expands;</td>
</tr>
<tr>
<td>under 10</td>
<td>2004 Guo &amp; Chua's 2005 book Will the Boat Sink the Water?, A Passionate Life is banned; 2006 Mobile phone sales exceed 100 million; 2010 China becomes world's second largest economy.</td>
<td>2008-present Global Financial crises; American forces decrease in Iraq, Increase in Afghanistan; major healthcare reform;</td>
</tr>
</tbody>
</table>

Note: Adapted from Curriculum Specialists, 2009
Until the “great opening up” of China beginning with Deng Xiaoping in 1978 after Mao Zedong’s death, the Chinese people were not exposed to capitalism, market forces, global international relations, or foreign products. Since 1990 with the rapidly growing economy and increasing access to Western cultures, products, and the Internet, there has been significant evolution in China’s social environment, Internet device diffusion and adoption, and e-commerce buying habits in both B2C and B2B markets.

With China’s growing, youthful middle class population, China is beginning to change. Cultures are not stagnant, and these changes must be monitored and reflected by marketing messages and outreach channels. China’s younger generation who were born after 1980 and became young adults in the new millennium (often called Millenials or Generation Y), and this group is becoming more culturally individualistic (Jiang, 2010; Parker, Haytko & Hermans, 2009).

While China’s government continues to exert control over Internet content, netizens’ expectations for access to global information and products continue to increase. As a result, one can anticipate any current Chinese survey for Internet attitudes will produce similar results to those found in Western studies; that is, a positive correlation between the progressive, younger Chinese generations and Internet adoption rates (Wells, Kleshinski & Lau, 2012). While this may be a reasonable assumption, few studies have confirmed these attitudes empirically, and no such research appears to exist for B2B customers.

Internet and e-commerce adoption rates: China. As noted, user resistance to new technology affects diffusion and adoption rates which in turn affect the success of both the technology and companies attempting to utilize the technology. In the years from 1996 to 2002, international B2B Internet marketing received considerable attention.
Several authors completed in-depth studies to determine critical success factors to improve and enhance adoption of B2B marketing (Avlontis & Karayanni, 2000; Hamill & Gregory, 1997; Hoffman et al., 1999; Porter, 2001).

*Adoption rates and performance measures.* Performance measures of market metrics reflect Internet technology diffusion and adoption rates which influence e-commerce trends. Ambler and Xiucun (2003) conducted a survey of MBA graduated Chinese managers and compared the results to a prior UK study for nineteen market measures. These measures can be broadly grouped into three factions, a) financial performance, b) market share components (e.g., number of new customers, lost customers, customer satisfaction), and c) customer perceived price and quality. The study found that a broad range of financial measures were statistically more important to UK managers while Chinese firms tended to use profit as the overriding, company-wide financial success measure. The Chinese managers represented market share as the primary function of marketing, and this measure was significantly more important to Chinese managers than to their UK counterparts. During the 1990s and the later rapid adoption of e-commerce, Chinese firms entered a period of intensified domestic and international competition that lasts into today, reflected by this focus on market share. Customer satisfaction and customer centric marketing was found not to be a significant factor. Although Internet adoption and e-commerce have grown rapidly in China, as Chinese markets and marketing mature, one would anticipate that customer retention (e.g., customer satisfaction and customer centric marketing) will become a more important competitive marketing measure.
A literature review identified twenty-one B2B success factors (Eid, Trueman, and Abdel, 2002). Although not Internet specific, they do provide certain measures for Internet marketing. These factors can be grouped into five categories:

- Marketing strategy – consistent with Porter (2001) and others, the Internet is an integral part of marketing, but not the sole component;

- Global dimensions – companies must enter and adapt to foreign marketing environments;

- Website design and functionality – this has extended since 2002 to a much broader Internet presence including concepts such as search engine strategies, e-commerce adaptation, social media and other factors;

- Internal company factors - companies prepared to invest the money and manpower for global B2B marketing including technology infrastructure, internal culture, a redefined role for sales and marketing, and the importance of internal training; and

- Related external factors - perceived Internet trust and company/brand presence, security, direct positive relationships with the suppliers’ B2B customers, affordable access to the supplier, and customer acceptance of B2B strategies.

Studies within the category related external factors echo much of this literature review when considering U.S. companies doing business in China. Porter (2001) and others argue that the Internet must act as a complementary component of marketing, cautioning that B2B customers often have both trusted local and remote purchasing options (i.e., substitute buying power) and that those companies who do purchase online also purchase through other marketing channels and means. Therefore, marketing strategies must be blended and measured for efficacy.
Adoption rates and culture. Cultural differences strongly correlate to new product and technology diffusion and adoption rates (Kumar & Krishnan, 2002; Soares, Farhangmehr, & Shoham, 2006; Steenkamp et al., 1999; Tellis, Yin, & Bell, 2009; Yaveroglu & Donthu, 2002; Yeniyurt & Townsend, 2003). A large body of literature is available on cultures’ impact on technology and product diffusion and adoption rates. Countries such as China that rank high on risk aversion (i.e., uncertainty avoidance) also rank high on technology and product imitation, while individualist societies (e.g., the U.S.) rank high on technology and product innovation (Steenkamp et al., 1999; Yaveroglu & Donthu, 2002; Yeniyurt & Townsend, 2003). One can see apparent evidence of imitation between earlier, successful U.S. websites and later Chinese websites such as Baidu (search engine similar to Google), Alibaba (e-commerce similar to Amazon and eBay), Sina Weibo (social media similar to Twitter and Facebook combined), and Tencent Video or Youku (videos similar to YouTube). This is also found in imitated product introductions such as the Chinese Xiami and Huawei smartphones after the global success of the iPhone.

Given China’s tendency toward risk aversion, one might assume that B2B purchasing off-line through local and other marketing channels would prevail over online purchases. This is one compelling reason for this dissertation research – identifying current Chinese B2B customer channel attitudes and preferences between traditional and Internet marketing channels.

Cultural risk aversion might also suggest that technology diffusion rates and Internet user adoption rates would lag developed nation’s averages; however, data indicates that the Chinese netizen population embraced the Internet, reaching 338 million in 2009 or approximately 26% of the country’s population (CNNIC, 2010). A study by
iResearch (2009) indicated that online B2C shopping penetration was 88 million netizens or 27% of the aggregate online population. Studies that are more recent project much higher online e-commerce penetration. As of 2013, 302 million unique netizens completed e-commerce transactions for a 49% penetration use rate, and that penetration is projected to rise in the next three to five years (CNNIC, 2013; iResearch, 2013).

*Adoption rates and tangible factors.* Factual examples of China’s rapid Internet and e-commerce adoption are plentiful. As of this review, the Chinese company Alibaba is the largest e-commerce site in the world (primarily B2B transactions but also includes TaoBao for B2C), and there are a number of other established Chinese B2B e-commerce sites. Table 4 provides a list of the top grossing B2B and B2C sites as of 2011 (China Internet Watch, 2011). Although many studies and case studies have been completed about Alibaba, little is found in academic, professional, or popular literature regarding e-commerce platform strategies for foreign companies marketing in China. That is, what online software and technologies to use in China for customer facing e-commerce. This is a complex discussion beyond the scope of this review; however, it is a critical decision for U.S. companies in selecting existing B2B e-commerce platforms in China or building one for China B2B customers. Many companies have elected to review and select existing Chinese e-commerce sites.

<table>
<thead>
<tr>
<th>B2B Top 10 Website</th>
<th>B2C Top 7 Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alibaba</td>
<td>Tmall</td>
</tr>
<tr>
<td>HC360</td>
<td>JD</td>
</tr>
<tr>
<td>JWQ</td>
<td>VIP</td>
</tr>
<tr>
<td>DHGate</td>
<td>Yixun</td>
</tr>
<tr>
<td>ebrun</td>
<td>Amazon</td>
</tr>
<tr>
<td>Makepolo</td>
<td>Suning</td>
</tr>
<tr>
<td>Hisuppliers</td>
<td>Dangdang</td>
</tr>
<tr>
<td>Globalsources</td>
<td>yhd</td>
</tr>
<tr>
<td>Made-in China B2B</td>
<td>Gome</td>
</tr>
<tr>
<td></td>
<td>Vanci</td>
</tr>
</tbody>
</table>

Note: Adapted from China Internet Watch, 2015.

From 2000 through 2014, the number of China’s Internet users grew from 22.5 million and 9% of the population to 650 million and 48%, respectively (CNNIC, 2015). That is more than twice the population of the United States. These users access the Internet through many different platforms – in 2013, 27% was through computers and laptops with 73% via mobile devices such as portable pads, cell phones, and smartphones (Chan, 2014; iResearch, 2015). This creates new challenges for marketers in China; for example, how does marketing successfully repurpose web content, digital marketing, and e-commerce for mobile platforms?
In 2014, Chinese B2B e-commerce represented 37% of all transaction but 70% of all China e-commerce gross merchandise value or “GMV” (iResearch, 2015). Figure 6 demonstrates the dramatic double-digit B2B e-commerce growth averaging 25% per year since 2010. Chinese B2B e-commerce reached an estimated 23.4 billion Yuan in 2014 ($3.8 billion USD) and is expected to grow 24% in 2015 to 29b Yuan ($4.6b USD).

Figure 6. China e-commerce gross merchandise volume (GMV) from 2011 to 2014. Note: Adapted from iResearch, 2015. 2014 Internet economy report.

Alibaba is a Chinese e-commerce site and the largest e-commerce platform in the world with a gross merchandise value (GMV) in combined B2C and B2B transactions greater than Amazon and Ebay combined (Singh, 2014). Alibaba still represented only ¥6.4 billion or 34% of the total B2B e-commerce transactions for gross merchandise value (GMV). There are several other industry specific and e-commerce platforms contributing the balance (Figure 7). In 2014, the top seven platforms contributed 47% of GMV represented by:
- Mysteel (20% of GMV for steel),
- Globalsources (5% for a dozen multi-channels such as electronics, textiles, precision works, etc.),
- HC360 (4% primarily auto parts, hardware tools, machinery, building and decorative materials, and consumer electronics),
- Dhgate (3% connecting smaller Chinese manufacturers and overseas customers), and
- Made-in-China, Gobalmarket, and Toocle each represented 1% (iResearch, 2015).

Each industry e-commerce platform has industry specific search capabilities for customers and suppliers. U.S. B2B marketing can use these platforms for industry specific marketing as appropriate, then target these customers and optimize the company’s websites and Internet strategies to appear high in the search engines.

It is apparent that B2B e-commerce is now a strong component of B2B purchase transactions. iResearch (2009) reports that 37% of online e-commerce transactions are B2B transactions. They also suggest that B2C trends reflect B2B activity as well. Both B2C and B2B e-commerce have transaction trust requirements, social media influences, and personal perceived transaction risks. Many authors conclude that Chinese netizen B2C trends are important to online B2B e-commerce for several other reasons (Cina & Chen, 1999; Chong, Doyle, J. & Balegno, 2012; Eid, Trueman & Abdel, 2002; Harrison & Hedley, n.d.; Shafaghi & Tan, 2011). First, online customers between the ages of 20 to 40 with advanced education will continue to move into responsible company roles influencing or directing B2B business procurement, utilizing the Internet and B2B e-commerce more frequently. Secondly, web-based content and information is readily
accessible, lower in cost to the supplier, and has a higher propensity to provide a company a positive or negative image as a buying decision influence. Although Internet access in China is governmentally restricted, Chinese B2B customers can still access a broad array of product information and buyer opinions through Internet websites, text, photos, audio, community boards, and video about companies, company products, and services. The majority of today’s netizens trust Internet sources for product references, and across the Chinese population, traditional TV and print media are generally less trusted advertising channels in China (Pollay, Tse & Wang, 1990).

Internet information and e-commerce is not without its problems, however. In today’s accelerating pace of communication and commerce, information is quickly perishable (Alpern, 2010). A “snapshot” taken within even the past few days may not suffice for management or marketers to make the tactical, actionable decisions required to support company strategies and customer desires. With the exception of telemarketing and in-person sales calls, most traditional marketing methods suffer from even greater lag times from initial receipt of actionable information. With the serious lag times of information from traditional marketing channels, the extensive adoption of the Internet throughout China in both B2C and B2B markets and improved web analytical tools, professionals and academics now have the historical data and resources to examine marketing’s channel efficacies and postulate its future prospects (Eid, Trueman, & Abdel, 2002; Homburg, Workman Jr. & Jensen, 2000; Sarner & Fouts, 2013; Schulze, 2012; Shaw & Jones, 2005; Silverstein, 2013; Vargo & Lusch, 2011; Wang, Mao & Archer, 2012).

It is critically important to recognize that Internet penetration and purchasing varies dramatically, however, by region and access platforms. Overall, Internet
penetration in China was 26% in 2009 and 48% by 2014, but these averages are misleading. Table 5 ranks Internet penetration during these periods by region and B2C online purchasing activity. Tier 1 and Tier 2 cities represent over 70% penetration rates while Tier 1 cities represent the greatest online purchasing rates (CNNIC, 2013; Global Times, 2013; Incitez China, 2012; iResearch, 2009; Shenzen Government Online, 2012).

Table 5. China Internet purchasing rates ranked by region.

<table>
<thead>
<tr>
<th>Region</th>
<th>Type</th>
<th>Population (millions *)</th>
<th>Source</th>
<th>Number of Netizens (millions *)</th>
<th>Source</th>
<th>Internet Penetration (%)</th>
<th>Online B2C Shopping Penetration Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All of China</td>
<td></td>
<td>1,367</td>
<td>1</td>
<td>649</td>
<td>1</td>
<td>47%</td>
<td>27%</td>
</tr>
<tr>
<td>Shenzhen in Guangdong</td>
<td>Tier 2 City</td>
<td>11</td>
<td>2</td>
<td>8</td>
<td>3</td>
<td>77%</td>
<td>34%</td>
</tr>
<tr>
<td>Guangzhou in Guangdong</td>
<td>Tier 2 City</td>
<td>14</td>
<td>1</td>
<td>10</td>
<td>3</td>
<td>73%</td>
<td>35%</td>
</tr>
<tr>
<td>Beijing</td>
<td>Tier 1 City</td>
<td>21</td>
<td>1</td>
<td>10</td>
<td>3</td>
<td>70%</td>
<td>65%</td>
</tr>
<tr>
<td>Shanghai</td>
<td>Tier 1 City</td>
<td>24</td>
<td>1</td>
<td>11</td>
<td>3</td>
<td>66%</td>
<td>67%</td>
</tr>
<tr>
<td>Guangdong</td>
<td>Province</td>
<td>106</td>
<td>1</td>
<td>46</td>
<td>3</td>
<td>43%</td>
<td>20%</td>
</tr>
<tr>
<td>Zhejiang</td>
<td>Province</td>
<td>55</td>
<td>1</td>
<td>21</td>
<td>3</td>
<td>38%</td>
<td>21%</td>
</tr>
<tr>
<td>Fujian</td>
<td>Province</td>
<td>38</td>
<td>1</td>
<td>14</td>
<td>3</td>
<td>37%</td>
<td>22%</td>
</tr>
<tr>
<td>Jiangsu</td>
<td>Province</td>
<td>79</td>
<td>1</td>
<td>21</td>
<td>3</td>
<td>27%</td>
<td>34%</td>
</tr>
<tr>
<td>Shandong</td>
<td>Province</td>
<td>97</td>
<td>1</td>
<td>20</td>
<td>3</td>
<td>21%</td>
<td>21%</td>
</tr>
<tr>
<td>Hubei</td>
<td>Province</td>
<td>58</td>
<td>1</td>
<td>11</td>
<td>3</td>
<td>19%</td>
<td>30%</td>
</tr>
<tr>
<td>Hunan</td>
<td>Province</td>
<td>67</td>
<td>1</td>
<td>10</td>
<td>3</td>
<td>15%</td>
<td>24%</td>
</tr>
<tr>
<td>Sichuan</td>
<td>Province</td>
<td>81</td>
<td>1</td>
<td>11</td>
<td>3</td>
<td>14%</td>
<td>29%</td>
</tr>
</tbody>
</table>


This demonstrates the importance of U.S. companies’ market entry and expansion choices, as well as marketing channel selections for new customer audiences.

**E-commerce attitudes and trust: China.** Many authors suggest that China’s demographic trends and netizen characteristics are important harbingers of future online B2B e-commerce trends (Cina & Chen, 1999; Chong, Doyle, J. & Balegno, S. 2012; Eid, Trueman & Abdel, 2002; Harrison & Hedley, n.d.; Shafaghi & Tan, 2011). First, online customers between the ages of 20 to 40 with advanced education will continue to move
into responsible roles as employees, managers, and business owners. They will influence or direct B2B business procurement and interact with B2B e-commerce more frequently.

Secondly, low cost, customer customized web-based content and information has a higher propensity to provide a company a positive or negative image and influence purchase decisions over media advertising. iResearch (2009) argues that using online e-commerce B2C trends as a proxy for current or future B2B activity is reasonable since B2B transactions represent 37% of all online e-commerce purchase transactions, and e-commerce for both B2C and B2B e-commerce transactions have similar user experience and trust needs.

Trends in technology and the adoption rates in Chinese markets already suggest that the younger generation requires information efficiencies and may become easier to influence through new communication channels and media. This group is also more highly educated than earlier generations, and demonstrates a positive correlation to adoption of the Internet, new products, and new services (Pew, 2010; Rich, 2010; Rogers, 2003). They tend to also be less risk adverse than their older counterparts. As a result, attitudes of the younger buyer population may be shifting toward greater acceptance of Internet marketing and communication channels. If true, a positive correlation should be also exist between B2B customer purchasing agent respondents of younger ages and their positive attitudes toward Internet marketing channels.

Online e-commerce trust has also changed dramatically. Word-of-mouth (WOM) advertising, that is trusted purchase references from friends and family, has traditionally been a powerful purchasing influence - especially in China. Today, the WOM dynamic is reflected in Chinese online communities and social media (Silverstein, 2013). There are a number of Chinese, government approved social media sites such as Dianping, Renren,
Sina Weibo, QQ, 51, or Wechat, and social media sites are used by 91% of China’s netizens (CNNIC 2014). These netizens use social media disproportionately more than the rest of the world (Chiu, Ip & Silverman, 2012). Many Chinese customers and technical staff now evaluate products and services over the Internet and through these and other social online communities, blogs, and forums (Sanmez, 2006).

Reflecting the Chinese penchant for social media use, Alibaba includes an online forum to facilitate community discussions and transactions (Zhao, Wang & Huang, 2008). On the whole, these Internet demographics hold important implications for B2B marketers in China; therefore, age, gender, education, and frequency of Internet use are all a focus of this research.

Not only has trust in online transactions improved, but trust in the associated online credit facilities has also increased. E-commerce platforms such as Alibaba now include secure payment facilities and the ability to contact the supplier directly or chat from the Alibaba website. Figure 7 shows the Alibaba online transaction work flow between a B2B buyer and seller including the negotiation “chat room” and online payment fulfillment platforms. Most B2B negotiations, however, continue to be outside the Alibaba system by phone or email at present. To create the trust required for online payment security, Alibaba offers several alternatives including:

- Alibaba’s Secure Payment – buyer’s monies are escrowed by Alibaba and released to the supplier after receipt and confirmed acceptance by buyer;
- Letter of Credit facility – a traditional bank guaranteed transaction;
- Bank or telegraphic transfers as either
- 100% payment transfer after confirmed receipt of goods,
• 30% upfront transfer and balance after confirmed receipt of goods, or
• 100% upfront payment prior to supplier production and shipping.
• Western Union cash transfers – which is not recommended for B2B transactions but available for cash transactions between known parties (Alibaba, 2015).

Figure 7. Alibaba B2B e-commerce transaction processing flow.
Table 6 ranks different payment and collection systems now available to Chinese businesses and netizens across all e-commerce platforms by frequency of use.

Table 6. Online credit facility ranking for Chinese e-commerce payments and collections.

<table>
<thead>
<tr>
<th>Transaction Type</th>
<th>Percent of E-Commerce Transaction Payment Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online 3rd Party Payment Platform</td>
<td>50.4%</td>
</tr>
<tr>
<td>Online Bank</td>
<td>21.4%</td>
</tr>
<tr>
<td>Cash on Delivery</td>
<td>16.8%</td>
</tr>
<tr>
<td>Bank Transfer</td>
<td>3.8%</td>
</tr>
<tr>
<td>Post Purchase Transfer</td>
<td>3.1%</td>
</tr>
<tr>
<td>Credit or Debit Card on Delivery</td>
<td>2.3%</td>
</tr>
<tr>
<td>Cash &amp; Carry</td>
<td>0.9%</td>
</tr>
<tr>
<td>Mobile Payment Facility</td>
<td>0.7%</td>
</tr>
<tr>
<td>Telephone Payment Facility</td>
<td>0.4%</td>
</tr>
<tr>
<td>Other</td>
<td>0.2%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>100.0%</strong></td>
</tr>
</tbody>
</table>

Note: Adapted from iResearch, 2009.

Third party platforms are those owned by the e-commerce platform such as Alibaba’s “Secure Pay” or by other payment processing providers similar to PayPal in the U.S., however, Chinese third party platforms are primarily Chinese banks. Although some credit card and debit card use is now available in China through companies such as the UnionPay (sponsored by People’s Bank of China), these do not yet dominate B2B transactions in China. Such payments may become a more important option in China’s future; online and card payment options are growing, albeit with strong government regulation.

Kaiser Kuo, director of international communications at the Chinese leading Internet search engine company, Baidu, commented in 2014, "[the Internet has] been
utterly transformational. The advent of the Internet has been a great leveler in terms of people’s access to knowledge, to education materials, [and] to goods and services” (FlorCruz, & Seu, 2014, p. 1). This analysis has shown that Internet marketing offers the best opportunity for direct, pervasive customer interactions at a relatively low cost (Chong et al., 2011). Marketers must recognize the power of the Internet in China with its unique characteristics and the socio-political-cultural differences.

Challenges for U.S. Companies Marketing in China

When U.S. companies enter the Chinese markets, several dynamics must be considered which may not immediately appear cultural such as adapting to national and local memes, ideography, and communication styles. Although company brand, reputation, and product trust are important key factors worldwide, these are even more critical in China. B2B marketers are affected by growing B2C markets, as the B2B companies provide the product components in the supply chain that feeds into B2C products.

Infamous China-wide problems reflect these factors. For example, in 2008 many babies died due to additions of the chemical melamine to baby formula for products to pass protein testing requirements. This B2B supplier fraud by the Chinese company Sanlu and subsequent exposure of the cover-up led to general consumer distrust of all Chinese manufactured baby formula (Woo, Tao & Lu, 2009). Foreign brands were perceived safe. Sales of foreign brands surged and continue to be reflected in baby formula sales even today.

For many products, demographic class definitions and economics alone do not provide clear market segmentation necessary to develop marketing and product strategies
for China. The local cost of living, cultural and socio-political values, and labor costs vary dramatically across China. Even emerging markets for the growing Chinese middle class cannot be clearly defined. Developing B2B marketing plans to the B2C companies servicing these markets is problematic. Regional and demographic disparities require a clear, detailed understanding.

Demographics for discretionary spending are one example. These are often used to create marketing and product strategies, but product preferences and social norms are key. While China’s middle class incomes are well below those of the U.S., China’s middle and upper classes have become the world’s leading luxury product market in gross merchandise volume (GMV). The luxury market crosses B2B supply chains in many industries such as fashion, personal products, housing appliances, autos, travel, and entertainment.

As a common example outside the luxury markets, discretionary spending attitudes do not translate from U.S. consumption patterns to Chinese consumption patterns. A middle class family in China and the U.S. can own at least one car. Given the low cost of labor in China, however, it is common for the Chinese family with a car to have a chauffeur - a rarity for the American middle class family (Wang, 2010). In contrast, given the U.S. middle class’s access to debt capital and lower housing prices per square foot, Americans’ home living space is typically several times larger than their Chinese counterparts’ living space and will be filled with many more living amenities. These issues have important ramifications for U.S. companies marketing in China, and products and product marketing messages must be tailored to reflect these differences (Wang, 2010). These preferences and spending patterns are reflected in B2C markets and their B2B suppliers.
This suggests that companies must customize marketing and product strategies uniquely for the Chinese markets. One way suggested has been through mass customization. This concept was defined by Pine in 1993 as a strategy creating value through customer unique products at a production cost and price similar to those of mass produced products. Additionally, this is accomplished either at the service delivery stage or at product fabrication and assembly prior to delivery.

Commodity products, natural resource products, and services to the government or regulated industries, however, may not be appropriate for mass product customization. This does not mean that these markets do not require customized marketing, marketing communications, and customer interactions. There is a well-documented argument that geopolitical differences exist not only between countries, but also within countries such as between Hong Kong and China or across China’s provinces; these differences require regionally customized product messages, communication, and customer service (Buckley & Horn, 2009; da Silveira, Borenstein & Fogliatto, 2001; Fogliatto, da Silveira & Borenstein, 2012; Johnson et al., 2006; Lee, 2007; Liu & Roos, 2006; Peng, 2001; Solberg, 2000).

As noted, to successfully market B2C or B2B in China, U.S. and other foreign companies must understand the critical success factors. Many of these are unique or at least, amplified, in China (Chong, Shafaghi & Tan, 2011). In this literature review, four uniquely Chinese issues emerged:

- One size does not fit all;
- The Internet is changing everything in China;
- Cultural differences do matter; and
- The Chinese government remains a profound consideration.
The Internet now plays a major role in U.S. companies reaching Chinese customers whether the U.S. company has operations in China or export to China. These four factors are critical in both B2C and B2B markets and are discussed in this section.

One Size Does Not Fit All.

China is part of the global market, but China is not one uniform market. Western products and marketing do not necessarily transfer wholesale into either China’s B2C or B2B markets (Li & Shoostari, 2007; Li, Li, & Zhao, 2009). China has many distinct regional differences. There are dramatic differences between north and south, east and west. There are regional differences in national social standing and the degree of international exposure. There are significant differences in urban needs, expectations, and values from those of rural areas.

Population shifts from rural to urban areas significantly affects the B2C markets, and the effects are also seen in B2B markets. The mass migration of workers from the countryside to the city leaves China a country that now looks more like the United States’ urbanization growth after the beginning of the industrial revolution in the early 20th century.

Today, China’s urban citizens represent 47% (622 million) of the population compared to an 82% urban population in America (Kwan, 2010). China’s urban population is projected to reach 67% by 2030 (700 million). This urbanization has occurred in less than 25 years. Rapid urbanization places unique stresses and needs on national and local governments, affecting infrastructure, energy supply and uses, motorization, land use, water, agriculture food and water distribution, shelter (e.g., housing), and the environment (World Bank, 2008). As a result, business organizations
dramatically change as well. Products and know-how must support and satisfy the needs and appetite of this urban growth. The Chinese concept of categorizing cities into five tiered categories and the implications are discussed later in this section.

The unique stresses and needs to support rapid urban growth deserve analysis for both B2C and B2B company marketing strategies. China has invested heavily in its transportation and communication infrastructure. The government is now working on improving many other sectors such as environmental quality, agriculture and food safety, and increased clean water supply. China’s efforts in these areas are especially evident in large urban Tier 1 and Tier 2 cities. These efforts create important market entry and growth opportunities for foreign B2B products, technology, investments, and know-how.

To put the number and size of Chinese cities in perspective, the U.S. has 10 cities with a population of one million or more (US Census, 2015), while China has 160 cities with over one million (ChinaToday, 2015) and 40 cities with over two million people (Nations, 2011). Table 7 provides a summary overview of the Chinese concept of city tiers including population and economic measures. Some Chinese cities are large and progressive with sophisticated urban populations and businesses such as Beijing or Shanghai (i.e., Tier 1 cities) and some smaller Tier 2 cities such as Suzhou (population 1.35 million), Nanjing (5.83 million), Hangzhou (2.5 million), Guangzhou (14 million), or Shenzhen (7 million). These urban areas have extensive exposure to Western products and marketing.

