# DEFINING INDIVIDUAL GLOBAL COMPETITIVENESS:

# A MIXED METHODS STUDY OF CONTRIBUTING GLOBAL MIND-SET COMPONENTS

By;

James A. Gordon

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ProQuest LLC.
789 East Eisenhower Parkway
P.O. Box 1346
Ann Arbor, MI 48106 - 1346

This dissertation written by:

James A. Gordon

Under the guidance of a Faculty Committee approved by its members, has been submitted to and accepted by the Graduate Faculty in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

October 25th, 2013

Faculty Committee

_____
Kenneth Rauch, Ed.D. – Committee Chairperson
Director of Ph