While still quite large by U.S. city standards, Tier 2 and Tier 3 cities such as the western cities of Chongqing (32 million), Chengdu (14.1 million), or Kunming (6.4 million) do not yet have the history and experience of trade with the West. In cities smaller than Tier 3 and in rural communities, Chinese businesses may have neither
experience with Western companies nor the funds to purchase Western products. The
values, expectations, and experience of these varied urban areas are important
considerations for marketers entering or expanding in Chinese markets.

Table 7. Overview of Chinese city tiers 1 – 5.

<table>
<thead>
<tr>
<th>Tier</th>
<th>Representative Cities</th>
<th>Minimum Population Size (millions)</th>
<th>Average Monthly Salary Per Capita ($)</th>
<th>Households (millions)</th>
<th>Total Personal Income Value ($ trillion)</th>
<th>Administrative Divisions</th>
<th>Number of Cities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tier 1</td>
<td>Beijing, Guangzhou, Shanghai, Shenzhen (Chengdu, Tianjin, Chongqing)</td>
<td>na</td>
<td>3,000 - 4,200</td>
<td>16</td>
<td>1</td>
<td>na</td>
<td>4</td>
</tr>
<tr>
<td>Tier 2</td>
<td>Chongqing, Chengdu, Dalian, Hangzhou, Nanning, Qingdao, Tianjin, Suzhou, Wuhan, Xiamen, Xi'an</td>
<td>5</td>
<td>2,000 - 4,000</td>
<td>38</td>
<td>2</td>
<td>Developed provincial capitals and special administrative cities</td>
<td>32</td>
</tr>
<tr>
<td>Tier 3</td>
<td>Dongguan, Guilin, Huizhou, Quanzhou, Shaoxing</td>
<td>1</td>
<td>2,000 - 4,000</td>
<td>75</td>
<td>3</td>
<td>Developed provincial capitals and special administrative cities</td>
<td>27</td>
</tr>
<tr>
<td>Tier 4</td>
<td>Anshan, Baotou, Chaozhou, Daqing, Datong</td>
<td>na</td>
<td>-</td>
<td>86</td>
<td>3</td>
<td>Prefecture or county level city capitals and others</td>
<td>-</td>
</tr>
<tr>
<td>Tier 5</td>
<td>Ulanqiang, Nanning, Shenken village, Yan' an, Zhaoqing</td>
<td>na</td>
<td>-</td>
<td>169</td>
<td>4</td>
<td>Town government, townships and others</td>
<td>-</td>
</tr>
</tbody>
</table>

1-Data: Households, and Income are 2011.
2-Number of cities varies based on source. This data is from Nexus Pacific (2013).

Note: Adapted from Nexus-Pacific, 2013.

Taking a different perspective of Chinese regions, a 2009 article in *The Atlantic* magazine suggests there are “nine nations of China” (Chovanec, 2009, p.1). Marcus Lee is an experienced investment banker in China. His 2007 book, *Outsmart China*, highlights regional and industry differences for foreign companies looking to either enter or expand in Chinese B2C and B2B markets. His book summarizes the ten most promising regions for foreign companies to enter China, each region’s strengths and industry focus, and how foreign companies can uniquely market in each region across twenty-two industries. Table 8 provides an overview of these regional opportunities and a
list of the related industries. The need for customized marketing approaches, therefore, applies across industries not only for China as a country within the global markets but also across its many regions.

This dissertation focuses on just one part of these overarching regional issues, specifically, the attitude of Chinese B2B customers across industries and their receptivity to selected traditional and Internet marketing channels in eastern Chinese urban regions. Even when considering the progressiveness and proximity of Shanghai, Suzhou, and Nanjing, however, products selling well in Shanghai do not necessarily translate to Suzhou or Nanjing, only 45 minutes away by high speed rail and two hours by car. One must recognize that the ability and funds of a B2B customer to spend do not necessarily translate into the customer’s receptivity to marketing approaches or readiness to spend (Fernandez & Underwood, 2009).
Table 8. China’s best market opportunities for foreign firms by location and industry categories.

<table>
<thead>
<tr>
<th>Key Entry and Expansion Locations</th>
<th>Category *</th>
<th>Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hangzhou</td>
<td>Tier II city</td>
<td>Middle east coast near Shanghai</td>
</tr>
<tr>
<td>Wuxi</td>
<td>Tier II city</td>
<td>Middle east coast near Shanghai</td>
</tr>
<tr>
<td>Shanghai</td>
<td>Tier I city</td>
<td>Middle east coast</td>
</tr>
<tr>
<td>Dalian</td>
<td>Province</td>
<td>North East coast</td>
</tr>
<tr>
<td>Beijing</td>
<td>Tier II city</td>
<td>Central</td>
</tr>
<tr>
<td>Suzhou</td>
<td>Tier II city</td>
<td>Middle east coast near Shanghai</td>
</tr>
<tr>
<td>Ningbo</td>
<td>Tier II city</td>
<td>Middle east coast near Shanghai</td>
</tr>
<tr>
<td>Nanjing</td>
<td>Tier II city</td>
<td>Middle east coast near Shanghai</td>
</tr>
<tr>
<td>Guangzhou</td>
<td>Tier II city</td>
<td>Southern China near Hong Kong</td>
</tr>
<tr>
<td>Shenzhen</td>
<td>Tier II city</td>
<td>Southern China near Hong Kong</td>
</tr>
</tbody>
</table>

Industry Categories


Note: See Table 7 for China Tier city definitions.

The Internet Changes Everything in China.

Beginning without the ubiquitous TV transmissions or wired phone and communication systems found in developed Western nations, in 2015 China celebrated twenty years of Internet use. By the end of that year, 600 million Chinese used the Internet for personal and business purposes, and Alibaba had become the world’s largest B2B e-commerce website (CNNIC, 2014; iResearch, 2015). Combined with China’s rapid economic and e-commerce growth, consumer and business customer attitudes are rapidly changing, as well. While traditional marketing communications such as print media, radio, television, direct mail, telephone campaigns, and sales “cold calls” remain relevant, digital Internet marketing has become a critical strategic element of the
marketing department’s tool chest (Schulze, 2012). Influenced by Chinese cultural and regional biases, marketing messages and interactive online content in Chinese markets resonate differently with customers than customers in Western markets. Companies’ marketing channels and marketing organizations must be able to adapt to these differences and measure the results (Ambler & Xiucun, 2003; Eid, Trueman & Abdel, 2002; Maklan & Klaus, 2011; McKinney, Yoon & Zahedi, 2002).

The Internet allows for international, and borderless communication and for cross-border e-commerce platforms. Both large and small B2B companies can identify and interact with remote target customers better and at lower costs than the traditional broadcast approaches of TV and print media advertising. With Internet marketing tools, companies can dynamically tailor unique customer interactions more than through traditional marketing channels. Internet marketing includes:

- company websites and web landing pages;
- e-commerce exchange sites for business-to-business exploration, discussion, and transactions;
- search engine optimization (SEO) to make it easier for potential customers to find the company;
- customization for differing Internet access platforms (i.e., desk top computers versus mobile platforms);
- direct marketing email campaigns and communications;
- click-through advertisements inserted on websites not controlled by the company;
- virtual seminars and company events; and
• social media such as blogs, discussion boards, remote but connected social and affiliate groups, and word-of-mouth forums where individuals and companies post opinions, recommendations, and reviews or discuss current stakeholder issues.

While some tools such as search engine results and email campaigns provide direct, measurable marketing results, other tools such as social media are more difficult to measure for customer purchasing influence. This creates a complex, rapidly evolving, and multifaceted area that has garnered many studies for Western markets (Aberdeen, 2012; Davis, Bagozzi, & Warshaw, 1989; Economist, 2013; Gartner, 2013; Sarner & Fouts, 2013; Silverstein, 2013; Sonmez, 2006; Schulze, 2012).

Marketing departments must weigh the efficacy of each marketing channel and make resource investments accordingly. Marketers must choose those traditional and Internet channels most appropriate in reaching potential new customers for their industry sector, Internet access platforms (e.g., PCs and mobile platforms), and local cultural context. These must then be implemented within the constraints of the company’s access to skilled resources and the customers’ technology adoption rates. In China, marketers must also know the Internet tools available technologies and restrictions within China which differ from those available in other countries (Alon & Jaffe, 2012; Jen-Her & Shu-Ching, 2005; Tsang-Sing, Gang & Zhou, 2009).

When using Internet marketing tools in China, marketers must consider China based information and the company’s Chinese web presence. With different web tools, social media, user product reviews, competitors’ web presence, and government oversight, this web presence extends well beyond the company website and the company’s direct control. As one example, search engine optimization (SEO) is a set of Internet techniques to help a company’s products appear near the top of an Internet search
list. Western empirical studies have shown that click-through response rates to a company’s relevant website and information dramatically improve in Google when a company is within the first four search pages, and even more so when near the top of the first page (Ghose & Yang, 2009; Hariri, 2011). Chinese search engines are different. Google search results are often blocked in China. The basic click-through assumptions still apply, although in Chinese search engines there is a ranking bias toward national Chinese companies and Mandarin language based searches (Russell & Russell, 2009).

In the Western world, Google is a primary search engine; however, Google searches tend to drive users to English only websites. Typing “Ogilvy China” in a Google search for the B2B Ogilvy & Mather international marketing and public relations agency, Google will direct the search to Ogilvy’s English website. Typing the same search into Google.hk (Hong Kong), delivers the Ogilvy China website, but it’s also all in English including the company’s English SlideShare and Twitter sites – both Internet tools which are unavailable within China.

Google searches are often restricted or blocked entirely in China. Baidu is a similar Chinese search engine and now the fifth most visited website in the world. It is China’s largest Internet search engine representing 95% of all Internet searches (Alexa, n.d.). Search results are different in Baidu. When entering the same “Ogilvy China” search into Baidu, the company’s Mandarin China website appears with its Chinese blogging and video sites: The English website is nowhere to be found.

U.S. company marketing organizations in both B2C and B2B markets must learn to adapt and remain diligent. Marketers are challenged to understand the Chinese needs and norms, the available and relevant technologies, and the Chinese marketing nuances.
Chinese Cultural Differences Do Matter.  

For companies in any foreign market, operations, communications, and marketing messages must be localized and must be implemented within the constraints of the available technologies and customers’ technology adoption rates (Buckley & Horn, 2009; Johnson, Lenartowicz & Apud, 2006; Kaufman & Roesch, 2012; Li, Karande & Zhou, 2009; Solberg, 2000).

While this review has highlighted the evolving culture in China, personal relationships are still important. This quote summarizes one Chinese cultural perspective of Western business people:

[Westerners] don’t understand Chinese culture. Their technology and quality check system is mature and comprehensive, and they are professional in their field and everything they do. They are polite, but that is not enough. We’d like to invite them to join our supper after finishing working, but they can’t understand and will go back to the hotel directly. (as cited by Harrison & Hedley, n.d., p. 13)

To paraphrase a friend and a business president, “there is no business-to-business in China, there is only people-to-people.” Perhaps that is true; however, perhaps it is also changing.

Cultural influences in marketing messages. Li and Shoostari (2007) provide literature research exploring the multi-ethnic Chinese culture and the challenges of foreign companies to communicate accurately, effectively, and without offense. At issue is the Western use and general lack of understanding of Mandarin written language and cultural symbols.
These symbols are highly relevant in the minds of the Chinese people and they share attitudes towards the use of these symbols (Li & Shoostari, 2007). The main stream of Li and Shoostari’s argument is from a culturally specific socio-linguistics perspective. Marketing messages using Chinese characters must pay special attention to the reception of their uniquely Chinese ideographic codes. Marlboro, for example, has been marketed in China for decades in its three-character-Chinese name, *Wan bao lu*. Translated, it means “a road that leads to ten thousand treasures”. Its favorable Chinese imagery is so profound by the ideographic nature of the Chinese language that the logical link between smoking and its health hazards is thus buried (Li & Shoostari, 2007).

Improper use of cultural symbols by “outsiders” invites serious questioning of the user’s intentions, motivations, and goals. This applies to not only foreigners, but even Chinese from other cities or provinces. This is particularly true if the use is projected as inferior to the outsiders’ cultural symbols. Local Chinese customers are less forgiving than Westerners customers for any misuse of their cultural symbols by outsiders, even if the foreigner has good intentions in an attempt to be sensitive to the local audience (Li & Shoostari, 2007).

Two examples demonstrate the potentially negative result of employing controversial advertising as a marketing strategy to break through traditional advertising clutter. Li and Shoostari (2007) explore the consumer outcry and cultural backlash created by Toyota and Nike advertisements in 2003 and 2004 when “misusing” Chinese cultural icons considered inappropriate in the cultural mind of the Chinese. Toyota used two Chinese stone lions saluting the Prado four-wheel drive as it passes with the marketing message, ‘Prado – You Can’t Help Respecting It’. In another ad, a Land Cruiser tows a stalled Chinese-made Dongfeng military lorry in a mountain wilderness.
Nike’s television advertisement showed NBA star LeBron James battling and defeating a cartoon kung fu master with an audience of two women in traditional Chinese attire and a pair of dragons (considered a sacred symbol in traditional Chinese culture). These advertisements were apparently intended to break through the clutter and noise of traditional advertising and attract attention. They did. Chinese authorities said it insulted national dignity.

These two campaigns were both banned by the Chinese government in response to consumer outrage. The ads were the first non-Chinese commercials to be banned by Beijing since China’s entry into the World Trade Organization (WTO) in 2001. Prior to these ads, both Toyota and Nike had been praised for their ads reflecting perceived respect for the Chinese cultural heritage and understanding why the Chinese are proud.

Incongruent cultural views of target customers and a company’s marketing messages, a lack of historical sensitivity, and different levels of social communication between the companies and their audience produced the offensive result (Li & Shoostari, 2007). In all, between December 2003 and May 2005, four ads were pulled by Chinese regulatory institutions in response to tens of thousands of protest messages on major Chinese social media websites.

Cases such as the Chinese food product fraud and foreign company advertising incidents have made Chinese citizens wary of both advertising and product quality claims. Neither traditional nor Internet marketing are immune to cultural context. Marketing messages and content must communicate and respect the recipient’s values (Chong et al., 2012; Leek & Christodoulides, 2011; Lu, 2007; Tsang-Sing, Gang & Zhou, 2009).

A collectivist social culture. In general, China is a collectivist culture, and its people tend to be risk adverse. Unlike the U.S., Chinese look more to their social group
and an entity as a whole for context rather than looking to the individual. Western cultures tend to be individualistic (Hofstede, 2001; Hofstede & Bond, 1988; Zhou & Belk, 2004). Hofstede’s studies, co-authors, and subsequent research help demonstrate the difference between Western and Eastern minds. The three dimensions common to both West and East are Power Distance, Individualism or Collectivism, and Masculinity or Femininity. Hofstede notes that besides the three dimensions common to both East and West, “we found one uniquely Western dimension: Uncertainty Avoidance.” (Hofstede & Bond, 1988, p. 20). This Western dimension deals with society’s search for absolute Truth; uncertainty-accepting cultures such as China take a more relativist stance.

As a result, existing Western business marketing theories and communication messages may not apply in China. Eastern advertisers (e.g., China, Korea, and Japan) typically use emotional appeals which best fit the high-context, intuitive and contemplative Eastern cultures: Western advertising’s rational appeals best fit Western low-context, analytical, and action oriented cultures.

With a growing, youthful middle class population, however, China is beginning to change. Both Eastern and Western company’s targeting a younger audience predominantly use individualistic appeals in both Internet and traditional advertising (Li, Li & Zhao, 2009; Zhang & Shavitt, 2003). This trend is important for foreign companies attempting to acquire new customers or to implement emerging technologies. Age, cultural experience, and Internet experience matter; therefore, this research categorizes attitude responses by age and Internet use factors such as comfort and frequency of use.

The role of social media. Social media is a powerful force in China. Facebook, Twitter, and YouTube don’t exist in China; China has its own, government approved
social media on Chinese platform equivalents. Sina Weibo, with 300 million Chinese users, is a micro-blogging website similar to a blend of Facebook and Twitter.

As in many places worldwide, social media can be both positive and negative powerful marketing tools. For example, the China Red Cross experienced a maelstrom of negative company publicity and a public relations nightmare when an employee posted on Sina Weibo his access to company funds and use of these funds for personal purchases. Given China’s collectivist social nature, the company was perceived at fault by Chinese netizens rather than the individual.

Customer centric marketing and China. Homburg, Workman, and Jensen (2000) argued that marketing has become customer centric in business markets, reflecting a global shift toward customer focused organizations. Customer tailored, interactive marketing, and interactive messaging are required; purchase decisions are now driven by the customer rather than the company. Subsequent research concurs. Company and product information, opinions, and e-commerce purchases are available every day, all day at the customer’s discretion (Maklan & Klaus, 2011; Vargo, 2009; Vargo & Lusch, 2011, 2008).

Customer centric marketing has become even more important in B2B marketing than in B2C marketing (Nathan & Schmidt, 2009). Frost & Sullivan (Singh, 2014) characterizes the customer centric concept in both Chinese and world B2B markets as one-to-many and many-to-many interactions. In the one-to-many models presented, companies retain control over procurement activities. Many-to-many interactions tend to be customer driven and interactive; that is, the entire supply chain is connected and participates including customers, suppliers, transportation services, and financial resources.
Nathan and Schmidt (2009) concluded that customer centric marketing is more important B2B transactions than B2C transactions. Their survey of 3,000 purchasing agents in multiple industries across 36 brands with 50 post survey structured interviews cites factors supporting this argument such as the substantial economic value and potential risks of a B2B purchase as reflected by the large GMV of B2B e-commerce transactions. B2B purchase transactions are also much more complex. B2B contains variable pricing and volumes, a need for customers to be educated about product uses and features, an ability to adapt products and delivery to specific customer requirements, and a need for post purchase services. Additionally, any purchase decision affects a group of company people not just the purchasing agents. The authors conclude that these factors significantly increase the purchasing agent’s perceived personal exposure and personal risk. These risks may include the company’s confidence in the agent, the company’s perception of the agent’s decision making quality, and the agent’s perceived effect on their personal career.

Tan, Tyler, and Manica’s study (2007) of e-commerce development in China concluded that B2B Internet adoption impediments have been employees’ access to Internet connected company computers, lack of company wide information sharing, the inability of organizations to adapt to rapid change, and employees’ perceived personal risk. The authors surmise that agent’s personal risk reflects the lack of employee trust by the company and the general cultural intolerance for failure. This dissertation’s research may also reflect these issues for Chinese B2B customers’ attitudes and receptivity when approached by a foreign U. S. company, and must be a consideration in analyzing survey results. In any event, B2B marketing is becoming more customer centric.
Marketing in China is not that dissimilar from other countries; however, this discussion demonstrates that differences do exist culturally and in marketing dynamics. Marketing in China has specific needs to be successful (Green, 2012). Marketing messages must be available in Mandarin, Internet messages must be searchable behind the Chinese Internet firewall restrictions, and “local content is king” (Green, 2012, p. 33). Customer centric marketing is an emerging trend in China, but not as prevalent yet as Western based studies may suggest (Green, 2012).

The Chinese Government is a Profound Consideration.

As noted in Chapter 1, government plays a profound role in the lives of Chinese citizens, businesses, netizens, and foreign companies operating in China. This remains true when marketing in B2C and B2B markets as well as in either Chinese government controlled industry segments or non-governmental markets. As of 2011, 72% of state owned enterprises (SOEs) in China had become either corporations or shareholder firms. As of 2015, 43% (144,700) of all industrial Chinese businesses remain government controlled. B2B marketing, therefore, includes the subset of business-to-government (B2G) marketing (Strauss, Frost & Ansary, 2009). For B2B businesses marketing to these government controlled entities – or within the tangential supply chains – political influences remain a significant marketing dynamic (Cary, 2013). The concept of “guanxi” – essentially an individual’s personal relationships that can be drawn upon for business or which may influence business decisions – is also an important factor. Business-to-government marketing (B2G) in China requires the unique ability to cultivate positive influential personal resources as well as close consideration of local, regional, and
national government goals, restrictions, and perceptions (Chong, Shafaghi & Tan, 2011; Wang & Song; 2011).

Although China’s e-commerce is rapidly growing domestically and internationally, the Chinese Internet is government monitored and controlled. It restricts netizens’ ability to express themselves openly or access certain outside information and Internet applications such as proprietary company platforms, Google, Facebook, or YouTube (Stevenson, 2007; Tan, Tyler & Manica, 2007; Zittrain & Edelman, 2003). Within government and government controlled businesses, the concept of “guanxi” – an individual’s personal relationships that can be drawn upon for business or which may influence business decisions – remains an important factor for both Chinese and foreign companies operating in China (Cary, 2013; Fishman, 2006; Kynge, 2006; Story, 2010).

As in many countries, government influence can take many forms. The government may create an un-level competitive field between domestic Chinese companies and foreign companies operating in China. This may take many forms of intervention such as specific product regulations unique only to foreign companies or to selective applications of law. China’s formal industrial policy for key domestic industries requires foreign companies to form joint ventures with Chinese companies (Kynge, 2006; Story, 2010).

Chinese industrial policies have dictated that large, foreign MNCs in key industries such as the natural resource and auto industries must partner with Chinese companies – often state owned – to do business in China. Although required for the foreign entity, the Chinese company is not similarly constrained and may form joint ventures with other companies, even direct competitors. Additionally, the government has decreed that all intellectual property brought to the joint venture is equally owned by
the venture partners, even those originally developed or owned by the foreign entity. Fishman (2006) provides a dark array of many problems MNCs have faced in China markets and the political environ.

Google and Yahoo completely withdrew from China representing the withdrawal was due to ethical customer privacy issues from government requirements to release user information and other sensitive user data (Quelch, 2010; Sucher & Baer, 2009). Apple has been financially penalized for various infractions. One included allowing inappropriate iPhone applications that steal and transfer user information, although the applications were developed by Chinese companies. The related Chinese companies were not penalized (Information Age, 2012; Salerni, 2015). Over the past seven years, when some Chinese companies’ baby formula proved fatal to infants, foreign baby food sales soared. These foreign companies then saw government applied import restrictions, brand labeling restrictions unique to foreign products, and price controls (Tsai, 2015).

Different strategies are required for MNCs and SMEs and the industry in which a company operates (Story, 2010). The China president for Ogilvy & Mather notes that the government is a key target when building a brand in China. For large MNCs marketing in sensitive sectors (e.g., automotive or natural resources) or to large domestic Chinese markets (e.g., McDonalds, KFC, Marriott, or Starbucks), this will include national ministries.

SMEs have other governmental challenges. SME managers will find it hard to build relationships with high-ranking government officials. The SME typically does not have the budget or manpower to invest in the effort to build these long term personal relationships (i.e., guanxi). Chinese officials often do not see value in cultivating a relationship with the SME foreigners. Relationships with SMEs do not enhance the
officials’ status and take time and energy. SME foreigners typically do not understand China, will be gone soon, and will be replaced by someone who may know even less (Story, 2010). Therefore, relationships for SMEs will primarily be local government bodies and officials from contacts required in the course of local business.

Summary: U.S. Companies Marketing in China

Companies attracted to any growing foreign domestic market must seriously consider the opportunities with the business, socio-political, and ethical risks in a potentially un-level competitive field. One must also recognize that this is not necessarily unique to China. Governments throughout the world— the U.S. included – create and apply various impediments to imported foreign products and foreign companies operating within their borders, as well as providing tangible and intangible subsidies to domestic companies in protected markets.

B2C China markets. In Chinese B2C markets, products may exist relatively unchanged from those in America such as Starbucks coffee or Buick automobiles, but the marketing messages are adapted to the Chinese markets and other, modified products are available. Starbucks’ Mandarin website positions the brand as a luxury product and consumer experience. Both McDonalds and KFC offer Mandarin websites with uniquely Chinese menu items along beside the Big Mac and deep fried chicken. To find success in China, companies such as Lays potato chips have added many non-Western flavors from Pepsi-and-chicken flavor or hot-and-sour-fish soup, to seafood, braised pork, and spicy hot pot.
Even globally uniform products such as automotive lubricants, may still require product, marketing messages, and operating customization. These unique marketing and product requirements are reflected in B2B markets as discussed in the following section.

**B2B China markets.** With the growth of domestic Chinese consumer markets comes growth in products, components, and services sold to Chinese by Western companies actively fulfilling B2C and B2B market needs. Additionally, B2B marketing includes the marketing subset of business-to-government (B2G) (Strauss, Frost & Ansary, 2009). Given that 43% of Chinese businesses remain state owned – many of which are the largest companies in China with extensive supply chains – the government sector plays an important role in B2B markets. B2B markets require a U.S. company to understand and adapt to differences in Chinese market expectations and cultural norms.

To put this issue in perspective, business risk for foreign companies is ranked by international and national data sources such as the World Bank, the International Monetary Fund (IMF), the World Health Organization, and Transparency International. Additionally, the World Economic Forum’s qualitative Executive Opinion Survey (the Survey) of nearly 14,000 business respondents reflects these executives’ perception of the business environment in 139 economies. The Survey and its annual report are rigorously administered and analyzed supported by various business organizations, research institutes, and the economics departments of national universities. Table 9 summarizes the perceived business problems and impediments for foreign companies within China (Bell, 2011; Schwabe, 2010). The United States and the other BRIC countries (Brazil, Russia, and India) have been added to this analysis to provide a relativistic view of how external entities’ perceive doing business in China.

Table 9. Perceived problematic factors for doing business in BRIC countries.
As can be seen, doing business as a foreign entity in any country is not without difficulties. Although China’s growing domestic B2B markets are attractive, companies must monitor changing Internet and market trends, market demographics, characteristics unique to China, potential business impediments, and government influence. U.S. marketers and their companies must develop consistent plans and contingencies.

With the growth of domestic Chinese consumer markets comes growth in the markets for products, components, and services sold to both Chinese and Western companies doing business in China and actively fulfilling B2C and B2B market needs. Given that 43% of Chinese businesses remain state owned – many of which are the largest companies in China with extensive supply chains – the government sector plays an important role in B2B markets. B2B markets require a U.S. company to understand and adapt to differences in Chinese market expectations and cultural norms.
B2B China markets and U.S. multinational corporations. For international U.S. companies who have already established B2C operations in China like Yum Brands (Pizza Hut, KFC and Taco Bell), Apple iPhone, and General Motors (Cadillac and Buick), China already constitutes a large portion of revenues and profits – 52% of Yum revenues, 12% of Apple revenues, and 20% of GM profits. For B2B companies selling service products like SAP (Enterprise Resource Planning software and Internet cloud services), Bechtel (engineering and project management), or Ernst & Young (accounting and consulting), China represents fertile ground for Western products and management skills sold to both domestic Chinese businesses and Western companies with operations in China.

B2B China markets and U.S. small enterprises. Small and medium sized U.S. enterprise (SME) companies have less than 500 employees. Some companies such as the Oregon’s Hazelnut Growers, China Sage Consultants (sales consulting to Western companies entering China markets), Chrysan Industries (automotive lubricants), or ControlRisks (e-discovery, business risk, security, and fraud inquires) have found a way to successfully operate in China and export products to the China markets.

Only 1% of U.S. SMEs currently export to any foreign country. Some of these have learned to adapt successfully to China (AmCham, 2013). Chrysan Industries is part of that 1%. Chrysan is a U.S. Midwest based SME providing automotive lubricants and specialty chemicals with manufacturing in North America and Shanghai. Like many Western companies, Chrysan initially entered the Chinese market through Tier 1 cities and outsourced China advisors. Since 2007 when Chrysan entered the Chinese automotive market, the market has grown rapidly. China based automotive original equipment manufacturers and automotive suppliers now seek to source components
domestically. In response, Chrysan established Shanghai operations in 2013. Although lubricants and chemicals may be perceived as a uniform commodity product without the need for a customized approach, the Shanghai presence allowed Chrysan to create and provide local materials, to respond to and interact with customers locally and more quickly, to improve efficiencies in product lead times, and to participate in their industry and local Chinese business community building personal relationships (i.e., “guanxi”). The company continues to expand its China B2B market.

Another SME, an East Coast U.S. company, provides research services for product manufacturing and technology development. The company worked for twelve months to complete a B2B transaction with a Chinese buyer but was failing due to communication delays and breakdowns, as well as cultural misunderstandings. After establishing a physical presence in China and working with a China based outsourced sales force, the transaction was completed. The company’s export sales to China have since grown to 20% of revenues (AmCham, 2013).

In a contrast to successful local Chinese outsourcing successes, a West Coast U.S. engineering chemical manufacturing SME company employed a Chinese company to provide sales and marketing – the outsourcing approach the company traditionally used for marketing and sales in Western markets. The company relied only on its Chinese sales partner, avoiding direct contact with the Chinese customers. Initially successful, Chinese sales began to decline, dropping 40% in one year. The company decided to directly engage the Chinese partner and Chinese business customers, retaining additional advisors to help navigate the China business market. Subsequently, the company’s China based sales tripled within two years (AmCham, 2013).
The common marketing approach in these examples is that all these companies entered China and initially operated in Tier 1 or Tier 2 cities. With outside advisors, each found a way to modify their business approach and marketing to engage the Chinese customer.

**Literature Limitations**

The academic literature has not kept pace with the rapidly evolving Internet marketing changes and challenges throughout the world. Even though China is now the world’s second largest GDP and largest e-commerce market, this remains true for cross-border B2B marketing research in organizational buying behavior. Therefore, this review has often relied on professional and popular literature which is not peer reviewed and may be of questionable academic rigor or validity. Academic studies may be available in Mandarin or other languages that do not appear in literature search databases available in the U.S. and which do not provide the author reasonable access to such reports.

**Conclusions and Research Need**

A significant gap exists in the organizational buyer behavioral marketing literature. This is even more evident for Western companies marketing in China. Few studies, if any, provide empirical marketing insights into the Chinese B2B customers’ attitudes for unsolicited marketing by Western companies. This is especially true when searching for comparisons of traditional marketing and Internet marketing approaches. Internet tools allow a company to reach across vast distances to sell and service remote customers (Parasuramon & Zinkhan, 2002), but B2B companies must be able to execute the traditional marketing and sales requirements of any business:
• identify and target Chinese customers’ purchasing agents influencing and making buying decisions,

• make initial contact, engage, and interact with these customers, and

• provide ongoing marketing, sales, and service.

After identifying the relevant customer purchasing agents, they must be approached through effective marketing channels whether traditional, online, or a combination of both – the underlying subject of this research. Once cultivated, new customers can be tracked and remote sales, service, and social networks utilized for continued marketing, customer satisfaction, customer retention, and other post-sale roles of sales and marketing departments.

After several years of Internet and marketing history in China, studies can now further define the Internet’s efficacy (Tsu Wee Tan & Tan Jee, 2002). Through 2005, however, commissioned B2B marketing studies in Western markets tend to reflect the marketing interests of mature markets including branding, product/company differentiation, target market analyses, customer satisfaction, and employee satisfaction. Studies have shown that in China, over 60% of commissioned studies focused on market assessments typical of emerging markets – structure, size, key players, and market entry strategies (Harrison, 2005). Marketing investments in research and channel marketing must reflect these needs.

The Internet marketing landscape continues to change rapidly (Sarne & Fouts, 2013). The academic rigor required for study design, data collection, assimilation, analysis, and peer reviewed publication has a difficult time keeping up with the rapid evolution of the Internet marketing environment. Each year, U.S. B2B marketing departments invest in marketing programs and human capital in both traditional and
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Internet-based marketing channels in China. If the literature is an indication, there are few theoretical frameworks or rigorous research completed to identify the marketing channel options and monitor their return on these investments.

Attitude preference studies have been conducted and papers provided in the popular and professional literature (Aberdeen, 2012; AgMarketing, n.d.; Doyle & Balegno, 2012; Forrester, 2012; Gartner, 2013; McLellan, 2013; Sarner & Fouts, 2013; Schulze, 2012); however, few are found in the scholarly literature and none address market channel attitudes for Chinese customers. As true for Western markets, organizational B2B buying behavior is largely not addressed by modern scholars and empirical research remains undone (Backhaus, Lügger & Koch, 2011).

Given that China is a very large, diverse country, it is extremely difficult to develop empirical study samples from all regions of China (Feng, Sun & Zhang, 2010). With the breadth and diversity of China’s B2B markets, this research focuses on the Tier 1 Shanghai and Tier 2 Suzhou and Nanjing city economic areas without an attempt to reflect specific industries or governmental influences. Studies of other urban and rural areas and research in specific industries would represent an organic, future outgrowth of this initial research. Existing marketing articles found during the literature review, provide Western based theoretical discussions and suggested frameworks without practical application (Wang & Song, 2011). As referenced by Wang and Song, “The field of Chinese management research direly needs more theory-building studies and less pure application of Western theories” (Tsui 2006: 5 as cited by Wang & Song, 2011). This dissertation addresses the gap in the academic literature to add empirical and practical marketing channel research to the organizational buyer behavior discussion of B2B marketing by U.S. companies in China.
Chapter 3: Methodology

Chapter 1 introduced the need and primary research focus of this study, its limitations, and the definition of key terms used. Chapter 2 reviewed the existing literature relevant to this study found through a search of the academic and professional literature. Topical areas included specific China related B2B research and Internet trends, including the unique challenges for U.S. companies marketing in China’s evolving culture and markets. In this Chapter 3, attention turns to the research methods used.

Overview

An attitude survey provided in Mandarin was used to collect survey responses. Resulting datasets are analyzed to determine whether significant differences exist between a Chinese B2B buying agent’s positive attitude to unsolicited Internet marketing and the buyer’s age, education level, or prior experience purchasing products/services from U.S. companies. For discussion purposes, data is explored to determine whether any significant correlation exists between the agent’s gender or frequency of Internet use and a positive attitude to Internet marketing.

Closed-end questions use Likert and frequency scaled answers to provide ordinal values. These are analyzed with t-tests to determine whether significant differences exist between group variables. Pearson r and Spearman rho analyses are completed for hypothesis testing to determine potential correlations. A factor analysis is completed to
explore contributions to variance of latent underlying factors within the survey dataset and examine the use of aggregated attitude data for hypothesis testing (Creswell, 2009; Dillman, Smyth, & Christian, 2009; Newton & Rudestam, 1999; Salkind, 2014; Santos, 1999).

The chapter is divided into three sections: research design and rationale, the survey instrument, and quantitative survey procedures. The survey is available in Appendix A-1, *Survey Instrument: English-Chinese conformed version*.

**Scope**

This research includes Chinese purchasing agents within mainland Chinese companies who purchase products from other companies (see the section *Quantitative Survey Procedures: Survey* for a discussion of the survey sample). No attempt is made to isolate or select any individual industry or group of industries. The survey includes questions for purchasing agents’ age, gender, level of education, frequency of Internet use for personal or business purposes, Internet use for personal or business purchases (e.g., e-commerce), prior experience purchasing B2B products from U.S. companies, and possible personal supplier motivations. The intent is to detect potential influences in attitude preferences and explore the effects when contrasted and compared across the demographic groups. Given that an insufficient number of Internet respondents might be received, a paper survey was prepared and available. Concerns for using mixed-method survey data collection (i.e., online and paper) are discussed in the following section, *Survey Instrument*. 
Research Design and Rationale

The original goal was to identify an existing database of relevant survey data or a tested attitude survey instrument for traditional and Internet marketing attitudes and purchase intent. Several approaches were considered.

The first approach was to identify and use an existing database(s) of relevant survey data. No such data was discovered through a search including:

- American Purchasing Society,
- American Certification Institute,
- American Production and Inventory Control Society (more commonly known as APICS),
- Supply Chain Management Association (SCMA),
- Council of Supply Chain Management Professionals (CSCMP),
- Institute for Supply Management (ISM, formerly NAPM the National Association of Purchasing Management),
- Chinese Manufacturers’ Association of Hong Kong (CMA Hong Kong),
- China Federation of Logistics & Purchasing (CFLIP), and
- International Federation of Purchasing & Supply Management (IFPSM).
- China Supply Chain & Operations Manager Club (China SCOM)
- China Supply Chain Council (CSCC)

A similar search was made of the Chinese Purchasing Managers Index based on survey data from purchasing societies within China such as the National Bureau of Statistics of China (NBS) and the China Supply Chain Council (CSCC).
The second approach was to use an established and vetted survey instrument. Several surveys were reviewed. Just as the cultural context of marketing messages is important as discussed in Chapter 2, context is also important in marketing research surveys. Although a survey instrument may have been tested in Western research, any selected instrument must be piloted and tested within a native Mandarin sample. This is to confirm that cultural miscommunications or misinterpretations do not occur within the survey questions and the Mandarin translation. No surveys were found in the academic literature that could be directly adapted for this study.

**Differences between attitude and preference surveys.** Understanding the differences between attitude and preference survey types is important as this research uses an attitude survey. Social psychology provides the context for attitude surveys, including the basic precept that “attitude” is the psychological tendency expressed by the degree of one’s favor or disfavor with a concept (Eagly & Chaiken, 1996). In attitude surveys, participants are asked to rate or rank personal opinions of discrete concepts. In contrast, “preference” surveys (often inaccurately substituted as a synonym for “attitude”) rate the survey respondent’s perceived utility or economic value of a product or service. In preference surveys, participants are asked to choose between preferred scenarios rather than their favor or disfavor with a concept. Therefore, attitude and preference surveys are inherently different frameworks for analysis (Eagly & Chaiken, 1996). This research, therefore, uses an attitudinal survey and requires nominal theoretical assumptions: Respondents may rate any or all attributes as equally important.

**Survey Instrument**

Building on the Altuna and Konuck (2009) study and attitude survey research by Wells, Kleshinski, and Lau (2012) on mobile platform Internet marketing, the author
developed a survey of nineteen questions (Davison, Li & Kam, 2008), specifically for B2B organizational buying attitudes. This survey is designed to extend earlier studies in organization buying behavior (LaPlaca & Katrichis, 2009). Since prior studies were conducted within specific sample profiles (e.g., college students or young Generation Y adults), demographic questions were added to understand the resulting broader Chinese purchasing agent population. It also includes agent attitudes for both traditional and Internet marketing and intends to provide additional insights into marketing channel communication strategies for U.S. companies marketing in China. Therefore, the survey developed and utilized was adapted from earlier studies of Internet marketing and purchase intent (Altuna & Konuck, 2009; Wells, Kleshinski & Lau, 2012).

Survey questions use a contextual framework derived from prior studies including:

- the B2B critical success factors framework proposed by Chong et al. (2011);
- the comparison of attitude and preference surveys by Phillips, Johnson, and Maddala (2002); and
- the Contextual Constructs Model (CCM) proposed by Knight and Cross (2012).

The CCM suggests that research involves both context and cognitively-driven constructs and that there exists a co-dependent nature of the relationship between these two components. Therefore, research questions must describe and correctly represent the concept being studied such as a purchasing agent’s subjective attitude preferences. The co-dependent nature of these constructs is reflected by the fact they cannot exist outside of the buyer’s individual context including the cultural and socio-political memes.

**Resulting survey.** The resulting survey is logically consistent with that of Altuna and Konuk’s (2009) survey focusing on consumer attitudes toward advertising and behavioral intentions. It addresses marketing through both traditional and digital Internet
channels to compare and contrast purchasing agents’ marketing channel attitude preferences. Likert scales from 5=Strongly Agree to 1=Strongly Disagree are adapted from Ducoffe measures (1996), Tsang et al. (2004), and Parissa and Maria (2006). Questions for Internet use, purchase frequency, experience buying products from U.S. companies, and agents’ motivations for supplier selection were added to provide a context of agents’ existing experience.

The survey includes of nineteen questions consisting of seven areas including:

- Qualifying Questions - confirming the respondent should be included in the survey results;
- Demographic Information – information such as age and education;
- Adoption – determining the respondent’s level of comfort using the Internet and traditional marketing channels;
- Trust – when using the Internet for information and transactions;
- Openness – when approached by new companies through Internet or traditional channels;
- Marketing Experience – reflecting the respondent’s company use of Internet and traditional marketing channels to purchase products; and
- Prior Purchasing Experience – specifically, prior experience purchasing from U.S. companies and motivations for selecting Chinese or U.S. suppliers.

Since the research focus is on Chinese purchasing agents, three Yes/No questions were included to help qualify responses. The first was, “Is this the first time you have taken this survey?” This question was intended to eliminate multiple testing by a single individual; however, SurveyMonkey software precludes more than one survey from a
single IP source, but does allow a respondent to re-enter and complete or modify responses of their single survey response until the close of the survey web link. The second question was, “Is Mandarin your primary language?” Although the survey was only administered in simplified Chinese, this is to confirm that Chinese native speakers were participating in the survey. The final question was, “Do you participate in the process or decisions for buying products or services for your company at work?” This question is to gather the respondent’s personal perception of their role in the actual purchasing process; however, as noted earlier, purchasing roles and influence in companies are often not isolated or organizationally defined.

To provide descriptive and quantitative data, the survey collects nominal demographic data such as gender, Likert-scaled questions from 1=Strongly Agree to 5=Strongly Disagree, and frequency questions from 1=Always to 5=Never. Additionally, some multiple response questions were included (i.e., select all that apply). All questions are framed in the positive assumption to avoid respondent errors and reverse coding issues for those responses.

The survey was pilot tested in English and Mandarin Chinese. Pilot tests are discussed in the following sections, *U.S. based English survey pilot testing* and *U.S. based Mandarin survey pilot testing*.

**U.S. based English survey pilot testing.** The research survey is administered in a language foreign to the dissertation author. It is vital that the questions are well written and translations are clear and easy for respondents to comprehend and answer without ambiguity (Dillman, 2009).

To tailor the questions and responses within a known culture without translation issues, an English survey instrument was initially developed and reviewed with four U.S.
doctoral students and five U.S. B2B business executives and purchasing agents. After adjustments, an online U.S. opt-in survey using Qualtrics survey software was conducted. Emails were sent to 450 known B2B purchasing agents. Sixty-one (61) survey responses were received. Any unmatched response pairs were eliminated from the data analyses. Fifty-five (55) completed surveys could be used representing a 13% response rate. Given the small survey sample and convenience selection, linear regression, t-tests, and other correlation analyses were largely inappropriate; however, the results helped tailor the final survey questions and remove certain nominal, categorical, and attitude ranking approaches. Based on this experience, a final survey was developed as discussed in the next section.

**Translation testing.** After the final survey was developed and translated to Mandarin by a native Chinese translator, it was back-translated to English by three native speaking Chinese fluent in English to verify the original question intent (Broyles, 2005). Follow-up interviews were conducted with each of the translation participants to understand any additional nuances or misinterpretations that may have developed. Further adjustments were made and the Mandarin questions completed for pilot testing.

**U.S. based Mandarin survey pilot testing.** The resulting Mandarin survey was pilot tested in the U.S. with ten native born Chinese business adults and MBA business students fluent in both Mandarin and English. Follow-up interviews were conducted with each pilot survey participant to understand any remaining nuances or misinterpretations that may have developed. Any necessary final adjustments were made. The resulting survey instrument is available in English and Mandarin in Appendix A1.
Quantitative Survey Procedures

**Sample Size.** A number of recommendations for determining research sample size are available in the literature. Several approaches were reviewed including the central limit theorem (Anderson, Sweeney & Williams, 2009) and the minimum size for non-experimental surveys (Kervin, 1992). Since this study anticipated using t-tests and correlation tests, adequate sample size was considered to help ensure the sample would be large enough to satisfy statistical requirements. Based on this review, a minimum sample size of 150 was selected and deemed appropriate (Dillman et al., 2009; Giles, 2002; Israel, n.d.).

**Survey sample.** The survey sample is a randomly selected group of Chinese B2B purchasing agents (as defined) who may use the Internet for personal and business purposes, and who also may participate in a company’s decision process for buying U.S. company products and services. Access to this population is through personal Jiangsu business contacts as well as the American Chamber of Commerce (Shanghai, Suzhou, and Nanjing chapters), Soochow University (SUDA, Suzhou, China), regional governmental agencies, and relevant social media groups through social media groups. These social media groups include PunchBunch, a WeChat Jiangsu province Chinese group focused on purchasing and supply chain issues and Linked-In groups including Shanghai Guanxi Network; Shanghai Expats & Returnees Jobs; Business in Jiangsu; Greater Nanjing Jiangsu Business Network; Suzhou Network; Suzhou Industrial Park Tech Pioneers (SIP-TP); and the Suzhou Guanxi Network.

Often, B2B purchasing agents are not formally defined within organizations. In large companies, the buying organization may be highly structured, and the CEO may be
involved in few buying decisions. In smaller businesses, however, there may be no formally designated buying organization, and the CEO may make many buying decisions. This study attempts to identify those persons who influence the B2B buying process, but did not attempt to determine the size of the respondents’ companies or their buying organization. A more refined target sample may be a fruitful avenue for future research.

**Survey data collection.** For this study, the research must consider the efficacy of the available approaches. Survey data can be collected in China in four basic ways (Harrison, 2005) including:

- existing databases;
- online and paper surveys with individuals;
- face-to-face and telephone interviews with individuals; and
- face-to-face and online focus group interviews.

As noted, existing databases were not available. The remaining three were considered.

As late as 2005, Chinese online surveys were typically limited to IT managers with Internet access and familiarity. China based research agencies resorted to telephone interviews, completing the online answers themselves for respondents’ answers. It appears that face-to-face and telephone interviews have remained prominent. In more recent years, however, Internet penetration and adoption by the general Chinese population has expanded dramatically for both personal and business purposes, as has these netizens’ comfort with Internet use. This appears especially true with younger generations and those in major urban areas such as Shanghai, Suzhou, and Ningbo. B2B online surveys are gaining acceptance and have become a preferred method for researchers’ survey data collection (B2B International, 2014).
This research first relied on Internet based and paper surveys. Phone surveys could be conducted to achieve the required sample size and demographics (e.g., for older generations or purchasing agents with limited Internet access). The survey is formatted to be completed in each survey format; however, phone surveys proved not to be required.

For purposes of the online survey in China, an American based online survey platform was employed. Survey Monkey (www.surveymonkey.com) supports Simplified Chinese. It is readily available in China for both PC and mobile platforms and is similar to Qualtrics survey software (www.qualtrics.com) used in the initial U.S. pilot study.

Whenever mixed-modes are used for data collection and integrating survey results, researchers must be concerned that the participants’ response context is the same in each mode (Miles & King, 1998). Numerous studies have researched the potential for mixed-mode survey response disparities. These studies, however, were conducted in individualistic cultures such as the U.S. with disparate, inconclusive results (Fang, 2006). In any event, these results may not translate accurately to collectivist cultures such as China with the inherent concerns for group social acceptance compared to individualistic cultures.

The primary concern is that in offline paper surveys delivered in group settings, respondents in collectivist societies such as China may be more likely to provide socially acceptable responses while online surveys provide a greater sense of anonymity and greater candor. One-on-one phone interviews do not appear to create group issues of socially acceptable responses. Market researchers have found that Chinese respondents tend to provide honest and reliable responses to quantitative questions of fact or opinion; however, qualitative questions requiring ideas, prospective opinions, projections, or other speculative questions do not work as well as in Western surveys (Harrison, 2014).
Considering these differences, this dissertation’s survey is quantitative based on the respondent’s current activities within the context of the respondent’s individual facts or opinions. Davidson, Li, and Kam (2006) examined the feasibility of combining Internet and paper surveys in collectivist cultures. Fang, Wen, and Pryvotok (2006) extended the work of Davidson et al. in collectivist societies (i.e., SouthWestern China college students) Fang surmised that paper surveys potentially reduce anonymity and contribute to mixed-mode discrepancies. Fang found greater extreme value responses in Internet surveys than paper surveys but no significant score discrepancies between Internet and paper responses across genders. Age, education, and income level disparities were not included, and, therefore, Fang’s study provides little additional insights to reduce mixed-mode discrepancies. To reduce potential collectivist survey responses and enhance respondents’ feeling of anonymity, paper surveys in this study were completed with individuals’ paper responses isolated from others. No personally identifying data was requested or gathered. Paper responses were distributed by one third party administrator and data reporting was completed by a separate, unrelated third party administrator. No forum-based or group surveys were utilized in either paper or online surveys.

Quantitative Measures

Introduction. This study analyzes the attitudes of Chinese B2B purchasing agents when first approached as potential customers by U.S. companies through traditional and Internet marketing channels. This dissertation posits that several factors affect agents’ attitudes to Internet marketing and Internet marketing specifically by U.S. companies. These include the agent’s age, level of education, existing level of comfort
using the Internet, and prior experience buying from U.S. companies. This dissertation’s hypotheses are based on three research questions:

**Research Question 1:** What is the relationship between age and Internet marketing attitudes among native Chinese B2B purchasing agents?

**Research Question 2:** What is the relationship between education and Internet marketing attitudes among native Chinese B2B purchasing agents?

**Research Question 3:** Is there a difference in marketing Internet communication attitudes between Chinese B2B purchasing agents who have prior occasional or frequent experience purchasing products or services from U.S. companies and those agents without such experience?

For purposes of producing quantitative comparative data, survey questions are characterized in six aggregate statistical groups of which four are indicative of purchasing agents’ attitudes. Table 10 contains the descriptive and quantitative data for each category including:

- survey respondent qualifying questions (set A);
- demographic information (set B);
- two sets of questions to measure frequency and comfort using the Internet use for business purposes (sets C and D);
- four sets of questions to measure marketing channel attitudes (sets E, F, G, and H);
- two sets of questions to measure U.S. buying experience (sets I and J); and
- one set of questions to measure purchasing motivations including potential personal benefits reflected by Chinese corruption issues.
These categories then provide the data constructs upon which analyses are conducted using XLStat software (www.XLStat.com). Results, analyses, and discussion are divided into four categories – descriptive statistics, quantitative testing of the hypotheses, factor analyses, and inferential statistics.
### Table 10. Component segments of measurement items.

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<thead>
<tr>
<th>A. Qualifying Questions</th>
<th>1.</th>
<th>Is this the first time you have taken this survey?</th>
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<td>2.</td>
<td>Is Mandarin your primary language?</td>
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<td></td>
<td>3.</td>
<td>Do you participate in the process or decisions for buying products or services for your company?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>B. Demographic Questions</th>
<th>1.</th>
<th>Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2.</td>
<td>Age Category</td>
</tr>
<tr>
<td></td>
<td>3.</td>
<td>Education Level (1 - 6): High school, Some College but no degree, Associate Degree, Bachelor; Master, Doctorate, PhD</td>
</tr>
<tr>
<td></td>
<td>4.</td>
<td>Position in Company (1 - 7): Administrative Support, Buyer or Purchasing Agent, Purchasing Manager, Purchasing Director, Vice President, President/CEO/Owner, Other</td>
</tr>
<tr>
<td></td>
<td>5.</td>
<td>In what general industry does your company participate? (1-18)</td>
</tr>
</tbody>
</table>

| C. Frequency of Internet | 1. | How many hours per day do you typically use the Internet for any reason? |

<table>
<thead>
<tr>
<th>D. Comfort using Internet</th>
<th>1.</th>
<th>I consider myself good at using the Internet to research information.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2.</td>
<td>I use the Internet to research companies, products, and services.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>E. Attitude of Traditional Marketing Channels</th>
<th>1.</th>
<th>When I am first interested in buying a new product or service from another business, I often ask a Friend or Trusted Business Person.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2.</td>
<td>When I am first interested in buying a new product or service from another business, I often use Industry Advertisements.</td>
</tr>
<tr>
<td></td>
<td>3.</td>
<td>When I am first interested in buying a new product or service from another business, I often use Industry Articles and Magazines.</td>
</tr>
<tr>
<td></td>
<td>4.</td>
<td>When I am first interested in buying a new product or service from another business, I often attend Conferences.</td>
</tr>
<tr>
<td></td>
<td>5.</td>
<td>When I am first interested in buying a new product or service from another business, I often attend Trade Shows.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>F. Attitude of Internet Marketing Channels</th>
<th>1.</th>
<th>When I am first interested in buying a new product or service from another business, I often use Company or Supplier Websites.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2.</td>
<td>When I am first interested in buying a new product or service from another business, I often use Back or other Search Engine Specific Industry-based Search Engines.</td>
</tr>
<tr>
<td></td>
<td>3.</td>
<td>When I am first interested in buying a new product or service from another business, I often use Online shopping sites such as Alibaba.</td>
</tr>
<tr>
<td></td>
<td>4.</td>
<td>When I am first interested in buying a new product or service from another business, I often use Industry Product Review Websites or Social Media Websites.</td>
</tr>
<tr>
<td></td>
<td>5.</td>
<td>When I am first interested in buying a new product or service from another business, I often attend Online Webinars.</td>
</tr>
<tr>
<td></td>
<td>6.</td>
<td>When I am first interested in buying a new product or service from another business, I often attend Online Events.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>G. Attitude preference for approach through Traditional Marketing Channels</th>
<th>1.</th>
<th>When I am first approached by a new company to purchase their products or services, I prefer to be introduced by a Friend or Trusted Business Person.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2.</td>
<td>When I am first approached by a new company to purchase their products or services, I prefer to be introduced in Person.</td>
</tr>
<tr>
<td></td>
<td>3.</td>
<td>When I am first approached by a new company to purchase their products or services, I prefer to be introduced at a Trade Show As a Conference.</td>
</tr>
<tr>
<td></td>
<td>4.</td>
<td>When I am first approached by a new company to purchase their products or services, I prefer to be introduced at a Networking Event.</td>
</tr>
<tr>
<td></td>
<td>5.</td>
<td>When I am first approached by a new company to purchase their products or services, I prefer to be introduced by a Phone Call.</td>
</tr>
<tr>
<td></td>
<td>6.</td>
<td>When I am first approached by a new company to purchase their products or services, I prefer to be introduced by a Personal Visit.</td>
</tr>
<tr>
<td></td>
<td>7.</td>
<td>When I am first approached by a new company to purchase their products or services, I prefer to be introduced by Direct Mail.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>H. Attitude preference for approach through Internet Marketing Channels</th>
<th>1.</th>
<th>When I am first approached by a new company to purchase their products or services, I prefer to be introduced by an Email from the company.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2.</td>
<td>When I am first approached by a new company to purchase their products or services, I prefer to be introduced by an Email from a person at the company.</td>
</tr>
<tr>
<td></td>
<td>3.</td>
<td>When I am first approached by a new company to purchase their products or services, I prefer to be introduced through an Email from a Friend or Trusted Business Person.</td>
</tr>
<tr>
<td></td>
<td>4.</td>
<td>When I am first approached by a new company to purchase their products or services, I prefer to be introduced through a Webinar or Other Online Event.</td>
</tr>
<tr>
<td></td>
<td>5.</td>
<td>When I am first approached by a new company to purchase their products or services, I prefer to be introduced through a Social Media site such as Dianping, Renren, Sina Weibo, QQ, 51, or WeChat.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>I. Experience with US companies</th>
<th>1.</th>
<th>My company purchases Products or Services from U.S. companies.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2.</td>
<td>My company uses the Internet to purchase Products or Services from U.S. companies.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>J. Satisfaction with US companies</th>
<th>1.</th>
<th>My company purchases Products or Services from U.S. companies and our experience is very satisfactory.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2.</td>
<td>My company purchases Products or Services from U.S. companies and our experience is very satisfactory.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>K. Purchase Motivations</th>
<th>1.</th>
<th>You prefer work with Chinese business because (1-6, all that apply)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2.</td>
<td>You prefer work with a U.S. business because (1-6, all that apply)</td>
</tr>
</tbody>
</table>
Descriptive Statistics

Descriptive statistics provide an overview of the buyer sample using frequencies, distributions, means, standard deviations, skew, and kurtosis for purchasing agents’ age, gender, level of education, company position (e.g., buyer, purchasing agent, manager, president, etc.), frequency and comfort of Internet use, and prior experience purchasing from U.S. companies. The factor analysis may provide additional insights into the dataset as well. This influence is then incorporated into the inferential statistics discussion.

Quantitative Statistics

Various quantitative tests are used including t-tests, parametric and non-parametric tests, and factor analyses. Tests for significance are at .05 (p < .05) using a minimum sample size of 150 to reduce Type II error risks.

Quantitative Hypothesis Testing. The hypotheses are grouped into two categories for quantitative analysis. The first category is for H1 and H2 to test for significant associations between variables. The second category is for H3 to test for a significant difference between purchasing agents’ with and without prior experience purchasing products from U.S. companies and a positive Internet marketing attitude. Internet Marketing Attitude is an aggregate measure of 25 variables in all cases and tests assume a normal distribution unless otherwise noted.

Correlation and linear regression analyses both test statistical significance for variable relationships. In biological and socio-psychological explorations such as this study, a hidden nominal variable may also exist such as the individual respondent which keeps two variable measurements paired. Additionally in such explorations, confounding variables may exist that cannot be identified, finitely defined, or controlled as in other
explorations and quantitative analyses. Correlation tests are used to first identify associations and then combined with linear regression to determine the strength of any such associations (McDonald, 2009). Pearson r and Spearman rho are frequently used correlation tests for associations where Pearson is a parametric data test while Spearman is a non-parametric test. Both test whether associations are statistically confident and provide the standard error and confidence levels for the sample values. These tests are applied as appropriate to draw conclusions regarding the associations. Linear regression analysis is completed for $R^2$ to determine the strength of correlations, if any.

T-tests are used to determine whether a significant difference exists between a positive attitude to Internet marketing and the H3 variables; that is, the variables for agents with and without prior purchasing experience with U.S. companies. For any potential violations of normal section distributions, t-tests are considered robust without introducing serious test errors (Paulson, 2003). T-tests are used to determine Type I errors and independent means, as well as whether the difference of the each of the two variables are significant.

**Factor analysis.** The 23 survey variables used to measure attitudes (Table 10, sections E, F, G, and H) are factor analyzed to explore any additional consistent underlying components. In the fields of education and psychology, factor analysis is considered the primary method to interpret self-reporting surveys and improves with sample sizes greater than 100 (Williams, Brown & Onsman, 2012). When conducting factor analysis, both the Bartlett’s test and the Kaiser-Meyer-Olkin measure are commonly used to provide the researcher insights into the adequacy of factor analysis and the resulting linear regression and correlation matrices. Additionally, Chronbach’s
alpha is calculated to reflect internal consistencies for each segment with three or more components and any latent groups identified in the exploratory factor analysis, if any.

The Bartlett’s test of sphericity approximates a chi-square and tests for whether the data is appropriate for factor analysis. Test values of less than .05 indicate a high probability that the dataset is appropriate for factor analysis while results greater than 0.1 (>0.10) indicate the dataset is inappropriate.

The Kaiser-Meyer-Olkin (KMO) measurement tests sampling adequacy. KMO provides results between 0 and 1. Results between 0.5 and 1.0 indicate that factor analysis is an appropriate application. Results below 0.5 indicate that factor analysis may not be appropriate and/or the extracted factors do not explain a significant amount of the dataset variance. These factors are then tested for Eigenvalues greater than 1.0 to identify any significance variance explained by each factor.

**Inferential statistics.** Based on the descriptive statistics, factor analysis, and hypothesis tests, conclusions are drawn and discussed. If one posits that results are representative of Chinese purchasing agents within the context of normal distributions for the survey sample (e.g., purchasing agents in Tier I and Tier II cities), then prescriptive, actionable recommendations can be proposed for U.S. companies marketing to Chinese companies in these China’s B2B markets. As a result, this research helps fill the research gap exploring cross-cultural organizational buying behavior (Backhaus, Lügger & Koch, 2011). As well, it may provide an initial basis for the field of Chinese management research needs rather than pure application of Western marketing research (Tsui 2006: 5, as cited by Wang & Song, 2011).
Chapter 4: Results

The previous chapters discussed the research intent, the relevant literature, and the methods used in the study. Chapter 3 included aspects of the research design and scope, as well as the quantitative procedures and measures used. Chapter 4 presents the results of the analyses and hypothesis testing.

The intent of this study was to explore native Chinese B2B purchasing agents’ attitudes and perceptions when being approached by U.S. companies as prospective customers. The study provides insight into one basic research question: When U.S. companies contact B2B Chinese companies as prospective new business customers, do the prospective Chinese customers prefer traditional marketing approaches or newer Internet marketing approaches? It examines traditional and Internet marketing channels that can be utilized as a B2B product suppliers solicit Chinese purchasing agents. It also examines the survey respondents’ demographics including Internet specific measures such as average daily use and perceived comfort and skill when utilizing the Internet for company or product research, purchases, and communications. The three research questions are:

**Research Question 1:** What is the relationship between age and Internet marketing attitudes among native Chinese B2B purchasing agents?

**Research Question 2:** What is the relationship between education and Internet marketing attitudes among native Chinese B2B purchasing agents?
Research Question 3: Is there a difference in marketing Internet communication attitudes between Chinese B2B purchasing agents who have prior occasional or frequent experience purchasing products or services from U.S. companies and those agents without such experience?

Survey Sampling and Response Collection

Survey respondents were drawn from three primary Chinese resources including business people known to the author, business and supply chain organizations, and working Executive MBA (EMBA) students at Soochow University, Suzhou, China (SUDA). Paper and online surveys provided in simplified Chinese were completed by respondents in the study geographical areas - Shanghai, Suzhou, Ningbo, and other regions of Jiangsu province, China.

The survey included 23 survey variables used to measure attitudes (Table 10, Chapter 3, Methodology). The variables are grouped into five sections including:

Section D. Comfort using the Internet (2 questions),
Section E. Attitude towards traditional marketing channels (5 questions),
Section F. Attitude towards Internet marketing channels (6 questions),
Section G. Attitude preference for approach through traditional marketing channels (7 questions), and
Section H. Attitude preference for approach through Internet marketing channels (5 questions).

In total, 188 surveys were received (Table 11). Twenty-eight (28) paper surveys and four (4) online surveys were incomplete and removed from data results. The
remaining 156 completed results came from two sources – 101 paper surveys (65%) and 55 online surveys (35%).

Table 11. Survey types and completion rates.

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
<th>Percent of Total</th>
<th>Percent of Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surveys Started</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paper</td>
<td>129</td>
<td>69%</td>
<td></td>
</tr>
<tr>
<td>Online</td>
<td>59</td>
<td>31%</td>
<td></td>
</tr>
<tr>
<td>Total Started</td>
<td>188</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Surveys completed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paper</td>
<td>101</td>
<td>54%</td>
<td>65%</td>
</tr>
<tr>
<td>Online</td>
<td>55</td>
<td>29%</td>
<td>35%</td>
</tr>
<tr>
<td>Total Completed</td>
<td>156</td>
<td>83%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Of the completed paper surveys utilized, 23 (15%) were from individual business people and 78 (50%) paper surveys were from Executive Masters in Business Administration (eMBA) working adults at SUDA. The SUDA surveys were collected and entered manually by a SUDA student volunteer via a survey web-link. The balance of completed surveys (55) was from online sources (Table 12).

Table 12. Survey response detail.

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completed Survey Sources</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paper</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business person interviews and contacts</td>
<td>23</td>
<td>15%</td>
</tr>
<tr>
<td>Souzhou University eMBA students</td>
<td>78</td>
<td>50%</td>
</tr>
<tr>
<td>Online</td>
<td>55</td>
<td>35%</td>
</tr>
<tr>
<td>Total Completed Survey Sources</td>
<td>156</td>
<td>100%</td>
</tr>
</tbody>
</table>

Email requests to complete the survey were sent to 1050 relevant potential participants. MailChimp email campaign software (www.mailchimp.com) was used for
distribution and tracking purposes (Table 13). Of the 1050 emails sent, 77.7% (816) were successfully delivered. Of these successful deliveries, 63.3% (665) were opened by recipients with 5.5% (45) accessing the web-link and completing the survey.

Additionally, the survey web-link was given to 25 individual business contacts of the author, the Suzhou Chamber of Commerce, the Suzhou Foreign Affairs Office (SFAO), and a WeChat business purchasing group of 77 individuals. An additional 10 online surveys were received. Since web-link survey sources are anonymous, none of these responses can be traced to any individual group source.

Table 13. Survey online response rates.

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
<th>Percent</th>
<th>Response Rate (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email Requests to Individuals for Online Participation (1)</td>
<td>1050</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>Successful Deliveries</td>
<td>816</td>
<td>77.7%</td>
<td></td>
</tr>
<tr>
<td>Total Bounces</td>
<td>234</td>
<td>22.3%</td>
<td></td>
</tr>
<tr>
<td>Total Opens</td>
<td>665</td>
<td>63.3%</td>
<td></td>
</tr>
<tr>
<td>Unique Opens</td>
<td>275</td>
<td>26.2%</td>
<td>33.7%</td>
</tr>
<tr>
<td>Unique Click through</td>
<td>45</td>
<td>4.3%</td>
<td>5.5%</td>
</tr>
<tr>
<td>Additional Online Surveys Completed</td>
<td>10</td>
<td>4.3%</td>
<td>1.2%</td>
</tr>
<tr>
<td>Total Completed Online Surveys</td>
<td>55</td>
<td>5.2%</td>
<td>6.7%</td>
</tr>
</tbody>
</table>

Note: (1) Unique individuals; does not include any reminder emails sent. (2) Responses based on completed online surveys.

**Results Organization**

Descriptive statistics are presented with additional demographic results including frequency (%), mean (M), median (Mdn), standard deviation of the sample (SD, n-1), and skewness (Pearson). Next, quantitative hypothesis tests are presented.

Following hypothesis testing, additional analyses were completed where hypothesis test results of aggregated data was inconclusive. These tests were conducted for additional survey insights and discussion purposes.
Finally, factor analysis was conducted. Factor analysis is considered a primary method to interpret self-reporting surveys and improves with sample sizes greater than 100 (Williams, Brown & Onsman, 2012); therefore, the variables are explored to reveal and confirm any consistent underlying components. Each attitude category was analyzed by utilizing the mean of the aggregate sum of the means for each category’s questions (Pett, Lackey, Sullivan, 2003). Multiple questions were aggregated from four survey sections (Table 10):

- Section E – Attitudes of Traditional Marketing Channels,
- Section F – Attitudes of Internet Marketing Channels,
- Section G - Attitude Preferences to approach through Traditional Marketing Channels, and
- Section H - Attitude Preferences to approach through Internet Marketing Channels.

Descriptive Statistics

Sample Characteristics

Surveys were administered only in simplified Chinese and 98.7% of respondents indicate Mandarin as their primary language. Key statistics relevant to the survey sample and hypotheses are presented:

- age and gender,
- level of education,
- frequency, comfort, and skill using the Internet, and
• respondents’ prior experience purchasing from U.S. B2B companies.

Additional summary information such as job function, research and purchasing attitudes, and marketing contact attitudes are provided to facilitate the discussion of results and inferential statistics.

**Age and Gender**

Respondents’ ages were from 21 to 66 with an average of 33.6 years (Table 14 and Figure 8). A Jarque-Bera test indicated the nine age categories are a normal distribution, albeit truncated at 21 (p = 0.041, alpha=.05). The male:female ratio of the sample is 60.3% (94) male and 39.7% (62) female.

### Table 14. Survey age distribution (n=156, M=2.72=33.6 years, SD = 1.26 = 6.3 years)

<table>
<thead>
<tr>
<th>Age</th>
<th>Frequency</th>
<th>Male Percent of Grand Total</th>
<th>Male Frequency</th>
<th>Male Percent of Grand Total</th>
<th>Percent Difference Male:Female</th>
<th>Grand Total</th>
<th>% Cumulative</th>
</tr>
</thead>
<tbody>
<tr>
<td>21-25</td>
<td>5</td>
<td>3.2%</td>
<td>3</td>
<td>1.9%</td>
<td>1.3%</td>
<td>156</td>
<td>100.0%</td>
</tr>
<tr>
<td>26-30</td>
<td>48</td>
<td>30.8%</td>
<td>32</td>
<td>20.5%</td>
<td>10.3%</td>
<td>80</td>
<td>51.3%</td>
</tr>
<tr>
<td>31-35</td>
<td>19</td>
<td>12.2%</td>
<td>17</td>
<td>10.9%</td>
<td>1.3%</td>
<td>36</td>
<td>23.1%</td>
</tr>
<tr>
<td>36-40</td>
<td>10</td>
<td>6.4%</td>
<td>4</td>
<td>2.6%</td>
<td>3.8%</td>
<td>14</td>
<td>9.0%</td>
</tr>
<tr>
<td>41-45</td>
<td>4</td>
<td>2.6%</td>
<td>3</td>
<td>1.9%</td>
<td>0.6%</td>
<td>7</td>
<td>4.5%</td>
</tr>
<tr>
<td>46-50</td>
<td>4</td>
<td>2.6%</td>
<td>3</td>
<td>1.9%</td>
<td>0.6%</td>
<td>7</td>
<td>4.5%</td>
</tr>
<tr>
<td>51-55</td>
<td>2</td>
<td>1.3%</td>
<td>0</td>
<td>0.0%</td>
<td>0.0%</td>
<td>2</td>
<td>1.3%</td>
</tr>
<tr>
<td>56-60</td>
<td>1</td>
<td>0.6%</td>
<td>0</td>
<td>0.0%</td>
<td>0.0%</td>
<td>1</td>
<td>0.6%</td>
</tr>
<tr>
<td>61-65</td>
<td>1</td>
<td>0.6%</td>
<td>0</td>
<td>0.0%</td>
<td>0.0%</td>
<td>1</td>
<td>0.6%</td>
</tr>
<tr>
<td>66-over</td>
<td>0</td>
<td>0.0%</td>
<td></td>
<td></td>
<td></td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>Total</td>
<td>94</td>
<td>60.3%</td>
<td>62</td>
<td>39.7%</td>
<td>20.5%</td>
<td>156</td>
<td>100.0%</td>
</tr>
<tr>
<td>Grand Total (n)</td>
<td>156</td>
<td>100.0%</td>
<td>156</td>
<td>100.0%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Figure 8. Distribution of age groups (n = 156, M = 33.6 years, SD = 1.26).

Education

The survey sample is a highly educated group with 98.1% who have completed a bachelors or post graduate degree. Bachelor degrees represented 76.3%, Masters degrees 19.9%, and Doctoral degrees 1.9% (Figure 9).
Job Function

Respondents were asked to identify their business job function. All respondents represented they participate in researching companies and products. Sixty respondents (45%) indicated their primary responsibility was purchasing – administrative (7.1%), purchasing agent (7.7%), purchasing manager (7.1%), purchasing director (4.5%), vice president (0.6%), or president/CEO/business owner (11.5%). Both men and women are represented in each job category, while women slightly outnumber men in Administrative positions (Figure 10).

Sixteen of all 18 industry categories were represented: real estate leasing and mining were not represented. Of the eighteen (18) industry categories, 28% were from...
manufacturing, 21% from financial industries, and 8% from health and welfare industries. The balance of represented industries were each less than 7% of respondents.

Figure 10. Survey respondents’ with purchasing job roles (n=60, male=39, female=21).

Internet Use, Comfort, and Skill

Internet comfort and skill. The survey asked the purchasing agents’ self-perception of their ability to use the Internet for personal and business purposes. It makes statements such as, “I consider myself good at using the Internet …” The Likert scale included five categories ranging from 1 = Strongly Agree to 5 = Strongly Disagree. Utilizing the aggregate of both questions, 90% (141) of respondents reported they are comfortable and good at using the Internet for company or product research and purchases (Figure 11).
Internet use. One hundred percent (100%) of respondents utilize the Internet and 87.2% utilize it more than two (2) hours per day. Over half (58.3%) utilize the Internet for four (4) or more hours per day regardless of age or job function. While 90% of respondents’ companies utilize the Internet to purchase products, 69% (107) purchase products from U.S. companies occasionally or more frequently with 63% (99) of companies using the Internet for such purchases (Table 15).

This dissertation posits that younger purchasing agents demonstrate a significant increase in Internet use. Table 15 presents respondents’ age, relative Internet use, and self-perceived skill level.
Table 15. Aggregated responses for comfort and skill using Internet for company and product research (n=156).

<table>
<thead>
<tr>
<th>Age</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neither Agree nor Disagree</th>
<th>Disagree</th>
<th>Grand Total</th>
<th>Cumulative Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>21-25</td>
<td>1.3%</td>
<td>3.2%</td>
<td>0.6%</td>
<td>0.0%</td>
<td>5.1%</td>
<td>5.2%</td>
</tr>
<tr>
<td>26-30</td>
<td>14.7%</td>
<td>32.1%</td>
<td>4.5%</td>
<td>0.0%</td>
<td>51.3%</td>
<td>56.4%</td>
</tr>
<tr>
<td>31-35</td>
<td>5.8%</td>
<td>14.1%</td>
<td>1.9%</td>
<td>1.3%</td>
<td>23.1%</td>
<td>79.5%</td>
</tr>
<tr>
<td>36-40</td>
<td>2.6%</td>
<td>5.8%</td>
<td>0.6%</td>
<td>0.0%</td>
<td>9.0%</td>
<td>88.5%</td>
</tr>
<tr>
<td>41-45</td>
<td>0.6%</td>
<td>3.2%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>4.5%</td>
<td>92.9%</td>
</tr>
<tr>
<td>46-50</td>
<td>0.6%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.6%</td>
<td>97.4%</td>
</tr>
<tr>
<td>51-55</td>
<td>1.3%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>1.3%</td>
<td>98.7%</td>
</tr>
<tr>
<td>56-60</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.6%</td>
<td>99.4%</td>
</tr>
<tr>
<td>61-65</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.6%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Internet Research. Ten questions asked how often respondents utilize traditional or Internet resources when researching companies or products (Always = 1, Never = 5, n=156). Of all respondents, 84.6% utilize traditional sources occasionally or more often and 48.6% utilize traditional sources frequently or always (Table 16). In comparison, 90% utilize Internet sources occasionally or more often and 58.7% utilize the Internet frequently or always.
Table 16. Research comparison for traditional and Internet sources by frequency.

<table>
<thead>
<tr>
<th></th>
<th>Always Count</th>
<th>Frequently Count</th>
<th>Occasionally Count</th>
<th>Rarely Count</th>
<th>Never Count</th>
<th>Total Count</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Traditional Sources</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Friend</td>
<td>27</td>
<td>88</td>
<td>35</td>
<td>6</td>
<td>0</td>
<td>156</td>
</tr>
<tr>
<td>Ads</td>
<td>13</td>
<td>71</td>
<td>59</td>
<td>11</td>
<td>2</td>
<td>156</td>
</tr>
<tr>
<td>Articles</td>
<td>12</td>
<td>53</td>
<td>61</td>
<td>28</td>
<td>2</td>
<td>156</td>
</tr>
<tr>
<td>Conferences</td>
<td>9</td>
<td>53</td>
<td>58</td>
<td>28</td>
<td>8</td>
<td>156</td>
</tr>
<tr>
<td>Trade Shows</td>
<td>12</td>
<td>41</td>
<td>68</td>
<td>27</td>
<td>8</td>
<td>156</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>73</td>
<td>306</td>
<td>281</td>
<td>100</td>
<td>20</td>
<td>780</td>
</tr>
<tr>
<td><strong>Weighted % (1)</strong></td>
<td>9.4%</td>
<td>39.2%</td>
<td>36.0%</td>
<td>12.8%</td>
<td>2.6%</td>
<td>100.0%</td>
</tr>
<tr>
<td><strong>Cumulative %</strong></td>
<td>9.4%</td>
<td>48.6%</td>
<td>84.6%</td>
<td>97.4%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td><strong>Internet Sources</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supplier Website</td>
<td>37</td>
<td>78</td>
<td>34</td>
<td>5</td>
<td>2</td>
<td>156</td>
</tr>
<tr>
<td>Search Engines</td>
<td>40</td>
<td>83</td>
<td>29</td>
<td>3</td>
<td>1</td>
<td>156</td>
</tr>
<tr>
<td>E-Commerce Sources</td>
<td>23</td>
<td>71</td>
<td>50</td>
<td>10</td>
<td>2</td>
<td>156</td>
</tr>
<tr>
<td>Social Media</td>
<td>17</td>
<td>62</td>
<td>66</td>
<td>10</td>
<td>1</td>
<td>156</td>
</tr>
<tr>
<td>Webinars</td>
<td>9</td>
<td>38</td>
<td>65</td>
<td>38</td>
<td>6</td>
<td>156</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>126</td>
<td>332</td>
<td>244</td>
<td>66</td>
<td>12</td>
<td>780</td>
</tr>
<tr>
<td><strong>Weighted % (1)</strong></td>
<td>16.2%</td>
<td>42.6%</td>
<td>31.3%</td>
<td>8.5%</td>
<td>1.5%</td>
<td>100.0%</td>
</tr>
<tr>
<td><strong>Cumulative %</strong></td>
<td>16.2%</td>
<td>58.7%</td>
<td>90.0%</td>
<td>98.5%</td>
<td>100.0%</td>
<td></td>
</tr>
</tbody>
</table>

As shown, 9.4% always utilize traditional research sources compared to 16.2% who always utilize Internet sources. For those using a source frequently or more often, 48.6% utilize traditional sources compared to 58.7% who utilize Internet sources (Table 17).
Table 17. Comparison of traditional and Internet research sources by frequency.

<table>
<thead>
<tr>
<th>Traditional Research Sources</th>
<th>Friend</th>
<th>Ads</th>
<th>Articles</th>
<th>Conferences</th>
<th>Trade Shows</th>
<th>Total Traditional</th>
<th>Cumulative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Response</td>
<td>Count</td>
<td>%</td>
<td>Count</td>
<td>%</td>
<td>Count</td>
<td>Count</td>
<td>%</td>
</tr>
<tr>
<td>Always</td>
<td>27</td>
<td>17%</td>
<td>13</td>
<td>8%</td>
<td>12</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>Frequently</td>
<td>88</td>
<td>56%</td>
<td>71</td>
<td>46%</td>
<td>53</td>
<td>34%</td>
<td>53</td>
</tr>
<tr>
<td>Occasionally</td>
<td>35</td>
<td>22%</td>
<td>59</td>
<td>38%</td>
<td>61</td>
<td>39%</td>
<td>58</td>
</tr>
<tr>
<td>Rarely</td>
<td>6</td>
<td>4%</td>
<td>11</td>
<td>7%</td>
<td>28</td>
<td>18%</td>
<td>28</td>
</tr>
<tr>
<td>Never</td>
<td>0</td>
<td>0%</td>
<td>2</td>
<td>1%</td>
<td>2</td>
<td>1%</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>156</td>
<td>100%</td>
<td>156</td>
<td>100%</td>
<td>156</td>
<td>100%</td>
<td>156</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Internet Research Sources</th>
<th>Supplier Website</th>
<th>Search Engines</th>
<th>E-commerce</th>
<th>Social Media</th>
<th>Webinars</th>
<th>Total Internet</th>
<th>Cumulative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Response</td>
<td>Count</td>
<td>%</td>
<td>Count</td>
<td>%</td>
<td>Count</td>
<td>%</td>
<td>Count</td>
</tr>
<tr>
<td>Always</td>
<td>37</td>
<td>24%</td>
<td>40</td>
<td>26%</td>
<td>23</td>
<td>15%</td>
<td>17</td>
</tr>
<tr>
<td>Frequently</td>
<td>78</td>
<td>50%</td>
<td>83</td>
<td>53%</td>
<td>71</td>
<td>46%</td>
<td>62</td>
</tr>
<tr>
<td>Occasionally</td>
<td>54</td>
<td>22%</td>
<td>29</td>
<td>15%</td>
<td>50</td>
<td>32%</td>
<td>66</td>
</tr>
<tr>
<td>Rarely</td>
<td>5</td>
<td>3%</td>
<td>3</td>
<td>2%</td>
<td>10</td>
<td>6%</td>
<td>10</td>
</tr>
<tr>
<td>Never</td>
<td>2</td>
<td>1%</td>
<td>1</td>
<td>1%</td>
<td>2</td>
<td>1%</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>156</td>
<td>100%</td>
<td>156</td>
<td>100%</td>
<td>156</td>
<td>100%</td>
<td>156</td>
</tr>
</tbody>
</table>

Note: (1) weighted percentage based on total responses of 780 for traditional or Internet sources. (2) weighted percentages for cumulative responses of 1560 for total frequency category.

Hypothesis Testing

Hypothesis testing was completed for each of the research questions and corresponding hypotheses. First, decisions were made regarding parametric and non-parametric analyses to test for associations among variables for hypotheses 1 and 2. A t-test was conducted for Hypothesis 3 to compare any significant differences between the two survey groups based on the agents’ prior experience purchasing from U.S. companies. Finally, additional analyses were completed for discussion purposes and to confirm the use of aggregated attitude factors in the hypothesis tests.
Research Question 1

What is the relationship between age and Internet marketing attitudes among native Chinese B2B purchasing agents?

Hypothesis 1 (H1)

*There is a negative association between age and Internet marketing attitudes among Chinese B2B purchasing agents such that those who are younger show more positive attitude towards Internet marketing communications than their older counterparts.*

Conclusions Hypothesis 1

The Pearson correlation for Age and Aggregate Marketing Contact Attitude: Internet Channels is not significant ($r = -0.033, p = .679$) and does not support the hypothesis. The hypothesis is rejected: That is, although there is a weak negative association between age and Internet marketing attitudes among Chinese B2B purchasing agents that association is not significant. As such, no further assessment of relationships were pursued (e.g., linear regression).

Table 18. Pearson correlation matrix results for Age and Aggregate Marketing Contact Attitude: Internet Channels (n=156, p = .679).

<table>
<thead>
<tr>
<th>Variable</th>
<th>Age</th>
<th>Aggregate Marketing Contact Attitude: Internet Channels</th>
<th>p</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>1</td>
<td>-0.033</td>
<td>0.679</td>
<td>Not Significant</td>
</tr>
<tr>
<td>Aggregate Marketing Contact Attitude: Internet Channels</td>
<td>-0.033</td>
<td>1</td>
<td>0.679</td>
<td>Not Significant</td>
</tr>
</tbody>
</table>

*Values in bold are different from 0 with $p < 0.05$*
H1 test approach. The first goal was to determine whether any association exists between the variables in a data set without assuming either a cause-and-effect or a best fit line through the data points (McDonald, 2009). Both Pearson r and Spearman rho ($r_s$) analyses provide a quantitative measure of the association between any two variables and whether such association is positive or negative (+1.0 to -1.0); that is, one increases as the other increases (or decreases).

Two conditions must be determined to use the Pearson parametric – the distribution must be normal and the variables must be interval data. Although variables may be normally distributed, the Spearman non-parametric test is chosen for ordinal variables or when the variables are not normally distributed.

A Jarque-Bera test of the survey sample for age indicated the nine categories representing the Chinese adult workforce population (ages 21 through 65) approximates a normal distribution skewed right ($p = 0.041, \text{skew}=1.74$).

A Pearson parametric correlation test was deemed appropriate. Age variables structured in equal intervals across the entire sample can be used as interval data to compute parametric statistics (Heagerty & Pepe, 1999; Oberg, Karszinia & Oberg, 1993; Royston, 2000; Salkind & Neil, 2014). Likert scales are preferred for research attitude survey reviews (Cook, Hepworth, Wall & Warr, 1981) and can be considered interval data from which mean, standard deviation, and other parametric statistical analyses can be computed (Holton & Burnett, 2005).

Research Question 2

What is the relationship between education and Internet marketing attitudes among native Chinese B2B purchasing agents?
Hypothesis 2 (H2)

*There is a positive association between B2B purchasing agents with advanced education such that those agents with higher levels of education show more positive attitudes towards Internet marketing communications than those agents with less education.*

Conclusions Hypothesis 2

The Spearman rho correlation test is not significant and does not support the hypothesis \((n = 156, r_s = -0.074, p = .359)\). The hypothesis is rejected: That is, there is not a significant association between B2B purchasing agents with advanced education such that those agents with higher levels of education hold more positive attitudes towards Internet marketing communications than those agents with less education.

Table 19. Spearman rho \((r_s)\) correlation matrix between Education and Aggregate Marketing Contact Attitude: Internet Channels \((n = 156, p < .05)\).

<table>
<thead>
<tr>
<th>Variable</th>
<th>Aggregate Marketing Contact Attitude: Internet Channels</th>
<th>p</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>1</td>
<td>-0.074</td>
<td>.359 Not significant</td>
</tr>
<tr>
<td>Aggregate Marketing Contact Attitude: Internet Channels</td>
<td>-0.074</td>
<td>1</td>
<td>.359 Not significant</td>
</tr>
</tbody>
</table>

*Values in bold are different from 0 with \(p < .05\)*

**H2 test approach.** As with age in Hypothesis 1, when education levels can be structured in equal intervals across the entire sample (e.g., K through 12), interval data can be used to compute parametric statistics. For this test, education includes the category “some college but no degree” and categories by degree type which may include a broad array of additional years of education after high school. The survey only asked for the
highest level degree earned, and students may earn multiple degrees. Therefore, education by highest degree earned is treated as ordinal data. Spearman’s rho is often used in sociology for surveys comparing the level of education and opinions and was selected and the analysis (Jonsson & Svingby, 2007). The education variable spanned six categories including:

<table>
<thead>
<tr>
<th>Categories</th>
<th>Frequencies</th>
<th>%</th>
<th>Total Years of Education including high school*</th>
</tr>
</thead>
<tbody>
<tr>
<td>High school</td>
<td>1</td>
<td>0.6</td>
<td>4</td>
</tr>
<tr>
<td>Some College but no degree</td>
<td>2</td>
<td>0.0</td>
<td>5-7</td>
</tr>
<tr>
<td>Associate Degree</td>
<td>0</td>
<td>1.3</td>
<td>6</td>
</tr>
<tr>
<td>Bachelor’s Degree</td>
<td>119</td>
<td>76.3</td>
<td>8</td>
</tr>
<tr>
<td>Master’s Degree</td>
<td>31</td>
<td>19.9</td>
<td>10</td>
</tr>
<tr>
<td>Doctorate or PhD</td>
<td>3</td>
<td>1.9</td>
<td>12-17</td>
</tr>
</tbody>
</table>

* Minimum expected total years representative estimate, not measured.

The Spearman rho indicated there is a very weak negative association between level of education and the Aggregate Marketing Contact Attitude: Internet Channels ($r_s = -0.074$, $p = .359$) but is not significant (Table 19). As such, no further assessment of relationships were pursued (e.g., linear regression).

**Research Question 3**

Is there a difference in marketing Internet communication attitudes between Chinese B2B purchasing agents who have prior occasional or frequent experience purchasing products or services from U.S. companies and those agents without such experience?
Hypothesis 3 (H3)

There is a difference between B2B purchasing agents with prior experience buying products/services from U.S. companies such that those with experience demonstrate more positive attitudes to accept Internet marketing communications from U.S. companies than agents without similar experience.

Conclusions Hypothesis 3

An Independent t-test indicates the variables for agents’ Internet contact attitudes with and without prior experience purchasing from U.S. companies are independent and a significant difference exists ($t = -2.576, p = .011$; Table 20).

Table 20. Independent samples t-test result for U.S. Buying Experience ($n = 71$) and No U.S. Buying Experience ($n = 59$) for the Aggregate Marketing Contact Attitude: Internet Channels ($p < .05$).

<table>
<thead>
<tr>
<th>Test Variables</th>
<th>Measure</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. Buying Experience, $n = 71$</td>
<td>t (Observed value)</td>
<td>-2.576</td>
</tr>
<tr>
<td>No U.S. Buying Experience, $n = 59$</td>
<td>DF</td>
<td>128</td>
</tr>
<tr>
<td></td>
<td>p-value</td>
<td>.011</td>
</tr>
<tr>
<td></td>
<td><strong>Significance</strong></td>
<td>Significant</td>
</tr>
</tbody>
</table>

H3 test approach. An independent sample t-test was conducted to determine whether a significant difference exists for the Aggregate Marketing Contact Attitude: Internet Channels between two groups – those agents with prior experience purchasing from U.S. companies and those without such experience. Respondents were asked to identify how often their company purchases from U.S. companies to create the two groups. Those agents who responded their companies purchase from U.S. companies
“frequently” or “often” represented one group (“U.S. Buying Experience”, n= 71, M = 2.192, SD = 0.459). Those agents who responded “rarely” or “never” represented the other group without U.S. buying experience (“No U.S. Buying Experience”, n= 59, M = 2.447, SD = 0.669). Agents who responded “Do Not Know” whether their company had prior experience were eliminated from this analysis.

Additional Analyses and Exploration

To enhance the understanding and discussion of survey sample results and relationships beyond the hypothesis testing, additional tests and compilations were completed for the primary categories of this research – age, education, and agents’ prior experience purchasing from U.S. companies. Although gender influence was not a focus of this research, one must anticipate a potential influence in survey results (Miles & King, 1998); therefore, the potential influence of gender was briefly explored. Finally, agents’ preferences were also compiled and explored.

Age

The association test of Hypothesis 1 found there were no statistically significant associations between age and Internet marketing attitudes. It did not distinguish between younger and older age groups. An independent samples t-test was conducted to test for a significant difference in the Aggregate Marketing Contact Attitude: Internet Channels for the three younger agent groups 21 to 35 years of age (n = 122) and the six groups 36 years of age and older (n=34). No significant difference was found.
Table 21. Independent t-test results for Age Groups and the Aggregate Marketing Contact Attitude: Internet Channels (n=156, p < .001).

**T-Test Variables**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Result</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Difference</td>
<td>-0.043</td>
<td></td>
</tr>
<tr>
<td>p-value</td>
<td></td>
<td></td>
</tr>
<tr>
<td>t (Observed value)</td>
<td>-0.377</td>
<td>Not Significant</td>
</tr>
<tr>
<td>DF</td>
<td>154</td>
<td></td>
</tr>
<tr>
<td>p-value</td>
<td>.706</td>
<td>Not Significant</td>
</tr>
</tbody>
</table>

Another goal was to explore the strength of any associations with age for each variable. A Pearson correlation was conducted as were linear regressions for Age and each of the five Internet marketing channels – company emails, emails from a company’s person, emails from a friend of the agent, webinars, and social media platforms (Table 22). The Pearson results indicate there is a weak negative association between Age and each of the Internet marketing channel variables, but none of them are significant (n=156, p > .079, range = > .079 < .909) and any correlations may be the result of a chance finding. The linear regressions were also not significant. As a result a multiple linear regression was considered but not conducted. In any event, the linear regressions indicated Age would represent less than 2% of the variation seen in any one Internet attitude variable.
Table 22. Pearson r correlation matrix for Age and Marketing Contact Attitude: All Internet Channels (n=156, p< .05).

<table>
<thead>
<tr>
<th>Variables</th>
<th>Age</th>
<th>Social Media</th>
<th>Company Email</th>
<th>Friend Email</th>
<th>Personal Email</th>
<th>Webinar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>1</td>
<td>-0.009</td>
<td>-0.141</td>
<td>-0.028</td>
<td>-0.026</td>
<td>-0.044</td>
</tr>
<tr>
<td>Social Media</td>
<td>-0.009</td>
<td>1</td>
<td>0.422</td>
<td>0.360</td>
<td>0.395</td>
<td>0.495</td>
</tr>
<tr>
<td>Company Email</td>
<td>-0.141</td>
<td>0.422</td>
<td>1</td>
<td>0.363</td>
<td>0.493</td>
<td>0.404</td>
</tr>
<tr>
<td>Friend Email</td>
<td>-0.028</td>
<td>0.360</td>
<td>0.363</td>
<td>1</td>
<td>0.554</td>
<td>0.592</td>
</tr>
<tr>
<td>Personal Email</td>
<td>-0.026</td>
<td>0.395</td>
<td>0.493</td>
<td>0.554</td>
<td>1</td>
<td>0.519</td>
</tr>
<tr>
<td>Webinar</td>
<td>-0.044</td>
<td>0.495</td>
<td>0.404</td>
<td>0.592</td>
<td>0.519</td>
<td>1</td>
</tr>
</tbody>
</table>

Values in bold are different from 0 with a significance level p < 0.05

Pearson r Results

A final research goal may have been to establish a predictive linear equation for the data set tested; however, predictive linear equations are generally not recommended for Likert and similarly valued attitude tests (Lovelace & Brickman, 2013). Knowing that a statistically confident positive or negative association exists between individuals and their attitudes is the focus of this exploration.

**Additional age insights.** There was no significant difference for the Aggregate Marketing Contact Attitude: Internet Channels between the age group 21 years of age to 35 and the age group 36 years of age and older; t = -0.377, p = .706 (Table 21). There was a weak negative association between age and each Internet marketing channel among the age groups, but it was not significant (Table 22).

**Education**

Although the Spearman association test conducted indicated no significant association between education level and Internet attitudes, it did not distinguish between any two groups of higher education and each marketing channel.
A Spearman rho correlation was conducted for Education and each of the five Internet marketing channels (Table 23). The Spearman results indicate there is also not a significant association between the level of education and any one of the Internet marketing channel variables (n=156, p >.231, range = >.231 < .973) and any correlations may be the result of a chance finding. Multipole linear regression analysis was considered, but not conducted as a result of the Spearman test results. Simple linear regressions were conducted but also not significant for any of the five Internet channels – company emails, emails from a company’s person, emails from a friend of the agent, webinars, and social media platforms. In any event, the linear regressions indicate level of Education would represent less than 1% of the variation seen in any one Internet attitude variable.

Table 23. Spearman rho correlation matrix for Education and Marketing Contact Attitude: All Internet Channels (n = 156, p < .05).

<table>
<thead>
<tr>
<th>Variables</th>
<th>Education</th>
<th>Company Email</th>
<th>Personal Email</th>
<th>Friend Email</th>
<th>Webinar</th>
<th>Social Media</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>1</td>
<td>-0.096</td>
<td>0.025</td>
<td>-0.048</td>
<td>-0.003</td>
<td>0.045</td>
</tr>
<tr>
<td>Company Email</td>
<td>-0.096</td>
<td>1</td>
<td>0.481</td>
<td>0.364</td>
<td>0.408</td>
<td>0.370</td>
</tr>
<tr>
<td>Personal Email</td>
<td>0.025</td>
<td>0.481</td>
<td>1</td>
<td>0.487</td>
<td>0.459</td>
<td>0.382</td>
</tr>
<tr>
<td>Friend Email</td>
<td>-0.048</td>
<td>0.364</td>
<td>0.487</td>
<td>1</td>
<td>0.505</td>
<td>0.321</td>
</tr>
<tr>
<td>Webinar</td>
<td>-0.003</td>
<td>0.408</td>
<td>0.459</td>
<td>0.505</td>
<td>1</td>
<td>0.444</td>
</tr>
<tr>
<td>Social Media</td>
<td>0.045</td>
<td>0.370</td>
<td>0.382</td>
<td>0.321</td>
<td>0.444</td>
<td>1</td>
</tr>
</tbody>
</table>

*Values in bold are different from 0 with a significance level p < 0.05*

To isolate and test education groups, an independent samples t-test was conducted to compare the Aggregate Marketing Contact Attitude: Internet Channels between two groups – an agent group with high school education through Bachelor degrees (attitude M = 2.359, SD = 0.531, n = 122) and an agent group with post graduate education of
Masters and Doctoral degrees (attitude M = 2.206, SD = 0.620, n = 34). The t-test results (Table 24) indicated there was no significant difference in attitudes between the two groups (t =1.432, p = .154).

Table 24. Independent t-test for two Education groups and Aggregate Marketing Contact Attitude: Internet Channels (n = 156).

<table>
<thead>
<tr>
<th>Test Variables</th>
<th>Dependent variable 1: High School through Bachelors Education,</th>
<th>Dependent variable 2: Post Graduate Masters through Doctorate, n = 34</th>
<th>Independent variable: Aggregate Marketing Contact Attitude: Internet Channels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measure</td>
<td>Result</td>
<td>Significance</td>
<td></td>
</tr>
<tr>
<td>t (Observed value)</td>
<td>1.432</td>
<td>Not Significant</td>
<td></td>
</tr>
<tr>
<td>DF</td>
<td>154</td>
<td></td>
<td></td>
</tr>
<tr>
<td>p-</td>
<td>.154</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Additional education insights. Spearman results indicate there is not a significant association between the level of education and any one of the individual Internet marketing channel variables. Even if significant, the R-squared indicates that level of education would represent less than 1% of the variation seen in any one Internet attitude variable. When placed into two groups –agents with high school education through Bachelor degrees and agents with post graduate degrees beyond Bachelor there also was no significant difference.

Agents’ U.S. Buying Experience

The independent t-tests established that those agents with prior occasional or frequent experience purchasing products from U.S. companies have a significantly more positive attitude toward the aggregate measure of Internet marketing channels; however,
this did not provide a detailed view of any one specific marketing channel for additional insights.

A Pearson’s correlation was conducted to determine whether a significant attitude relationship exists for traditional or Internet marketing channels between those agents with U.S. buying experience and those without such experience (Table 25).

Table 25. Pearson’s (r) correlation matrix between U.S. Buying Experience and No U.S. Buying Experience agent groups and Aggregate Marketing Contact Attitude: Internet Channels (p < .05, ).

<table>
<thead>
<tr>
<th>Correlation Variables</th>
<th>U.S. Buying Experience n=71</th>
<th>No U.S. Buying Experience n=59</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Marketing Contact Attitude: Internet Channels</td>
<td></td>
</tr>
<tr>
<td>Pearson Tests</td>
<td>Result</td>
<td>N</td>
</tr>
<tr>
<td>U.S. Buying Experience</td>
<td>0.248</td>
<td>71</td>
</tr>
<tr>
<td>Correlation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>p value</td>
<td>0.037</td>
<td></td>
</tr>
<tr>
<td>No U.S. Buying Experience</td>
<td>-0.016</td>
<td>59</td>
</tr>
<tr>
<td>Correlation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>p value</td>
<td>0.903</td>
<td></td>
</tr>
</tbody>
</table>

A Pearson correlation test was also conducted for each of the twelve Marketing Contact Attitudes to create a more granular view and explore potential underlying variable relationships not reflected in the aggregate measures. A multiple linear regression analysis was also considered. Those respondents who responded “Do Not Know” whether they or their company had prior experience were eliminated from this analysis.
Tables 26 and 27 present the Pearson r correlation and R-squared results for agents in the two groups – those With U.S. Buying Experience and those with No U.S. Buying Experience - correlated with the twelve variables. A significant positive relationship exists between the agents With U.S. Buying Experience and conference and phone call marketing channels (p < .05). No significant association exists between those agents with no prior experience and any one of the Internet marketing channels (p > .05). No additional linear regressions were conducted for these groups.
Table 26. Pearson correlation matrix and $R^2$ coefficients for U.S. Buying Experience and twelve Marketing Contact Attitudes (n=71).

### Pearson $r$ Correlations

<table>
<thead>
<tr>
<th>Variables</th>
<th>Did Buy U.S.</th>
<th>Friend</th>
<th>Trade Shows</th>
<th>Conference</th>
<th>Network Event</th>
<th>Phone Call</th>
<th>Personal Visit</th>
<th>Company Email</th>
<th>Personal Email</th>
<th>Friend Email</th>
<th>Webinar</th>
<th>Social Media</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did Buy U.S.</td>
<td>1</td>
<td>0.090</td>
<td>0.022</td>
<td>0.279</td>
<td>0.196</td>
<td>0.261</td>
<td>0.140</td>
<td>0.232</td>
<td>0.054</td>
<td>-0.204</td>
<td>-0.039</td>
<td>0.003</td>
</tr>
<tr>
<td>Friend</td>
<td>0.090</td>
<td>1</td>
<td>0.256</td>
<td>0.206</td>
<td>0.149</td>
<td>0.203</td>
<td>0.292</td>
<td>0.533</td>
<td>0.098</td>
<td>-0.082</td>
<td>0.061</td>
<td>0.004</td>
</tr>
<tr>
<td>Trade Shows</td>
<td>0.022</td>
<td>0.256</td>
<td>1</td>
<td>0.534</td>
<td>0.319</td>
<td>0.441</td>
<td>0.174</td>
<td>0.209</td>
<td>0.049</td>
<td>0.223</td>
<td>0.153</td>
<td>0.232</td>
</tr>
<tr>
<td>Conference</td>
<td>0.279</td>
<td>0.206</td>
<td>0.534</td>
<td>1</td>
<td>0.496</td>
<td>0.652</td>
<td>0.330</td>
<td>0.271</td>
<td>0.122</td>
<td>0.187</td>
<td>0.093</td>
<td>0.144</td>
</tr>
<tr>
<td>Network Event</td>
<td>0.196</td>
<td>0.149</td>
<td>0.319</td>
<td>0.496</td>
<td>1</td>
<td>0.481</td>
<td>0.356</td>
<td>0.340</td>
<td>0.111</td>
<td>0.275</td>
<td>0.059</td>
<td>0.099</td>
</tr>
<tr>
<td>Phone Call</td>
<td>0.261</td>
<td>0.283</td>
<td>0.441</td>
<td>0.632</td>
<td>0.481</td>
<td>1</td>
<td>0.597</td>
<td>0.272</td>
<td>0.126</td>
<td>0.201</td>
<td>0.117</td>
<td>0.237</td>
</tr>
<tr>
<td>Personal Visit</td>
<td>0.140</td>
<td>0.282</td>
<td>0.174</td>
<td>0.330</td>
<td>0.356</td>
<td>0.597</td>
<td>1</td>
<td>0.186</td>
<td>0.123</td>
<td>0.125</td>
<td>0.111</td>
<td>0.163</td>
</tr>
<tr>
<td>Direct Mail</td>
<td>0.252</td>
<td>0.353</td>
<td>0.209</td>
<td>0.271</td>
<td>0.340</td>
<td>0.272</td>
<td>0.128</td>
<td>1</td>
<td>0.468</td>
<td>0.063</td>
<td>-0.063</td>
<td>0.152</td>
</tr>
<tr>
<td>Company Email</td>
<td>0.094</td>
<td>0.098</td>
<td>0.049</td>
<td>0.122</td>
<td>0.111</td>
<td>0.126</td>
<td>0.123</td>
<td>0.498</td>
<td>1</td>
<td>0.457</td>
<td>0.264</td>
<td>0.389</td>
</tr>
<tr>
<td>Personal Email</td>
<td>-0.204</td>
<td>-0.002</td>
<td>0.223</td>
<td>0.187</td>
<td>0.275</td>
<td>0.201</td>
<td>0.125</td>
<td>0.083</td>
<td>0.457</td>
<td>1</td>
<td>0.506</td>
<td>0.425</td>
</tr>
<tr>
<td>Friend Email</td>
<td>-0.098</td>
<td>0.011</td>
<td>0.153</td>
<td>0.003</td>
<td>0.055</td>
<td>0.117</td>
<td>0.111</td>
<td>-0.093</td>
<td>0.264</td>
<td>0.506</td>
<td>1</td>
<td>0.610</td>
</tr>
<tr>
<td>Webinar</td>
<td>0.003</td>
<td>0.004</td>
<td>0.231</td>
<td>0.144</td>
<td>0.099</td>
<td>0.237</td>
<td>0.069</td>
<td>0.152</td>
<td>0.389</td>
<td>0.425</td>
<td>0.610</td>
<td>1</td>
</tr>
<tr>
<td>Social Media</td>
<td>-0.009</td>
<td>-0.029</td>
<td>0.181</td>
<td>0.032</td>
<td>0.265</td>
<td>0.199</td>
<td>0.069</td>
<td>0.252</td>
<td>0.304</td>
<td>0.377</td>
<td>0.371</td>
<td>0.595</td>
</tr>
</tbody>
</table>

Values in bold are different from 0 with $p < .05$

### $R^2$ Coefficients

<table>
<thead>
<tr>
<th>Variables</th>
<th>Did Buy U.S.</th>
<th>Friend</th>
<th>Trade Shows</th>
<th>Conference</th>
<th>Network Event</th>
<th>Phone Call</th>
<th>Personal Visit</th>
<th>Company Email</th>
<th>Personal Email</th>
<th>Friend Email</th>
<th>Webinar</th>
<th>Social Media</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did Buy U.S.</td>
<td>1</td>
<td>0.008</td>
<td>0.000</td>
<td>0.078</td>
<td>0.036</td>
<td>0.068</td>
<td>0.020</td>
<td>0.054</td>
<td>0.009</td>
<td>0.042</td>
<td>0.002</td>
<td>0.000</td>
</tr>
<tr>
<td>Friend</td>
<td>0.008</td>
<td>1</td>
<td>0.063</td>
<td>0.043</td>
<td>0.022</td>
<td>0.086</td>
<td>0.085</td>
<td>0.111</td>
<td>0.070</td>
<td>0.007</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>Trade Shows</td>
<td>0.000</td>
<td>0.045</td>
<td>1</td>
<td>0.274</td>
<td>0.102</td>
<td>0.194</td>
<td>0.030</td>
<td>0.044</td>
<td>0.002</td>
<td>0.050</td>
<td>0.023</td>
<td>0.054</td>
</tr>
<tr>
<td>Conference</td>
<td>0.078</td>
<td>0.043</td>
<td>0.274</td>
<td>1</td>
<td>0.146</td>
<td>0.400</td>
<td>0.102</td>
<td>0.074</td>
<td>0.015</td>
<td>0.053</td>
<td>0.000</td>
<td>0.021</td>
</tr>
<tr>
<td>Network Event</td>
<td>0.058</td>
<td>0.022</td>
<td>0.102</td>
<td>0.246</td>
<td>1</td>
<td>0.231</td>
<td>0.126</td>
<td>0.115</td>
<td>0.012</td>
<td>0.076</td>
<td>0.003</td>
<td>0.010</td>
</tr>
<tr>
<td>Phone Call</td>
<td>0.058</td>
<td>0.026</td>
<td>0.194</td>
<td>0.400</td>
<td>0.231</td>
<td>1</td>
<td>0.566</td>
<td>0.012</td>
<td>0.016</td>
<td>0.248</td>
<td>1</td>
<td>0.209</td>
</tr>
<tr>
<td>Personal Visit</td>
<td>0.020</td>
<td>0.005</td>
<td>0.030</td>
<td>0.102</td>
<td>0.126</td>
<td>0.356</td>
<td>1</td>
<td>0.094</td>
<td>0.015</td>
<td>0.016</td>
<td>0.012</td>
<td>0.005</td>
</tr>
<tr>
<td>Direct Mail</td>
<td>0.054</td>
<td>0.111</td>
<td>0.044</td>
<td>0.074</td>
<td>0.115</td>
<td>0.074</td>
<td>0.024</td>
<td>1</td>
<td>0.240</td>
<td>0.007</td>
<td>0.009</td>
<td>0.032</td>
</tr>
<tr>
<td>Company Email</td>
<td>0.009</td>
<td>0.010</td>
<td>0.002</td>
<td>0.015</td>
<td>0.012</td>
<td>0.016</td>
<td>0.015</td>
<td>0.248</td>
<td>1</td>
<td>0.209</td>
<td>0.070</td>
<td>0.151</td>
</tr>
<tr>
<td>Personal Email</td>
<td>0.042</td>
<td>0.077</td>
<td>0.023</td>
<td>0.000</td>
<td>0.003</td>
<td>0.057</td>
<td>0.017</td>
<td>0.002</td>
<td>0.009</td>
<td>0.070</td>
<td>0.255</td>
<td>0.081</td>
</tr>
<tr>
<td>Friend Email</td>
<td>0.002</td>
<td>0.007</td>
<td>0.023</td>
<td>0.000</td>
<td>0.003</td>
<td>0.012</td>
<td>0.012</td>
<td>0.009</td>
<td>0.070</td>
<td>0.255</td>
<td>1</td>
<td>0.373</td>
</tr>
<tr>
<td>Webinar</td>
<td>0.000</td>
<td>0.000</td>
<td>0.054</td>
<td>0.021</td>
<td>0.010</td>
<td>0.056</td>
<td>0.005</td>
<td>0.023</td>
<td>0.151</td>
<td>0.381</td>
<td>0.073</td>
<td>1</td>
</tr>
<tr>
<td>Social Media</td>
<td>0.000</td>
<td>0.003</td>
<td>0.033</td>
<td>0.001</td>
<td>0.070</td>
<td>0.040</td>
<td>0.005</td>
<td>0.063</td>
<td>0.062</td>
<td>0.142</td>
<td>0.138</td>
<td>0.264</td>
</tr>
</tbody>
</table>
Table 2. Pearson correlation matrix for No U.S. Buying Experience and twelve Marketing Contact Attitudes (n=59).

<table>
<thead>
<tr>
<th>Variables</th>
<th>Did Not Buy U.S.</th>
<th>Friend</th>
<th>Trade Shows</th>
<th>Conference</th>
<th>Network Event</th>
<th>Phone Call</th>
<th>Personal Visit</th>
<th>Direct Mail</th>
<th>Company Email</th>
<th>Personal Email</th>
<th>Friend Email</th>
<th>Webinar</th>
<th>Social Media</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did Not Buy U.S.</td>
<td>1</td>
<td>0.060</td>
<td>-0.130</td>
<td>0.082</td>
<td>-0.079</td>
<td>0.144</td>
<td>0.090</td>
<td>0.010</td>
<td>0.120</td>
<td>0.096</td>
<td>0.077</td>
<td>-0.131</td>
<td>-0.091</td>
</tr>
<tr>
<td>Friend</td>
<td></td>
<td>1</td>
<td>0.501</td>
<td>0.435</td>
<td>0.462</td>
<td>0.132</td>
<td>0.411</td>
<td>0.441</td>
<td>0.482</td>
<td>0.253</td>
<td>0.313</td>
<td>0.198</td>
<td>0.345</td>
</tr>
<tr>
<td>Trade Shows</td>
<td>-0.130</td>
<td>1</td>
<td>0.769</td>
<td>0.763</td>
<td>0.424</td>
<td>0.593</td>
<td>0.525</td>
<td>0.668</td>
<td>0.478</td>
<td>0.371</td>
<td>0.573</td>
<td>0.439</td>
<td></td>
</tr>
<tr>
<td>Conference</td>
<td>0.082</td>
<td>0.435</td>
<td>0.765</td>
<td>1</td>
<td>0.761</td>
<td>0.546</td>
<td>0.400</td>
<td>0.550</td>
<td>0.628</td>
<td>0.513</td>
<td>0.398</td>
<td>0.652</td>
<td>0.454</td>
</tr>
<tr>
<td>Network Event</td>
<td>-0.079</td>
<td>0.452</td>
<td>0.753</td>
<td>0.761</td>
<td>1</td>
<td>0.473</td>
<td>0.401</td>
<td>0.511</td>
<td>0.563</td>
<td>0.485</td>
<td>0.518</td>
<td>0.595</td>
<td>0.504</td>
</tr>
<tr>
<td>Phone Call</td>
<td>0.144</td>
<td>0.411</td>
<td>0.583</td>
<td>0.400</td>
<td>0.401</td>
<td>0.471</td>
<td>1</td>
<td>0.590</td>
<td>0.758</td>
<td>0.349</td>
<td>0.289</td>
<td>0.266</td>
<td>0.353</td>
</tr>
<tr>
<td>Personal Visit</td>
<td></td>
<td>0.132</td>
<td>0.424</td>
<td>0.549</td>
<td>0.473</td>
<td>1</td>
<td>0.471</td>
<td>0.575</td>
<td>0.511</td>
<td>0.429</td>
<td>0.399</td>
<td>0.548</td>
<td>0.275</td>
</tr>
<tr>
<td>Direct Mail</td>
<td>0.010</td>
<td>0.441</td>
<td>0.525</td>
<td>0.558</td>
<td>0.511</td>
<td>0.575</td>
<td>0.590</td>
<td>1</td>
<td>0.654</td>
<td>0.563</td>
<td>0.633</td>
<td>0.511</td>
<td>0.553</td>
</tr>
<tr>
<td>Company Email</td>
<td>0.129</td>
<td>0.632</td>
<td>0.660</td>
<td>0.628</td>
<td>0.563</td>
<td>0.511</td>
<td>0.758</td>
<td>0.654</td>
<td>1</td>
<td>0.590</td>
<td>0.440</td>
<td>0.385</td>
<td>0.457</td>
</tr>
<tr>
<td>Personal Email</td>
<td>0.086</td>
<td>0.253</td>
<td>0.478</td>
<td>0.513</td>
<td>0.485</td>
<td>0.429</td>
<td>0.349</td>
<td>0.583</td>
<td>0.508</td>
<td>1</td>
<td>0.396</td>
<td>0.533</td>
<td>0.417</td>
</tr>
<tr>
<td>Friend Email</td>
<td>0.077</td>
<td>0.323</td>
<td>0.371</td>
<td>0.388</td>
<td>0.319</td>
<td>0.399</td>
<td>0.289</td>
<td>0.633</td>
<td>0.440</td>
<td>0.566</td>
<td>1</td>
<td>0.598</td>
<td>0.430</td>
</tr>
<tr>
<td>Webinar</td>
<td>-0.131</td>
<td>0.198</td>
<td>0.573</td>
<td>0.662</td>
<td>0.595</td>
<td>0.543</td>
<td>0.286</td>
<td>0.551</td>
<td>0.395</td>
<td>0.533</td>
<td>0.598</td>
<td>1</td>
<td>0.434</td>
</tr>
<tr>
<td>Social Media</td>
<td>-0.091</td>
<td>0.348</td>
<td>0.489</td>
<td>0.454</td>
<td>0.504</td>
<td>0.275</td>
<td>0.353</td>
<td>0.535</td>
<td>0.467</td>
<td>0.417</td>
<td>0.430</td>
<td>0.454</td>
<td>1</td>
</tr>
</tbody>
</table>

Values in bold are different from 0 with p < .05

Additional U.S. buying experience insights. The Pearson correlation with aggregate Internet attitude was significant for agents with prior U.S. buying experience (r = .248, p = .037), but not for agents without such experience (r = -0.016, p = .903). A significant positive relationship exists between those agents with prior U.S. purchasing experience and both conference and phone call marketing channels (p < .05), but the R-squared indicates this would represent less than 8% of any such variation (conference = .078, phone call = .068).

Gender

Anticipating a potential influence of gender in the survey sample and results for Internet use or attitudes (Miles & King, 1998), the survey sample was first reviewed for gender distribution by age (Figure 12). Both genders fit the general normal survey distribution across all ages.
Next, the survey sample was described for Internet use and attitudes. Although Internet use worldwide and in China is typically 50% male and 50% female (Wastlund, Norlander & Archer, 2001) it may not necessarily reflect each gender’s self-perceived comfort and skill using the Internet. Gender data was tabulated for comfort and skill using the Internet; 93% of males agree or strongly agree they are comfortable and good at using the Internet compared to 87% of females (Table 28).

Table 28. Aggregate measure for comfort and skill using Internet for company and product research by gender (n=156, n male=94, n female=62).

<table>
<thead>
<tr>
<th>Gender</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Disagree</th>
<th>Cumulative Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Count</td>
<td>Percent</td>
<td>Count</td>
<td>Percent</td>
<td>Count</td>
</tr>
<tr>
<td>Male</td>
<td>29</td>
<td>69%</td>
<td>58</td>
<td>59%</td>
<td>6</td>
</tr>
<tr>
<td>Female</td>
<td>13</td>
<td>31%</td>
<td>41</td>
<td>41%</td>
<td>7</td>
</tr>
<tr>
<td>Grand Total</td>
<td>42.0</td>
<td>100%</td>
<td>99.0</td>
<td>100%</td>
<td>13.0</td>
</tr>
</tbody>
</table>

Percent by Gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Disagree</th>
<th>Cumulative Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Count</td>
<td>Percent</td>
<td>Count</td>
<td>Percent</td>
<td>Count</td>
</tr>
<tr>
<td>Male</td>
<td>31%</td>
<td>62%</td>
<td>6%</td>
<td>1%</td>
<td>100%</td>
</tr>
<tr>
<td>Female</td>
<td>21%</td>
<td>66%</td>
<td>11%</td>
<td>2%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Cumulative Total

<table>
<thead>
<tr>
<th>Gender</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Disagree</th>
<th>Cumulative Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>31%</td>
<td>93%</td>
<td>99%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Female</td>
<td>21%</td>
<td>87%</td>
<td>98%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Note: Aggregate measure is the mean of the means for survey questions 9 and 10.

Finally, results were compared for male and female attitudes toward traditional and Internet product research and marketing channels although no correlation analysis was conducted (Figure 13).
Gender insights. Respondents’ gender appears normally distributed by age within the survey sample. Gender differences in self-perceived Internet comfort and skill do not appear to vary greatly. Although significance was not established, females may hold more negative attitudes toward product searches in both traditional and Internet channels and marketing solicitations through either traditional or Internet channels.

Marketing Solicitation Contact Attitudes

Respondents were asked twelve survey questions responding to the general question, “Indicate whether you agree or disagree with the following statements about yourself: When you are first approached by a company to purchase their products or
services, indicate how you like to be introduced” (Strongly Agree = 1 to Strongly Disagree = 5). Each statement addressed traditional or Internet based marketing channels (Table 29).
Table 29. Solicitation preference attitudes for traditional and Internet marketing channels.

<table>
<thead>
<tr>
<th>Marketing Channel</th>
<th>Count</th>
<th>%</th>
<th>Count</th>
<th>%</th>
<th>Count</th>
<th>%</th>
<th>Count</th>
<th>%</th>
<th>Count</th>
<th>%</th>
<th>Grand Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Through a Friend</td>
<td>29</td>
<td>18.6%</td>
<td>105</td>
<td>67.3%</td>
<td>20</td>
<td>12.8%</td>
<td>1</td>
<td>0.6%</td>
<td>1</td>
<td>0.6%</td>
<td>156</td>
</tr>
<tr>
<td>By a Personal Visit</td>
<td>8</td>
<td>5.1%</td>
<td>54</td>
<td>34.6%</td>
<td>59</td>
<td>37.8%</td>
<td>25</td>
<td>16.0%</td>
<td>10</td>
<td>6.6%</td>
<td>156</td>
</tr>
<tr>
<td>At a Networking Event</td>
<td>8</td>
<td>5.1%</td>
<td>94</td>
<td>60.3%</td>
<td>47</td>
<td>30.1%</td>
<td>6</td>
<td>3.8%</td>
<td>1</td>
<td>0.6%</td>
<td>156</td>
</tr>
<tr>
<td>At a Conference</td>
<td>10</td>
<td>6.4%</td>
<td>91</td>
<td>59.6%</td>
<td>46</td>
<td>29.5%</td>
<td>5</td>
<td>3.2%</td>
<td>2</td>
<td>1.3%</td>
<td>156</td>
</tr>
<tr>
<td>At a Trade Show</td>
<td>10</td>
<td>6.4%</td>
<td>85</td>
<td>54.5%</td>
<td>49</td>
<td>31.4%</td>
<td>10</td>
<td>6.4%</td>
<td>2</td>
<td>1.3%</td>
<td>156</td>
</tr>
<tr>
<td>By a Phone Call</td>
<td>11</td>
<td>7.1%</td>
<td>75</td>
<td>48.1%</td>
<td>44</td>
<td>28.2%</td>
<td>23</td>
<td>14.7%</td>
<td>3</td>
<td>1.9%</td>
<td>156</td>
</tr>
<tr>
<td>By Direct Mail</td>
<td>14</td>
<td>9.0%</td>
<td>90</td>
<td>57.7%</td>
<td>44</td>
<td>28.2%</td>
<td>5</td>
<td>3.2%</td>
<td>3</td>
<td>1.9%</td>
<td>156</td>
</tr>
<tr>
<td>Internet</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>By a Friend’s Email</td>
<td>15</td>
<td>9.6%</td>
<td>94</td>
<td>60.3%</td>
<td>38</td>
<td>24.4%</td>
<td>4</td>
<td>2.6%</td>
<td>5</td>
<td>3.2%</td>
<td>156</td>
</tr>
<tr>
<td>By a Personal Email from a Company Person</td>
<td>8</td>
<td>5.1%</td>
<td>54</td>
<td>34.6%</td>
<td>59</td>
<td>37.8%</td>
<td>25</td>
<td>16.0%</td>
<td>10</td>
<td>6.4%</td>
<td>156</td>
</tr>
<tr>
<td>By a Company Email</td>
<td>15</td>
<td>9.6%</td>
<td>81</td>
<td>51.9%</td>
<td>46</td>
<td>29.5%</td>
<td>11</td>
<td>7.1%</td>
<td>3</td>
<td>1.9%</td>
<td>156</td>
</tr>
<tr>
<td>Through a Social Media Platform</td>
<td>15</td>
<td>9.6%</td>
<td>78</td>
<td>50.0%</td>
<td>47</td>
<td>30.1%</td>
<td>13</td>
<td>8.3%</td>
<td>3</td>
<td>1.9%</td>
<td>156</td>
</tr>
<tr>
<td>Through a Webinar</td>
<td>11</td>
<td>7.1%</td>
<td>93</td>
<td>59.6%</td>
<td>37</td>
<td>23.7%</td>
<td>10</td>
<td>6.4%</td>
<td>5</td>
<td>3.2%</td>
<td>156</td>
</tr>
<tr>
<td></td>
<td>154</td>
<td>8.2%</td>
<td>996</td>
<td>53.2%</td>
<td>536</td>
<td>28.6%</td>
<td>138</td>
<td>7.4%</td>
<td>48</td>
<td>2.6%</td>
<td>1872</td>
</tr>
</tbody>
</table>

This data was then ranked by positive or negative preferences without distinguishing between traditional or Internet channels (Table 30).

**Marketing solicitation contact attitude insights.** The results provide a view of purchasing agents’ marketing channel preferences, both positive and negative, for traditional and Internet marketing channels, as well as in rank order without distinguishing between channels.
Table 30. Ranked solicitation preference attitudes for traditional and Internet marketing channels (n=156).

<table>
<thead>
<tr>
<th>Marketing Channel</th>
<th>Positive Attitude</th>
<th>Negative Attitude</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Count</td>
<td>%</td>
</tr>
<tr>
<td>Through a Friend</td>
<td>134</td>
<td>11.7%</td>
</tr>
<tr>
<td>By a Friend’s Email</td>
<td>109</td>
<td>9.5%</td>
</tr>
<tr>
<td>By Direct Mail</td>
<td>104</td>
<td>9.0%</td>
</tr>
<tr>
<td>Through a Webinar</td>
<td>104</td>
<td>9.0%</td>
</tr>
<tr>
<td>At a Conference</td>
<td>103</td>
<td>8.8%</td>
</tr>
<tr>
<td>At a Networking Event</td>
<td>102</td>
<td>8.9%</td>
</tr>
<tr>
<td>By a Company Email</td>
<td>96</td>
<td>8.3%</td>
</tr>
<tr>
<td>At a Trade Show</td>
<td>95</td>
<td>8.3%</td>
</tr>
<tr>
<td>Through a Social Media Platform</td>
<td>93</td>
<td>8.1%</td>
</tr>
<tr>
<td>By a Phone Call</td>
<td>86</td>
<td>7.5%</td>
</tr>
<tr>
<td>By a Personal Visit</td>
<td>62</td>
<td>5.4%</td>
</tr>
<tr>
<td>By a Personal Email from Company Person</td>
<td>62</td>
<td>5.4%</td>
</tr>
</tbody>
</table>

Note: Aggregated data so total count does not equal 156. Percentages are relative to total responses.

Factor Analysis

Correlation and linear regression analyses both test statistical significance for variable relationships. In socio-psychological explorations and self-reporting surveys such as this study, a hidden nominal variable may exist such as an individual respondent – or group of respondents - who keep two variable measurements paired. Additionally, confounding variables may exist that cannot be identified, finitely defined, or controlled as in other explorations and quantitative analyses.

Factor analysis has been broadly used in academic studies for the last few decades, providing insights in education and psychology and is considered an important method to
interpret self-reporting surveys (Pett, Lackey, & Sullivan, 2003; Williams, Brown & Onsman, 2012). It is a multivariate procedure with many uses, three of which apply in this analysis:

- to reduce a large number of variables into a more manageable set of factors or variables;
- to explore contributions to variance of latent underlying factors within the survey dataset;
- to test the construct validity for self-reporting survey scales and identify any variable collinearity where two or more variables correlate.

Factor analysis is especially valuable in inferential statistics such that researchers can provide actionable recommendations beyond the tested hypotheses, one of the intents of this study (Creswell, 2009; Dillman, Smyth, & Christian, 2009; Newton & Rudestam, 1999; Salkind, 2014; Santos, 1999).

McDonald (2009) recommends that researchers conduct correlation tests first to identify associations and determine the strength of any such associations, then combine these results with linear regression to provide predictive analyses, if predictive results are desired. The researcher must then interpret the factor results, defining those factor categories that taken together explain the majority of variable responses and reflect the research conceptual intent.

An exploratory factor analysis was first completed to first examine the datasets, and secondly, to test the proposed reduction of variables to aggregated attitude data for hypothesis testing in this study. The survey sample met the first two factor analysis criteria – the total sample was greater than one hundred and each category had more than five responses; therefore, twenty-one variables were subjected to factor analysis.
As a result, three aggregate factor categories were selected, represented by:

- **Internet Comfort and Skill.** Respondent is comfortable and skilled using the Internet: Strongly Agree = 1 to Strongly Disagree = 5; Questions 9 and 10.

- **Search Attitude using Traditional or Internet Sources.** When first interested in buying a new product or service from another company, respondents use traditional or Internet sources: Always = 1 to Never = 5; Traditional = Questions 16.1 and 16.4 through 16.7 and Internet = Questions 16.2, 16.3, and 16.8 through 16.10.

- **Marketing Solicitation Attitudes: Traditional or Internet Contact Channels.** Each respondent indicated his/her comfort with each method when first solicited by a B2B company: Strongly Agree = 1 to Strongly Disagree = 5. Traditional channels are represented by questions 17.1 through 17.7 and Internet channels by questions 17.8 through 17.12.

**Conclusions for Factor Analysis**

Results from the exploratory factor analysis and varimax rotations confirm that reducing the number of variables for analysis to aggregated variables was appropriate. This included the use of the aggregate means for search attitudes and marketing contact attitudes for both traditional and Internet channels. This approach was confirmed with factor analyses and is discussed in the following sections (Williams, Brown & Onsman, 2012).

As seen in hypothesis testing, however, these reduced factors may not necessarily provide sufficient detailed granularity for additional insights into any specific attitudes or channel options. As a result, additional exploratory analyses were conducted.
Factor Analysis Approach

The initial factor analysis on all variables indicated the dataset could be reduced to key factors. Besides required sample sizes, an additional consideration is the n:p ratio where n = survey responses and p = number of variables. In this study, the n:p ratio for this survey data is 156:21 = 7.43. Studies by Hogarty et al. (2003) found that both high and low levels (<3, 10) of the n:p ratio can achieve statistically valid factors across the variables examined (Pearson & Mundform, 2010). Data from questions 18 and 19 were determined inappropriate for factor analysis as scored values are not scaled.

As a result, four factors were selected including:

- age,
- education,
- respondents’ level of Internet use, and
- gender

Given the descriptive analysis for mean aggregate data (Tables 3, 5 and 6) and the results in the varimax rotation (Table 33), the aggregated mean data was used. For example, two survey questions ask a) respondent’s comfort using the Internet for researching companies and products and b) respondent’s perceived skill using the Internet for researching companies and products. The resulting aggregate mean would be the formula \((\frac{Ma + Mb}{\text{number of questions}})\). Using this example the aggregate mean is \((1.84+1.81)/2 = 1.824\). As a result, an additional five aggregate factors were also included represented by:

- respondents’ perceived comfort and skill using the Internet,
- search attitude using traditional channels,
CHINESE BUYERS’ DIGITAL B2B MARKETING PREFERENCES

- search attitude using Internet channels,
- aggregate attitude to marketing contact through traditional channels, and
- aggregate attitude to marketing contact through Internet channels.

An exploratory factor analysis (EFA) was completed to identify possible underlying variable factors without any preconceived structure imposed (Child, 1990). EFA provides the potential to reduce the number of variables such as the aggregated datasets used in this study for statistical tests.

This analysis produced Kaiser-Meyer-Olkin (KMO) test measures and Eigenvalues. A varimax rotation was completed to search for key factors.

**Factor Analysis of All Variables**

**Kaiser-Meyer-Olkin (KMO) test and Eigenvalues.** KMO tests sampling adequacy and provides results between 0 and 1. Results between 0.5 and 1.0 indicate that factor analysis is an appropriate application. Results below 0.5 indicate that factor analysis may not be appropriate and/or the extracted factors do not explain a significant amount of the dataset variance. With the exception of the variable for education (.419), the resulting measures are all greater than 0.5 and less than 1.0 and KMO = .841 indicating the dataset is appropriate for factor analysis (Table 31).
Table 31. Kaiser-Meyer-Olkin measure of sampling adequacy, all variables (n=156, p<.05).

<table>
<thead>
<tr>
<th>Variable</th>
<th>KMO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>0.562</td>
</tr>
<tr>
<td>Age</td>
<td>0.552</td>
</tr>
<tr>
<td>Education</td>
<td>0.419</td>
</tr>
<tr>
<td>Internet Hours</td>
<td>0.682</td>
</tr>
<tr>
<td>Friend</td>
<td>0.888</td>
</tr>
<tr>
<td>Supplier Website</td>
<td>0.756</td>
</tr>
<tr>
<td>Search Engines</td>
<td>0.803</td>
</tr>
<tr>
<td>Ads</td>
<td>0.874</td>
</tr>
<tr>
<td>Articles</td>
<td>0.872</td>
</tr>
<tr>
<td>Conferences</td>
<td>0.815</td>
</tr>
<tr>
<td>Trade Shows</td>
<td>0.912</td>
</tr>
<tr>
<td>E-commerce</td>
<td>0.686</td>
</tr>
<tr>
<td>Social Media</td>
<td>0.782</td>
</tr>
<tr>
<td>Webinars</td>
<td>0.929</td>
</tr>
<tr>
<td>Trade Shows</td>
<td>0.867</td>
</tr>
<tr>
<td>Conference</td>
<td>0.882</td>
</tr>
<tr>
<td>Network Event</td>
<td>0.875</td>
</tr>
<tr>
<td>Phone Call</td>
<td>0.884</td>
</tr>
<tr>
<td>Personal Visit</td>
<td>0.831</td>
</tr>
<tr>
<td>Direct Mail</td>
<td>0.886</td>
</tr>
<tr>
<td>Company Email</td>
<td>0.860</td>
</tr>
<tr>
<td>Personal Email</td>
<td>0.908</td>
</tr>
<tr>
<td>Friend Email</td>
<td>0.784</td>
</tr>
<tr>
<td>Webinar</td>
<td>0.823</td>
</tr>
<tr>
<td>Social Media</td>
<td>0.882</td>
</tr>
</tbody>
</table>

Eigenvalues greater than 1.0 identify any significance variance explained by each of the 21 variables. With thirteen variables 56.2% of the variability remains and 51.0% with seven factors (Table 32).
Table 32. Eigenvalue measures for significant variance, all variables (n=156, p<.05).

<table>
<thead>
<tr>
<th>Variables</th>
<th>Eigenvalue</th>
<th>Variability %</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>F1</td>
<td>7.385</td>
<td>28.404</td>
<td>28.404</td>
</tr>
<tr>
<td>F2</td>
<td>1.393</td>
<td>5.359</td>
<td>33.763</td>
</tr>
<tr>
<td>F3</td>
<td>1.240</td>
<td>4.770</td>
<td>38.533</td>
</tr>
<tr>
<td>F4</td>
<td>1.175</td>
<td>4.518</td>
<td>43.051</td>
</tr>
<tr>
<td>F5</td>
<td>0.780</td>
<td>3.002</td>
<td>46.053</td>
</tr>
<tr>
<td>F6</td>
<td>0.656</td>
<td>2.523</td>
<td>48.576</td>
</tr>
<tr>
<td>F7</td>
<td>0.633</td>
<td>2.433</td>
<td>51.009</td>
</tr>
<tr>
<td>F8</td>
<td>0.323</td>
<td>1.240</td>
<td>52.249</td>
</tr>
<tr>
<td>F9</td>
<td>0.268</td>
<td>1.029</td>
<td>53.278</td>
</tr>
<tr>
<td>F10</td>
<td>0.233</td>
<td>0.894</td>
<td>54.173</td>
</tr>
<tr>
<td>F11</td>
<td>0.212</td>
<td>0.815</td>
<td>54.988</td>
</tr>
<tr>
<td>F12</td>
<td>0.173</td>
<td>0.665</td>
<td>55.653</td>
</tr>
<tr>
<td>F13</td>
<td>0.140</td>
<td>0.538</td>
<td>56.191</td>
</tr>
<tr>
<td>F14</td>
<td>0.080</td>
<td>0.306</td>
<td>56.497</td>
</tr>
<tr>
<td>F15</td>
<td>0.057</td>
<td>0.220</td>
<td>56.717</td>
</tr>
<tr>
<td>F16</td>
<td>0.025</td>
<td>0.098</td>
<td>56.815</td>
</tr>
</tbody>
</table>

**Varimax rotation.** A varimax rotation was completed. Five factors (D1 to D5) were identified, each with differing relationships to variables (Table 33). The first factor, D1, is most positively related to contact preference attitudes for Friends, Personal Visits, Networking Events, Conferences, Trade Shows, and Phone Calls. Factor D2 is most positively related to Internet Hours and Internet Resource searches suggesting that those respondents who use the Internet more frequently are more inclined to influence the use of Internet resources. Factor D3 is most negatively related to Age, Education, and Supplier Websites, suggesting that older respondents and those with higher education are more likely to utilize supplier websites. D4 indicates few strong relationships. D5 indicates a positive relationship between Gender and the use of Traditional Resources and less personal Webinars. Additional correlation analysis would be required to determine whether one or both genders demonstrate this relationship, and gender differences were not the focus of this study.
Table 33. Varimax rotation for key factors, all variables (n=156, p<.05).

<table>
<thead>
<tr>
<th>Variable</th>
<th>D1</th>
<th>D2</th>
<th>D3</th>
<th>D4</th>
<th>D5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>0.044</td>
<td>-</td>
<td>0.017</td>
<td>-0.071</td>
<td>0.21</td>
</tr>
<tr>
<td>Age</td>
<td>0.018</td>
<td>0.081</td>
<td>-0.058</td>
<td>-0.351</td>
<td>-</td>
</tr>
<tr>
<td>Education</td>
<td>-0.112</td>
<td>-</td>
<td>0.029</td>
<td>-0.362</td>
<td>0.108</td>
</tr>
<tr>
<td>Internet Hours</td>
<td>0.110</td>
<td>0.29</td>
<td>-0.099</td>
<td>0.109</td>
<td>-</td>
</tr>
</tbody>
</table>

**Research Sources**

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Friend</td>
<td>0.224</td>
<td>0.30</td>
<td>0.036</td>
<td>-0.040</td>
<td>0.238</td>
</tr>
<tr>
<td>Ads</td>
<td>0.135</td>
<td>0.304</td>
<td>0.156</td>
<td>0.170</td>
<td>0.54</td>
</tr>
<tr>
<td>Articles</td>
<td>0.083</td>
<td>0.150</td>
<td>0.234</td>
<td>0.011</td>
<td>0.61</td>
</tr>
<tr>
<td>Conferences</td>
<td>0.162</td>
<td>-</td>
<td>0.112</td>
<td>0.075</td>
<td>0.74</td>
</tr>
<tr>
<td>Trade Shows</td>
<td>0.243</td>
<td>0.205</td>
<td>0.207</td>
<td>0.079</td>
<td>0.46</td>
</tr>
</tbody>
</table>

**Internet Sources**

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Supplier Website</td>
<td>0.055</td>
<td>0.456</td>
<td>0.093</td>
<td>0.628</td>
<td>0.059</td>
</tr>
<tr>
<td>Search Engines</td>
<td>-0.023</td>
<td>0.65</td>
<td>0.248</td>
<td>0.227</td>
<td>0.195</td>
</tr>
<tr>
<td>E-commerce</td>
<td>0.014</td>
<td>0.68</td>
<td>0.321</td>
<td>-0.351</td>
<td>0.115</td>
</tr>
<tr>
<td>Social Media</td>
<td>0.273</td>
<td>0.51</td>
<td>0.186</td>
<td>-0.128</td>
<td>0.338</td>
</tr>
<tr>
<td>Webinars</td>
<td>0.391</td>
<td>0.104</td>
<td>0.240</td>
<td>0.028</td>
<td>0.54</td>
</tr>
</tbody>
</table>

**Contact Preference**

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Friend</td>
<td></td>
<td></td>
<td>survey</td>
<td>0.412</td>
<td>0.128</td>
</tr>
<tr>
<td>Personal Visit</td>
<td></td>
<td></td>
<td>0.671</td>
<td>0.102</td>
<td>0.135</td>
</tr>
<tr>
<td>Networking Event</td>
<td></td>
<td></td>
<td>0.500</td>
<td>0.184</td>
<td>0.347</td>
</tr>
<tr>
<td>Conference</td>
<td></td>
<td></td>
<td>0.635</td>
<td>0.126</td>
<td>0.258</td>
</tr>
<tr>
<td>Trade Shows</td>
<td></td>
<td></td>
<td>0.658</td>
<td>0.065</td>
<td>0.342</td>
</tr>
<tr>
<td>Phone Call</td>
<td></td>
<td></td>
<td>0.446</td>
<td>0.231</td>
<td>0.311</td>
</tr>
<tr>
<td>Direct Mail</td>
<td></td>
<td></td>
<td>0.317</td>
<td>0.268</td>
<td>0.508</td>
</tr>
</tbody>
</table>

**Internet Sources**

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Friend, Email</td>
<td>0.054</td>
<td>0.140</td>
<td>0.761</td>
<td>0.020</td>
<td>0.054</td>
</tr>
<tr>
<td>Company, Person’s Email</td>
<td>0.197</td>
<td>0.071</td>
<td>0.661</td>
<td>-0.027</td>
<td>0.287</td>
</tr>
<tr>
<td>Company, Email</td>
<td>0.291</td>
<td>0.024</td>
<td>0.535</td>
<td>0.316</td>
<td>0.220</td>
</tr>
<tr>
<td>Webinar</td>
<td>0.244</td>
<td>0.056</td>
<td>0.668</td>
<td>0.018</td>
<td>0.172</td>
</tr>
<tr>
<td>Social Media</td>
<td>0.138</td>
<td>0.176</td>
<td>0.568</td>
<td>0.008</td>
<td>0.112</td>
</tr>
</tbody>
</table>

Note: Values in bold correspond for each variable to the factor for which the squared cosine is the largest.

**Factor Analysis on Nine Reduced Factors**

To test whether this reduced dataset is appropriate for this study’s analyses, these nine factors were tested using Bartlett’s test, Kaiser-Meyer-Olkin (KMO) test, Eigenvalues, Cronbach’s alpha, and an additional varimax rotation.
**Bartlett’s test.** This test approximates a chi-square and tests for whether the data is appropriate for factor analysis. Test values of less than .05 ($p < .05$) indicate a high probability that the dataset is appropriate for factor analysis while results greater than 0.1 ($p > 0.10$) indicate the dataset is inappropriate. The resulting Bartlett’s value is $< 0.0001$ ($p<.01$) and the dataset is deemed appropriate for this test (Table 34).

Table 34. Bartlett’s test for sphericity ($n = 156$, $p < .05$).

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>156</td>
<td>1.000</td>
<td>2.000</td>
<td>1.397</td>
<td>0.491</td>
</tr>
<tr>
<td>Age</td>
<td>156</td>
<td>1.000</td>
<td>7.000</td>
<td>2.724</td>
<td>1.258</td>
</tr>
<tr>
<td>Education</td>
<td>156</td>
<td>1.000</td>
<td>6.000</td>
<td>4.192</td>
<td>0.592</td>
</tr>
<tr>
<td>Internet Hours</td>
<td>156</td>
<td>1.000</td>
<td>3.000</td>
<td>1.545</td>
<td>0.712</td>
</tr>
<tr>
<td>Internet Comfort &amp; Skill</td>
<td>156</td>
<td>1.000</td>
<td>3.000</td>
<td>1.824</td>
<td>0.520</td>
</tr>
</tbody>
</table>

**Search Attitudes**
- Traditional Channels: 156
  - Minimum: 1.000
  - Maximum: 4.400
  - Mean: 2.600
  - Std. deviation: 0.613
- Internet Channels: 156
  - Minimum: 1.000
  - Maximum: 5.000
  - Mean: 2.367
  - Std. deviation: 0.561

**Contact Attitudes**
- Traditional Channels: 156
  - Minimum: 1.000
  - Maximum: 5.000
  - Mean: 2.325
  - Std. deviation: 0.547
- Internet Channel: 156
  - Minimum: 1.000
  - Maximum: 5.000
  - Mean: 2.471
  - Std. deviation: 0.649

**Kaiser-Meyer-Olkin (KMO) test and Eigenvalues.** The resulting KMO measures (Table 35) are all greater than 0.5 with the exception of education (.426) and Internet use hours (.473) with total KMO= .748 indicating the limited dataset is appropriate for factor analysis.
Table 35. Kaiser-Meyer-Olkin measure of sampling adequacy, nine variables (n=156, p<.05).

<table>
<thead>
<tr>
<th>Variable</th>
<th>KMO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>0.590</td>
</tr>
<tr>
<td>Age</td>
<td>0.604</td>
</tr>
<tr>
<td>Education</td>
<td>0.426</td>
</tr>
<tr>
<td>Internet Hours</td>
<td>0.473</td>
</tr>
<tr>
<td>Internet Comfort &amp; Skill</td>
<td>0.713</td>
</tr>
<tr>
<td>Search Attitude</td>
<td></td>
</tr>
<tr>
<td>Traditional Channels</td>
<td>0.782</td>
</tr>
<tr>
<td>Internet Channels</td>
<td></td>
</tr>
<tr>
<td>Contact Attitudes</td>
<td>0.779</td>
</tr>
<tr>
<td>Traditional Channels 17.1,2,3.4.5.6.7</td>
<td>0.757</td>
</tr>
<tr>
<td>Internet Channels 17.8,9,10,11,12</td>
<td>0.766</td>
</tr>
<tr>
<td>KMO</td>
<td>0.748</td>
</tr>
</tbody>
</table>

These nine factors were then tested for Eigenvalues greater than 1.0 to identify any significance variance explained by each factor. With one variable, 27.0% of the variability is tested and 39.6% with six factors (Table 36).

Table 36. Eigenvalue measures for significant variance, nine variables (n=156, p<.05).

<table>
<thead>
<tr>
<th></th>
<th>F1</th>
<th>F2</th>
<th>F3</th>
<th>F4</th>
<th>F5</th>
<th>F6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eigenvalue</td>
<td>2.431</td>
<td>0.523</td>
<td>0.368</td>
<td>0.162</td>
<td>0.069</td>
<td>0.013</td>
</tr>
<tr>
<td>Variability (%)</td>
<td><strong>27.012</strong></td>
<td>5.807</td>
<td>4.094</td>
<td>1.799</td>
<td>0.762</td>
<td>0.146</td>
</tr>
<tr>
<td>Cumulative %</td>
<td>27.012</td>
<td>32.81</td>
<td>36.91</td>
<td>38.71</td>
<td>39.47</td>
<td><strong>39.620</strong></td>
</tr>
</tbody>
</table>

**Cronbach’s alpha.** Cronbach’s alpha was calculated for the reduced dataset (p < .05). An alpha of 0.555 suggests there is little redundancy among the variables, and there may be few correlations (Tavakol & Dennick, 2011). A review of the low valued alpha’s for each of the nine variables (Table 37) indicates that the alpha could be raised further by eliminating additional variables from the analysis; however, this was not done for these analyses.
Table 37. Cronbach’s alpha test for all selected variables (n=156).

<table>
<thead>
<tr>
<th>Cronbach’s alpha</th>
<th>Entire Data Set</th>
<th>0.555</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Correlations between variables and factors</td>
<td></td>
</tr>
<tr>
<td><strong>F1 Variables:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>0.128</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>-0.092</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>-0.093</td>
<td></td>
</tr>
<tr>
<td>Internet Hours</td>
<td>0.133</td>
<td></td>
</tr>
<tr>
<td><strong>Aggregate Variables:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internet Comfort &amp; Skill</td>
<td>0.308</td>
<td></td>
</tr>
<tr>
<td>Search Attitude Traditional Channels 16.1,4,5,6,7</td>
<td>0.749</td>
<td></td>
</tr>
<tr>
<td>Search Attitude Internet Channels 16.2,3,8,9,10</td>
<td>0.861</td>
<td></td>
</tr>
<tr>
<td>Marketing Contact Attitude: Traditional Channels 17.1,2,3,4,5,6,7</td>
<td>0.911</td>
<td></td>
</tr>
<tr>
<td>Marketing Contact Attitude: Internet Channels 17.8,9,10,11,12</td>
<td>0.697</td>
<td></td>
</tr>
</tbody>
</table>

Cronbach’s alpha was then conducted on the five aggregated variables (Table 38) with a resulting alpha = 0.783. This suggests sufficient correlations between four variables (alpha> 0.7) while the variable for Internet Comfort & Skill may still have few correlations, if any.

Table 38. Cronbach’s alpha test for five selected variables (n=156).

<table>
<thead>
<tr>
<th>Cronbach’s alpha</th>
<th>Aggregate Data Set, F2</th>
<th>0.783</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Correlations between variables and factors</td>
<td></td>
</tr>
<tr>
<td><strong>F2 Variables:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internet Comfort &amp; Skill</td>
<td>0.317</td>
<td></td>
</tr>
<tr>
<td>Search Attitude Traditional Channels 16.1,4,5,6,7</td>
<td>0.762</td>
<td></td>
</tr>
<tr>
<td>Search Attitude Internet Channels 16.2,3,8,9,10</td>
<td>0.848</td>
<td></td>
</tr>
<tr>
<td>Marketing Contact Traditional Channels 17.1,2,3,4,5,6,7</td>
<td>0.910</td>
<td></td>
</tr>
<tr>
<td>Marketing Contact Attitude Internet Channels 17.8,9,10,11,12</td>
<td>0.720</td>
<td></td>
</tr>
</tbody>
</table>

**Varimax rotation.** A varimax rotation analysis was then conducted for the reduced dataset. Results suggests there remain three factors (D6, D7, and D8) with positive or negative relationships between the factors (Table 39); therefore, this reduced
dataset of nine selected variables was used for quantitative analysis of the hypotheses and deemed appropriate.

Table 39. Varimax rotation for nine key factors (n = 156, p < .05).

<table>
<thead>
<tr>
<th></th>
<th>D6</th>
<th>D7</th>
<th>D8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>0.110</td>
<td>-0.054</td>
<td><strong>-0.214</strong></td>
</tr>
<tr>
<td>Age</td>
<td>-0.054</td>
<td><strong>0.231</strong></td>
<td>0.059</td>
</tr>
<tr>
<td>Education</td>
<td>-0.002</td>
<td><strong>0.619</strong></td>
<td>-0.088</td>
</tr>
<tr>
<td>Internet Hours</td>
<td>0.126</td>
<td>-0.053</td>
<td><strong>0.513</strong></td>
</tr>
<tr>
<td>Internet Comfort &amp; Skill</td>
<td><strong>0.273</strong></td>
<td>-0.141</td>
<td>0.092</td>
</tr>
<tr>
<td>Search Attitude Traditional Channels 16.1,4,5,6,7</td>
<td><strong>0.713</strong></td>
<td>0.038</td>
<td>-0.089</td>
</tr>
<tr>
<td>Search Attitude Internet Channels 16.2,3,8,9,10</td>
<td><strong>0.806</strong></td>
<td>-0.092</td>
<td>0.213</td>
</tr>
<tr>
<td>Contact Traditional Channels 17.1,2,3,4,5,6,7</td>
<td><strong>0.837</strong></td>
<td>-0.171</td>
<td>-0.102</td>
</tr>
<tr>
<td>Contact Attitude Internet Channels 17.8,9,10,11,12</td>
<td><strong>0.654</strong></td>
<td>-0.026</td>
<td>-0.189</td>
</tr>
</tbody>
</table>

Note: Values in bold correspond for each variable to the factor for which the squared cosine is the largest.
Chapter 5: Discussion

Overview

Chapter 4 presented the results of the study’s research. These results included descriptive statistics of the survey sample, test results for the three hypotheses, additional exploratory analyses, and factor analysis of the survey variables. This chapter views a summary of the research findings and examines the survey insights through inferential statistics. It includes its contribution to the scholarly literature, as well as its limitations. Finally, it suggests implications for further research.

The purpose of this study was to examine a central question: When U.S. companies contact B2B Chinese companies as prospective new business customers, do the prospective Chinese customers prefer traditional marketing approaches or newer Internet marketing approaches? Therefore, it focused on the Chinese B2B purchasing agents’ attitudes toward initial contact and solicitation by U.S. companies through traditional and Internet marketing channels.

Few studies available to Western researchers explore B2B Chinese company buying behavior or purchasing agents’ attitudes and preferences (Kaufmann & Roesch, 2012). Little of the current marketing literature addresses organizational buying behavior, empirical research remains largely undone (Figure 1), and cross-cultural organizational buying behavior of foreign companies marketing in China is essentially unexplored (Backhaus, Lügger & Koch, 2011).
The survey was provided to those persons in the Chinese management structure - administrative support through business owners - within different companies. It was not provided to workers in factory production lines, retail sales and service, or other production and delivery positions. The survey sample was highly educated. This may have been true given that only members of administrative and management positions participated and were from the region chosen for this survey - the highly sophisticated and competitive employment regions of Shanghai and Jiangsu province.

This study explores the effects of purchasing agents’ age, education, and purchasing experience with attitudes towards initial B2B marketing solicitations through traditional or Internet marketing channels. More specifically, it posits that the attitudes of purchasing agents solicited by U.S. companies are not only influenced by the marketing channels, but also the agent’s prior experience buying from U.S. companies, and other predilections of buying from Chinese or U.S. companies. These can be discussed in four categories including:

- Agents’ comfort and skill using the Internet
- Marketing solicitation contact attitudes - the attitude toward marketing solicitations from traditional and Internet sources;
- Prior experience purchasing from U.S. companies and satisfaction - respondents’ company purchases from U.S. companies and whether the company and agent has been satisfied with the experience; and
- Reasons for preferring to buy from Chinese or U.S. companies.
Discussion

Agents’ Comfort and Skill Using the Internet

This study posited that receptivity to B2B marketing solicitations through the Internet would be more acceptable to younger agents, agents with higher education, and those agents who use the Internet more often. The results did not statistically support these positions.

One might assume that younger and more educated workers would hold more positive attitudes toward Internet marketing solicitations. Hypotheses 1 and 2 tested the association between Internet marketing receptivity for both age and education level. There was an association for age such that younger respondents may hold more positive attitudes, but it was not significant. In contrast, there was a weak association such that less educated respondents may hold more positive attitudes, but this association also was not significant.

One may infer from the literature that China’s past lack of a traditional communication infrastructure (e.g., land-line phones, fax, or mail) has led to rapid diffusion and adoption of digital technologies for people of all ages and education levels to participate in China’s economy today. As noted earlier, user attitudes and behavioral intentions often reflect technology adoption rates and technology diffusion (Van Ittersum & Feinberg, 2010). The adoption of innovation and communication within social groups creates behavioral and attitudinal changes. Diffusion rates are also often dependent on education level, social status, culture, and risk aversion (Davis, Bagozzi & Warshaw, 1989, 1999; Rogers, 2003). Consistent with the body of literature, Internet adoption rates and performance are significantly relevant to commercial uses in emerging economies.
such as China, and perceived usefulness has a strong correlation to people’s intention to use computers and online transactions (Eid, Trueman & Abdel, 2002). The survey respondents were highly educated business persons participating in an advanced, economically robust region of China which has had significant exposure to Western and global business. One may conclude that this affects the resulting attitudes identified in hypothesis testing more than any one source or demographic of the survey sample.

Utilizing the Internet for researching products and companies was widespread within the survey sample (Tables 15 and 16). Measures of Internet use and respondents’ self-reported comfort were high across the survey sample. This suggests that a key factor for Internet marketing channels – significant customer Internet absorption and diffusion rates – has been reached in this survey sample across all agents over 21 in the Chinese administrative workforce who have a high school degree or additional higher education (Casella, 2007; Cina & Chen, 1999; Chong, Shafagi & Tan, 2011).

Traditional research channels. In factor analysis, the results of the varimax rotation (Table 33) suggested certain dynamics. Dynamics for Traditional Research Sources are consistent (factor D5). As preference for one traditional research channel increased, so did most of the others. Those channel variables creating the greatest variance (i.e., the greatest influence) in ranked order were conferences (0.749), articles (0.610), advertisements (0.543), and trade shows (0.469). Although this does not support cause-and-effect, it does suggest a recommended rank of priorities for companies’ marketing investments and activities in China.

Internet research channels. The Internet was used as a research tool more often than traditional research methods (Table 16). Research Sources (Table 33, factor D2) was a significant measure of Internet search sources and were similarly consistent with results
for traditional research sources: Use of all Internet channels increased when any one channel’s use increased. Ranked by influence, these channels included e-commerce sites (0.682), search engines (0.652), and social media (0.516).

This suggests that investments in Internet research channels are more important than investments in traditional research channels. It also suggests that U.S. marketing departments must make focused investments in their Internet presence in China for both their company and products. This includes not only a China based company website, but also employing and optimizing for native search platforms such as Baidu and e-commerce websites such as Alibaba and industry specific e-commerce platforms.

Although results show a weak correlation for the use and influence of social media platforms, these correlations may be the result of a chance finding and may become more important in the future for companies and products. These communication platforms should be monitored for a company’s product line categories, substitute products, and competitors. Anecdotally, social Internet communication platforms such as WeChat and QQ proved to be a required survey tool in identifying and connecting with survey respondents for this study. Similar effects may hold true in building and maintaining relationships in B2B marketing.

**Marketing Solicitation Contact Attitudes**

Marketing Contact Channel preferences represented significant variables in the varimax analysis (Table 33). Although factor analysis supported utilizing smaller datasets for analysis purposes, a more granular view of the association between variables was provided through correlation analyses across all twelve attitude variables (Table 26 and 27). Based on the trends and associations, one can infer additional conclusions.
Contact preferences for Traditional Source indicate that as one traditional contact variable increased most of the other traditional contact variables also increased (Table 33, factor D1). In ranked order from the largest variation contributor to the least were marketing contacts through personal visits (0.671), trade shows (0.658), conferences (0.635), networking events (0.500), phone calls (0.446), and friends (0.422). Similarly, as one Internet Source contact preference increased, so did the other Internet contact channels (Table 33, factor D3). In ranked order from largest variation contributor to the least were marketing contacts through email from a friend (0.761), webinars (0.668), personal email from a company person (0.661), social media (0.568), and company emails (0.535). This suggests not only marketing channel priorities for companies, but also that successful initial contacts with potential new customers in any one channel type – traditional or Internet based – is also a fertile approach for future contact.

One may conclude from the agents’ preference results (Tables 29 and 30) that personal visits are not the best channel for companies’ initial marketing contact, although factor analysis suggests that personal visits have the most influence (Table 33). The concept of utilizing friends and trusted business associates (i.e., guanxi) remains the most acceptable approach (Table 27) which may explain why personal visits have the most influence while are not the best method for initial unsolicited marketing contact.

Ranking positive attitudes (Strongly Agree + Agree) and negative attitudes (Disagree + Strongly Disagree), one notes that remote methods of solicitation generate the most positive attitudes toward solicitations although. The most positive attitude responses included direct mail, webinars, conferences, networking events, company emails (rather than an email from a person at a company), and trade shows. In comparison, a phone call or email solicitation from a person at a company generated the
most negative attitudes. Although no correlation was completed, results suggest this may be more true for females than for males (Figure 13).

Hofstede’s concepts of power distance and uncertainty avoidance in Asian cultures appear important in understanding marketing channels and are consistent with this study’s results (Hofstede, 2001; Hofstede & Bond, 1988). If the power distance is not closed through guanxi, a friend, or a trusted business associate, the preferred initial solicitation methods tend to be through less personal channels. On the other hand, once a relationship is developed, more personal approaches are better received.

Study results suggest relationship activities would enhance the ability to market more effectively through the more personal traditional and Internet marketing channels as well as through agents’ trusted friends and business associates. Although these dynamics were not a focus of this study, it was not captured in the existing academic and professional literature review (Doyle & Balegno, 2012; Gartner, 2013; Nathan & Schmidt, 2013).

Examining the preference analysis one can infer certain conclusions (Tables 36, 37, 38 and 39). Gartner’s 2013 survey of 503 Western B2B customers’ channel preferences (Figure 4) concluded that key pre-sale factors ranked by importance include:

- custom tailored pricing and product offers
- customer input to product development,
- quality and usefulness of the supplier’s website,
- relevant published supplier white papers, and
- work related networking.
These compare favorably with Chinese purchasing agents’ research channels when first interested in purchasing a product, but they do not necessarily compare well by rank order for product research channels (Figure 5, Table 17) and marketing solicitations (Table 27).

Studies of Western marketers (Doyle & Balegno, 2012) indicated marketing department channel investments (Figure 2). These did not align with the receptivity attitudes found in this study. U.S. companies seeking to solicit new Chinese B2B customers may find that participating in activities such as speaking engagements, industry organizations, dinners, or discussion panels provide the best opportunities to close perceived power distances, reduce contact uncertainty, and build rapport within the Chinese business community.

**Prior Experience Purchasing from U.S. Companies and Satisfaction.**

Hypothesis 3 testing confirmed that Chinese purchasing agents with prior experience buying products from U.S. companies view marketing solicitations from U.S. companies more favorably than those agent without such experience. To understand this better, additional analyses were completed.

Of the 156 respondents, 59% (92) had direct experience and knowledge of their company’s purchasing experience. Of these 92 agents, 53 (57.6% Agree or Strongly Agree) had a positive experience while 2 (2.2% Strongly Disagree) did not have a positive experience (Table 38).
Table 38. Chinese company purchasing frequency from U.S. companies and positive experience.

<table>
<thead>
<tr>
<th>Purchase frequency from U.S. Companies (n=156)</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neither Agree or Disagree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Do Not Know</th>
<th>Cumulative Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequently</td>
<td>7</td>
<td>1.2%</td>
<td>12</td>
<td>4.2%</td>
<td>2</td>
<td>1.0%</td>
<td>0.00%</td>
</tr>
<tr>
<td>Occasionally</td>
<td>27</td>
<td>9.4%</td>
<td>15</td>
<td>6.4%</td>
<td>1</td>
<td>0.6%</td>
<td>0.00%</td>
</tr>
<tr>
<td>Rarely</td>
<td>1</td>
<td>0.2%</td>
<td>20</td>
<td>10.5%</td>
<td>2</td>
<td>1.3%</td>
<td>0.00%</td>
</tr>
<tr>
<td>Never</td>
<td>0</td>
<td>0.0%</td>
<td>7</td>
<td>3.7%</td>
<td>1</td>
<td>0.7%</td>
<td>0.00%</td>
</tr>
<tr>
<td>Do Not Know</td>
<td>1</td>
<td>0.6%</td>
<td>1</td>
<td>0.6%</td>
<td></td>
<td>0.00%</td>
<td>0.00%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>8</strong></td>
<td><strong>1.4%</strong></td>
<td><strong>46</strong></td>
<td><strong>16.1%</strong></td>
<td><strong>45</strong></td>
<td><strong>23.6%</strong></td>
<td><strong>2</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Respondents with U.S. Purchase Experience (n=92)</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neither Agree or Disagree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Do Not Know</th>
<th>Cumulative Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequently</td>
<td>7</td>
<td>7.6%</td>
<td>12</td>
<td>13.0%</td>
<td>2</td>
<td>2.2%</td>
<td>21</td>
</tr>
<tr>
<td>Occasionally</td>
<td>27</td>
<td>29.3%</td>
<td>15</td>
<td>16.3%</td>
<td></td>
<td>0.00%</td>
<td>42</td>
</tr>
<tr>
<td>Rarely</td>
<td>1</td>
<td>1.1%</td>
<td>6</td>
<td>6.5%</td>
<td>2</td>
<td>2.2%</td>
<td>29</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>8</strong></td>
<td><strong>8.7%</strong></td>
<td><strong>45</strong></td>
<td><strong>48.9%</strong></td>
<td><strong>37</strong></td>
<td><strong>40.2%</strong></td>
<td><strong>2</strong></td>
</tr>
</tbody>
</table>

Note: n = 156 is all respondents; n = 92 are all respondents with direct purchasing experience and knowledge of experience results.

These additional findings indicate that those respondents who have experience buying from U.S. companies are significantly more receptive to marketing contact through conferences and phone calls than those respondents who do not have experience buying from U.S. companies (Tables 25, 26, and 27). The group with prior U.S. buying experience is more discriminating in how they are contacted. In contrast, those who do not have buying experience from U.S. companies are less discriminating to all forms of contact without much distinction. Although these samples are within a specific region of China, are relatively small, and may not be transferable to the national Chinese
purchasing agent groups, the trends, however, are consistent with the dynamics seen in the varimax rotation and favor additional study.

**Reasons for Preferring Chinese or U.S. Companies.**

In addition to the hypotheses tested, additional analyses were completed to better understand the survey sample dynamics. Respondents selected reasons for their preference working with Chinese or U.S. B2B companies. Choices were not rank ordered and the survey allowed more than one response. The category choices were different for Chinese and U.S. companies rather than identical. This was to identify key reasons and motivations (including potential corruptive practices) based on prior research (Chong, Shafaghi & Tan, 2011; Eid, Trueman & Abdel, 2002; Harrison & Hedley, 2010; Hofstede, 2001).

<table>
<thead>
<tr>
<th>Chinese Company Preferences</th>
<th>% of Total</th>
<th>% of Respondents (n=156)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price</td>
<td>38.0%</td>
<td>62.2%</td>
</tr>
<tr>
<td>Flexible</td>
<td>24.3%</td>
<td>39.7%</td>
</tr>
<tr>
<td>No Cultural Barriers</td>
<td>19.6%</td>
<td>32.1%</td>
</tr>
<tr>
<td>Kickbacks &amp; Commissions</td>
<td>7.1%</td>
<td>11.5%</td>
</tr>
<tr>
<td>Special Favors</td>
<td>5.5%</td>
<td>9.0%</td>
</tr>
<tr>
<td>Other</td>
<td>5.5%</td>
<td>9.0%</td>
</tr>
<tr>
<td><strong>SubTotal This Category</strong></td>
<td><strong>100.0%</strong></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>U.S. Company Preferences</th>
<th>% of Total</th>
<th>% of Respondents (n=156)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality and Services</td>
<td>35.2%</td>
<td>61.5%</td>
</tr>
<tr>
<td>Warranty &amp; Legal Protections</td>
<td>27.8%</td>
<td>48.7%</td>
</tr>
<tr>
<td>Meets International Standards</td>
<td>19.4%</td>
<td>34.0%</td>
</tr>
<tr>
<td>Efficiency</td>
<td>12.5%</td>
<td>21.8%</td>
</tr>
<tr>
<td>Other</td>
<td>5.1%</td>
<td>9.0%</td>
</tr>
<tr>
<td><strong>SubTotal This Category</strong></td>
<td><strong>100.0%</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Grand Total Both Categories</strong></td>
<td><strong>193.4%</strong></td>
<td></td>
</tr>
</tbody>
</table>

Friends and trusted business associates remain a key marketing ingredient in both traditional and Internet marketing channels. These results help provide other insights into Chinese agent buying attitude. As one considers marketing and doing business with Chinese companies, however, the influence of both guanxi marketing and potential corruption in the form of kickbacks or personal favors must be considered.

The concept of sales commissions is a common business practice worldwide. Monetary and non-monetary favors provided directly to purchasing agents by suppliers, however, may be perceived or legislated as unethical and corrupt. If corruption is viewed from the concept of an agent’s personal gain, 19.5% of survey responses suggest personal gain may influence purchasing decisions (Table 39: kickbacks and commissions = 11.5%,...
special favors = 9%). Of the survey sample, however, price (62.2%, n=156), quality (61.5%), warranty and legal protections (48.7%), and flexible working arrangements (39.7%) remain more frequently reported aspects for choosing Chinese B2B or U.S. B2B companies. To put this in Western context, a study of 3,000 Western purchasing agents found that these B2B customers were eight times (8x) more likely to buy a B2B product when there was a perceived personal gain such as purchase pride, career advancement, or increased company confidence in the buying agent (Nathan & Schmidt, 2013).

Conclusions

All surveyed Chinese purchasing agents across differing age and education levels are facile utilizing the Internet, and all respondents use the Internet for researching companies and products. They all also continue to employ traditional sources. There does not appear to be any significant Internet diffusion, adoption, or use obstacles for marketing B2B products to potential customers in China. Hypotheses H1 and H2 confirm there are no significant associations between age or education levels and their attitudes toward Internet marketing solicitations.

Findings for H3, however, indicate that those agents with prior experience purchasing from U.S. companies hold a significantly more positive attitude toward solicitations from U.S. companies than those agents without such experience. This group is more inclined to accept contact through personal marketing channels such as phone calls, emails from a person at a company, or personal visits. Additional Pearson association analyses indicate that both conferences and phone calls are significantly important channels.
For those agents without such prior experience with U.S. companies, relationship marketing channels are more important and marketing through personal channels (e.g., email, phone calls, visits) may be received with negative reactions and may be detrimental.

The central underlying research question of this study was: When U.S. companies contact B2B Chinese companies as prospective new business customers, do the prospective Chinese customers prefer traditional marketing approaches or newer Internet marketing approaches? For the Tier 1 and Tier II areas of this study, the answer appears to be a qualified, “Yes”. Although confusing, it can be concluded that both traditional and Internet approaches are important, however, less personal marketing channels for initial marketing solicitations currently tend to be received with more positive attitudes. If a personal relationship has been established, more personal solicitations are effective.

The common thread in the results suggests that those agents who U.S. companies can initially contact through one traditional channel tend to be more receptive to other traditional marketing channels. Similarly, agents who can initially be contacted through an Internet channel tend to be more receptive to other Internet marketing channels. Relationship marketing through purchasing agents’ friends or trusted business associates appears most effective. This study suggests the avenues for U.S. companies to initiate those relationships include webinars, participation in conferences, networking events, tradeshows, and social media.

While it was well known that China has the largest number of netizens in the world and the largest e-commerce platform (Alibaba). Few studies have explored how this translates into Chinese business-to-business markets and its marketing channel attitudes. As noted in the literature review, four trends exist. One could anticipate the
factors of evolving communication changes, rapid Internet adoption rates, and need for adapting to Chinese cultural norms. The fourth trend, trust and its effect on e-commerce and business attitudes was expected given the concepts of guanxi and proved to remain an important ingredient in marketing solicitations.

The cultural and business leap in China has been rapid and changed everything in China since introduction of the Internet in 1995. Based on the earlier U.S. pilot study conducted and as a practitioner with business experience in the U.S. and China, this research inherently assumed China would display similar marketing attitude profiles as found in the U.S and reflected in the hypotheses:

- younger and more educated business people tend to use the Internet more frequently;
- younger and more educated business people who use the Internet frequently would be more positively receptive to Internet marketing channels; and
- those business people with prior exposure to working with foreign companies would be more positively receptive to solicitations from companies from that foreign country.

While the third assumption holds true in this research, findings indicate the first two assumptions are not true for China. This was a surprising result as a practitioner and causes one to consider how new technologies such as mobile and Internet communications affect marketing in a country that did not have existing, traditional communication and transportation infrastructure.
Contributions to the Body of Knowledge and the Profession

Contributions to Theory. This study fills a research gap in China marketing empirical studies in the fields of organizational buyer behavior, B2B marketing channel management, and buyer-seller relations. It makes four contributions.

First, this research identified a significant gap in current organizational buyer behavioral marketing literature for Western companies marketing in China (Figure 1). Through 2005, commissioned B2B marketing studies reflected assessments typical of emerging markets such as those in China – structure, size, key players, and market entry strategies (Harrison, 2005).

Second, this research helps fill the empirical research gap in China for Western companies, providing marketing insights into the Chinese B2B buying agents’ attitudes for unsolicited marketing through traditional and Internet channels (Parasuramon & Zinkhan, 2002).

Third, this study updates earlier Internet marketing studies, specifically those regarding China. With the academic rigor required for executing studies and peer reviewed publication, academic publications have had difficulty remaining current with the rapid evolution of the Internet marketing environment (Sarne & Fouts, 2013).

Finally, it provides an initial database and insights for empirical buyer behavioral studies in marketing and provides a structure and survey instrument for further research. The existing dataset provides an opportunity for additional correlations and insights into Chinese B2B purchasing agent attitudes beyond the hypotheses of this study.

Contributions to the Profession. This study provides a research instrument and approach for marketing organizational and attitude buyer studies across and between industries and regions of the China markets. With minor localized adjustments, it also
provides an instrument for cultural buyer behavioral surveys and insights within or between other nations.

It also provides research insights for Western researchers conducting empirical surveys in China for sample selection and survey execution. The literature survey indicated there are few theoretical frameworks or rigorous research completed to identify the marketing channel options in China and to monitor their return on these investments. One of the challenges was conducting an empirical survey in China as an independent Western researcher. This study’s approach suggests methods and experiences for Western researchers to conduct such additional research from which theoretical frameworks can be developed (Wang & Song, 2011).

Limitations

As noted in Chapter 1, this study was subject to several limitations, some of which were mitigated (see Delimitations, Chapter 1). It is still subject to five limitations which must be considered.

The first is the ability to generalize and transfer these results to the larger Chinese B2B purchasing agent community. Additionally, 50% of respondents were working adult Executive MBA students at Soochow University. These respondents may have introduced a group attitude variable which may not be reflected in the larger Chinese purchasing agent community. The anonymous data collection did not distinguish between response groups and does not allow separate analysis to examine the potential effects of this group for age, job function, or attitudes.

The study focuses on an Eastern region of China, (Shanghai, Suzhou, Nanjing and greater Jiangsu province) which includes some of the most economically robust areas in
all of China with a significant history of working with foreign B2B companies. Other regions of China may produce significantly different survey results given the apparent key factors – a) education, b) Internet use, comfort, and skill, and c) prior experience buying from U.S. companies. Specific industries may provide different results; however, data collection to analyze specific industries was beyond the scope of the survey and this study.

The second limitation is coverage and survey non-response limitations. One challenge in China is the ability of an independent researcher to collect relevant sample data for working adults. Of survey respondents, 38.5% are directly responsible in purchasing process and no attempt was made to identify the level to which the other respondents may or may not influence the purchasing process. Additionally, although the methodology provided for alternative survey methods including Internet, paper, and phone surveys, the effective response rate to 1050 emails with 6.8% (55) accessing the web-link and completing the survey. This is a reasonably successful response rate for most surveys; however, a broader distribution and larger sample of respondents who directly influence the purchasing process would enhance the ability to project results to the larger Chinese B2B purchasing population. U.S. researchers conducting surveys in China must be cognizant of survey challenges and must to engender the local Chinese business community trust and support necessary to conduct a substantive survey.

The third limitation is industry and government influence. No attempt was made to focus on specific industry responses or government controlled industries for the sixteen industries represented by the survey sample (Appendix B, Figure B1). One must consider that 43% (144,700) of all industrial Chinese businesses remain government controlled and these results may include this subset of business-to-government marketing (Strauss,
Frost & Ansary, 2009). Some of the industries represented in the study may be more or less inclined to utilize foreign B2B suppliers than other industries.

Fourth, one must consider Internet penetration rates and technology adoption which differ from country to country (Alon & Jaffe, 2012; Jen-Her & Shu-Ching, 2005; Tsang-Sing, Gang & Zhou, 2009). Of all survey respondents, 100% utilize the Internet without any significant correlation to age or education. Of these, 90% (140) of respondents’ companies utilize the Internet to purchase products and 69% (107) purchase products from U.S. companies occasionally or more frequently. These results reflect the high penetration rates of Internet use in Eastern Chinese companies and the exposure of these companies to purchasing from foreign B2B companies (Casella, 2007; Cina & Chen, 1999; Chong, Shafaghi & Tan, 2011; CNNIC, 2013; iResearch, 2013).

Finally, the effects of gender or job function on attitudes are reported, but not explored or tested quantitatively. Data was gathered by gender and job function, but no attempt is made to analyze potential correlations and was beyond the intent of this study.

**Implications for Further Research**

Although this study did not validate two of the proposed hypotheses (H1 and H2), it does provide insights for further study. Several alternatives are evident. First, conducting this survey within the same geographic region on a sample with a greater percentage of purchasing agents with direct influence on the purchasing process will help validate the data and conclusions suggested by this study.

Second, conducting a similar study in alternative regions of China with different economics such as western China with differing levels of experience with Western companies would allow researchers to compare and contrast results. Testing in other Tier
II cities, or moving to Tier III and IV cities with different economics and socio-political environments would also provide new comparisons. Since the purchasing process and motivations across industries vary, including customized marketing messages, regulatory requirements, and political influence for both buyer and supplier. Focusing such regional studies within an industry could provide insights into the specific dynamics of such industries. This would provide guidance that is more specific to foreign companies entering and targeting Chinese B2B markets.

Third, conducting studies of similar populations where respondents must rank order preferences may provide greater insight into the efficacy of alternative marketing channels, providing additional guidance and actionable information to the U.S. business marketing community. In any event, the data developed can provide the professional business community a basis for further focused professional surveys of organizational and personal B2B purchasing behavior.

Finally, the survey could be expanded to include evolving and new forms of Internet communications. For example, instant text messages and platforms similar to Twitter are used by marketers in the U.S. and could be explored in China (e.g., WeChat, Weibo, or 163). In the U.S., visual image marketing is becoming a monetized marketing vehicle through existing image platforms such as Instagram, Pinterest, or Snapchat.

Video marketing is also rapidly increasing through existing platforms such as Facebook and YouTube. Image and video content are growing rapidly in China through applications such as WeChat, Sina Weibo, Baidu, Tencent, or Youku. As of yet, these do not appear to be a monetized marketing vehicle but marketing uses are expected to grow rapidly over the next few years (Digital, 2013, 2014).
This study concludes that global communication and e-commerce changes have profound implications for marketing in China (Chong, Shafaghi & Tan, 2011) and are ripe for further research.
References


Communication & Mass Media Complete, Ipswich, MA.


**CHINESE PURCHASING PREFERENCE SURVEY**

中国人之商务采购偏好调查

This survey is about your personal preferences as a buyer of business products or services. There are no wrong answers.

This survey is completely anonymous. Your identity will remain unknown and will not be recorded. Do not put your name on this survey.

此问卷旨在调查关于您作为商务产品或服务购买者时的个人偏好。此问卷并不存在错误回答。

此问卷调查完全采用匿名制。您的个人信息无需被告知或记录。请务必不要将您的姓名填写于本调查问卷之上。

1. First, there are questions about you 首先，有几个关于您个人的问题

2. Second, there are questions about your general Internet use.

其次，会有几个关于您如何使用互联网的问题。

3. Third, there will be a series of questions, each asking you your preferences when a company tries to contact you and interest you in purchasing their products or services.

再次，将会有一系列的问题依次询问您关于一家公司试图联系您并且唤起您的兴趣购买他们的产品或者服务时的个人偏好。

**INSTRUCTIONS:**

*Online Survey:* Using your mouse, click on the circle or box that is your best answer.

*Paper Survey:* Using a pen or pencil, put an X or ✓ on the circle that is your best answer.

**COMPLETION TIME:** 5 to 10 minutes

简要说明：

**网络调查**：使用您的鼠标点击选择您个人最佳答案所对应的圆圈或方格。

**书面调查**：使用圆珠笔或铅笔在您个人最佳答案所对应的圆圈上打叉或打勾。

**完成时限**：5 到 10 分钟
Provide general information about yourself.

请提供关于您自己的大致信息

1.0 Is this the first time you have taken this survey? 您是否是第一次做此项调查？
   1. 是 Yes
   2. 否 No

2.0 Is Mandarin your primary language? 汉语是否是您的主要语言？
   1. 是 Yes
   2. 否 No

3.0 Do you participate in buying products or services for your company? 您是否参与您公司的产品或服务采购？
   1. 是 Yes
   2. 否 No

4.0 What is your gender? 您的性别？
   1. 男 Male
   2. 女 Female

5.0 What is your age? 您的年龄范围？
   1. 21-25
   2. 26-30
   3. 31-35
   4. 36-40
   5. 41-45
   6. 46-50
   7. 51-55
   8. 56-60
   9. 61-65
   10. Over 66 以上 66
6.0 What is your highest level of education? (mark only one)
   您的最高学历是？（请选择唯一项）
   1. High school 高中
   2. Some College but no degree 无证书的学院
   3. Associate Degree 肄业证书
   4. Bachelors Degree 本科
   5. Masters Degree 研究生
   6. Doctorate or PhD 博士

7.0 How many hours per day do you typically use the Internet for any reason?
   出于任何原因您平均每天会使用多少小时的互联网？
   1. More than 4 hours 大于 4 小时
   2. 2 to 4 hours 2 到 4 小时
   3. 0 to 2 hours 小于 2 小时
   4. I Never use the Internet 我从不使用互联网

8.0 What is your primary job as a buyer for your company? (mark only one)
   作为公司的采购人员，您的主要工作 / 职务是什么？（请选择唯一项）
   1. Administrative Support 行政助理
   2. Buyer or Purchasing Agent 采购员
   3. Purchasing Manager 采购经理
   4. Purchasing Director 采购总监
   5. Vice President 副总裁
   6. President/CEO/Business Owner 总裁 / CEO/企业主
   7. Other 其他
Indicate whether you agree or disagree with the following statements about yourself.

请表明您是否同意下列关于您个人的陈述

9.0 I consider myself good at using the Internet to research information.
您认为自己善于使用互联网搜索信息
   1. Strongly Agree 非常赞成
   2. Agree 赞成
   3. Neither Agree nor Disagree 不予表态
   4. Disagree 反对
   5. Strongly Disagree 强烈反对

10.0 I use the Internet to research companies, products, and services.
您会使用互联网搜索公司，产品及服务
   1. Strongly Agree 非常赞成
   2. Agree 赞成
   3. Neither Agree nor Disagree 不予表态
   4. Disagree 反对
   5. Strongly Disagree 强烈反对
Provide information about your company. 请提供关于您公司的信息

11.0  In what general industry does your company participate? (mark only one)
您的公司属于哪个行业？（请选择唯一项）
- Accommodations, Hospitality, or Catering 餐饮，酒店或冷餐
- Agriculture, Hunting, Forestry and Fishing 农林畜牧业
- Construction 建筑业
- Culture, Sports and Entertainment 文化体育及娱乐
- Education 教育
- Electricity, Natural Gas and Water Production and Supply in China 电力，天然气及水资源的国内生产和供给
- Financial Intermediation 金融中介
- Health, Social Security and Social Welfare 卫生，社保和社会福利
- Information Transmission, Computer Services and Software 信息传输，计算机服务和软件
- Rentals and Leasing 租赁
- Business Services such as consulting, accounting, or legal 咨询，会计，或者法律服务
- Management of Water Conservation, Environment and Public Facilities 节水，环境和公共设施的管理
- Manufacturing 制造业
- Mining 采矿业
- Real Estate 房地产
- Scientific Research, Technical Service and Geologic Prospecting 科学研究，技术服务以及地质勘查
- Transportation, Storage, Warehousing, and Ports 运输，储藏，仓库及港口
- Wholesale and Retail Trade 批发及零售

12.0  My company uses the Internet to purchase Products or Services.
您的公司会通过互联网购买产品或服务。
- Frequently 频繁
- Occasionally 偶尔
- Rarely 极少
- Never 从不
- Do Not Know 无从知晓
13.0 My company purchases Products or Services from U.S. companies.
您的公司会从美国的公司购买产品或服务。
   1. Frequently 频繁
   2. Occasionally 偶尔
   3. Rarely 极少
   4. Never 从不
   5. Do Not Know 无从知晓

14.0 My company uses the Internet to purchase Products or Services from U.S. companies.
您的公司会通过互联网从美国的公司购买产品或服务。
   1. Frequently 频繁
   2. Occasionally 偶尔
   3. Rarely 极少
   4. Never 从不
   5. Do Not Know 无从知晓

15.0 My company purchases Products or Services from U.S. companies and our experience is very satisfactory.
您的公司会从美国的公司购买产品或服务，并且对以往的购买经历感到非常满意。
   1. Strongly Agree 非常赞成
   2. Agree 赞成
   3. Neither Agree nor Disagree 不予表态
   4. Disagree 反对
   5. Strongly Disagree 强烈反对
Indicate how you learn about products made by other companies.

请表明您会通过何种方式了解其他公司制造的产品

16.0 When you are first interested in buying a new product or service from another company, do you

当您初次对从另一家公司购买新的产品及服务时，您会采取以下行动

16.1) ask a Friend or Trusted Business Person for advice?

向朋友或者受您信赖的商人咨询？
1. Always 总是
2. Frequently 时常
3. Occasionally 偶尔
4. Rarely 几乎不
5. Never 从不

16.2) use Company or Supplier Websites?

通过公司或者供应商的网站进行了解？
1. Always 总是
2. Frequently 时常
3. Occasionally 偶尔
4. Rarely 几乎不
5. Never 从不

16.3) use Baidu or other Industry Search Engine?

通过百度或者其他搜索引擎进行了解？
1. Always 总是
2. Frequently 时常
3. Occasionally 偶尔
4. Rarely 几乎不
5. Never 从不
16.4）**read Industry Advertisements?**

阅读相关产业的广告?
1. Always 总是
2. Frequently 时常
3. Occasionally 偶尔
4. Rarely 几乎不
5. Never 从不

16.5）**read Industry Articles and Magazines?**

阅读相关产业的论文以及杂志?
1. Always 总是
2. Frequently 时常
3. Occasionally 偶尔
4. Rarely 几乎不
5. Never 从不

16.6）**attend Conferences?**

在行业会议中商讨?
1. Always 总是
2. Frequently 时常
3. Occasionally 偶尔
4. Rarely 几乎不
5. Never 从不

16.7）**attend Trade Shows?**

参加贸易展会?
1. Always 总是
2. Frequently 时常
3. Occasionally 偶尔
4. Rarely 几乎不
5. Never 从不
16.8) use Online e-commerce sites such as Alibaba?
通过网络电商，例如阿里巴巴，淘宝等进行了解?
1. Always 总是
2. Frequently 时常
3. Occasionally 偶尔
4. Rarely 几乎不
5. Never 从不

16.9) use Industry Product Review websites or Social Media websites?
通过相关产业的产品测评网站或者社交传媒网站进行了解?
1. Always 总是
2. Frequently 时常
3. Occasionally 偶尔
4. Rarely 几乎不
5. Never 从不

16.10) attend Online Webinars?
参加网络研讨会及其他网上活动?
1. Always 总是
2. Frequently 时常
3. Occasionally 偶尔
4. Rarely 几乎不
5. Never 从不
Indicate whether you agree or disagree with the following statements about yourself. 请表明您是否认同以下关于您本人的陈述。

17.0 When you are first approached by a company to purchase their products or services, indicate how you like to be introduced:
当您因需要购买产品或服务而首次接触一家公司时，请表明您希望通过怎样的方式被介绍：

17.1) by a Friend or Trusted Business Person 通过朋友或者受您信赖的商人
1. Strongly Agree 非常赞成
2. Agree 赞成
3. Neither Agree nor Disagree 不予表态
4. Disagree 反对
5. Strongly Disagree 强烈反对

17.2) at a Trade Show 在某次贸易展会上
1. Strongly Agree 非常赞成
2. Agree 赞成
3. Neither Agree nor Disagree 不予表态
4. Disagree 反对
5. Strongly Disagree 强烈反对

17.3) at a Conference 在某次会议上
1. Strongly Agree 非常赞成
2. Agree 赞成
3. Neither Agree nor Disagree 不予表态
4. Disagree 反对
5. Strongly Disagree 强烈反对
17.4) **at a Networking Event** 在某个社交活动中
1. Strongly Agree 非常赞成
2. Agree 赞成
3. Neither Agree nor Disagree 不予表态
4. Disagree 反对
5. Strongly Disagree 强烈反对

17.5）**by a Phone Call** 通过电话联络
1. Strongly Agree 非常赞成
2. Agree 赞成
3. Neither Agree nor Disagree 不予表态
4. Disagree 反对
5. Strongly Disagree 强烈反对

17.6）**by a Personal Visit from the new company** 新公司专程派人拜访
1. Strongly Agree 非常赞成
2. Agree 赞成
3. Neither Agree nor Disagree 不予表态
4. Disagree 反对
5. Strongly Disagree 强烈反对

17.7）**by Direct Mail** 通过邮件
1. Strongly Agree 非常赞成
2. Agree 赞成
3. Neither Agree nor Disagree 不予表态
4. Disagree 反对
5. Strongly Disagree 强烈反对
17.8）by an Email from the company通过这家公司的 EMAIL
   1. Strongly Agree 非常赞成
   2. Agree 赞成
   3. Neither Agree nor Disagree 不予表态
   4. Disagree 反对
   5. Strongly Disagree 强烈反对

17.9）by an Email from a person at the company
通过这家公司所属个人的 EMAIL
   1. Strongly Agree 非常赞成
   2. Agree 赞成
   3. Neither Agree nor Disagree 不予表态
   4. Disagree 反对
   5. Strongly Disagree 强烈反对

17.10）by an Email from a Friend or Trusted Business Person
通过朋友或者受您信赖的商人的 EMAIL
   1. Strongly Agree 非常赞成
   2. Agree 赞成
   3. Neither Agree nor Disagree 不予表态
   4. Disagree 反对
   5. Strongly Disagree 强烈反对

17.11）through a Webinar or Other Online Event
通过网络研讨会或者其他网络活动
   1. Strongly Agree 非常赞成
   2. Agree 赞成
   3. Neither Agree nor Disagree 不予表态
   4. Disagree 反对
   5. Strongly Disagree 强烈反对
17.12) **through a Social Media site such as Dianping, Renren, SinaWeibo, QQ, 51, or Wechat**

通过社交媒体，例如大众点评，人人网，新浪微博，QQ，51网，或者微信

1. Strongly Agree 非常赞成
2. Agree 赞成
3. Neither Agree nor Disagree 不予表态
4. Disagree 反对
5. Strongly Disagree 强烈反对

18.0 **You prefer work with Chinese company because the Chinese company__________.**

（Choose more than one if necessary）

您倾向于选择与中国公司合作因为中国公司_________。（多选）

1. Has minimum cultural barriers 文化障碍最低
2. Has a price advantage 价格优势
3. Provides kickbacks and commissions 回扣和佣金
4. Returns special help or favors 回恩赐
5. Is flexible to implementation and communication 操作和沟通灵活
6. Other reasons 不回答

19.0 **You prefer work with a U.S. company because the American company__________.**

（Choose more than one if necessary）

您倾向于选择与外国公司合作因为外国公司_________。（多选）

1. Has quality product and customer services 产品质量和服务优势
2. Has warranty and legal protection 产品售后服务和法律保护
3. Is efficient in implementation and communication 操作和沟通效率
4. Aligns with international standard 国际化接轨
5. Other reasons 不回答
### Appendix B: Additional Tables and Figures

**Table 1: China and Export Data**

<table>
<thead>
<tr>
<th>Year</th>
<th>GSP Growth</th>
<th>Change in GSP 1999</th>
<th>Change in GSP 2008</th>
<th>Change in GSP 2018</th>
<th>Export to USA</th>
<th>US Export to China</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>2.7%</td>
<td>-4.5%</td>
<td>-6.4%</td>
<td>-7.2%</td>
<td>25.5%</td>
<td>22.4%</td>
</tr>
<tr>
<td>2001</td>
<td>4.9%</td>
<td>0.6%</td>
<td>0.5%</td>
<td>-1.3%</td>
<td>30.6%</td>
<td>25.5%</td>
</tr>
<tr>
<td>2002</td>
<td>4.7%</td>
<td>1.7%</td>
<td>0.9%</td>
<td>-0.2%</td>
<td>35.0%</td>
<td>27.8%</td>
</tr>
<tr>
<td>2003</td>
<td>4.2%</td>
<td>2.4%</td>
<td>1.3%</td>
<td>-1.6%</td>
<td>39.8%</td>
<td>29.6%</td>
</tr>
<tr>
<td>2004</td>
<td>4.7%</td>
<td>2.6%</td>
<td>2.0%</td>
<td>-1.2%</td>
<td>43.5%</td>
<td>31.7%</td>
</tr>
<tr>
<td>2005</td>
<td>4.5%</td>
<td>2.8%</td>
<td>2.2%</td>
<td>-1.7%</td>
<td>47.0%</td>
<td>33.8%</td>
</tr>
<tr>
<td>2006</td>
<td>4.0%</td>
<td>2.8%</td>
<td>2.2%</td>
<td>-1.8%</td>
<td>49.7%</td>
<td>35.9%</td>
</tr>
<tr>
<td>2007</td>
<td>3.6%</td>
<td>2.9%</td>
<td>2.2%</td>
<td>-1.9%</td>
<td>52.4%</td>
<td>38.0%</td>
</tr>
<tr>
<td>2008</td>
<td>3.4%</td>
<td>3.0%</td>
<td>2.3%</td>
<td>-2.0%</td>
<td>55.0%</td>
<td>40.1%</td>
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<tr>
<td>2009</td>
<td>2.6%</td>
<td>2.7%</td>
<td>2.4%</td>
<td>-2.1%</td>
<td>57.6%</td>
<td>42.2%</td>
</tr>
<tr>
<td>2010</td>
<td>3.5%</td>
<td>2.8%</td>
<td>2.5%</td>
<td>-2.2%</td>
<td>60.1%</td>
<td>44.3%</td>
</tr>
<tr>
<td>2011</td>
<td>4.3%</td>
<td>2.9%</td>
<td>2.6%</td>
<td>-2.3%</td>
<td>62.6%</td>
<td>46.4%</td>
</tr>
<tr>
<td>2012</td>
<td>4.4%</td>
<td>3.0%</td>
<td>2.7%</td>
<td>-2.4%</td>
<td>65.1%</td>
<td>48.5%</td>
</tr>
<tr>
<td>2013</td>
<td>4.4%</td>
<td>3.1%</td>
<td>2.8%</td>
<td>-2.5%</td>
<td>67.6%</td>
<td>50.6%</td>
</tr>
<tr>
<td>2014</td>
<td>4.4%</td>
<td>3.2%</td>
<td>2.9%</td>
<td>-2.6%</td>
<td>70.1%</td>
<td>52.7%</td>
</tr>
<tr>
<td>2015</td>
<td>4.4%</td>
<td>3.3%</td>
<td>3.0%</td>
<td>-2.7%</td>
<td>72.6%</td>
<td>54.8%</td>
</tr>
<tr>
<td>2016</td>
<td>4.3%</td>
<td>3.4%</td>
<td>3.1%</td>
<td>-2.8%</td>
<td>75.1%</td>
<td>56.9%</td>
</tr>
<tr>
<td>2017</td>
<td>4.2%</td>
<td>3.5%</td>
<td>3.2%</td>
<td>-2.9%</td>
<td>77.6%</td>
<td>59.0%</td>
</tr>
<tr>
<td>2018</td>
<td>4.1%</td>
<td>3.6%</td>
<td>3.3%</td>
<td>-3.0%</td>
<td>80.1%</td>
<td>61.1%</td>
</tr>
</tbody>
</table>

**Table 2: Additional Figures**

<table>
<thead>
<tr>
<th>Year</th>
<th>1989</th>
<th>1999</th>
<th>2009</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value in Millions</td>
<td>Value in Millions</td>
<td>Value in Millions</td>
<td>Value in Millions</td>
<td></td>
</tr>
<tr>
<td>1989</td>
<td>100</td>
<td>500</td>
<td>1000</td>
<td>1500</td>
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<tr>
<td>1999</td>
<td>200</td>
<td>1000</td>
<td>2000</td>
<td>3000</td>
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<tr>
<td>2009</td>
<td>400</td>
<td>3000</td>
<td>5000</td>
<td>7000</td>
</tr>
<tr>
<td>2018</td>
<td>800</td>
<td>7000</td>
<td>10000</td>
<td>15000</td>
</tr>
</tbody>
</table>
Appendix B: Additional Tables and Figures

Figure B1. Respondents’ respective industries, ranked by frequency (n=156).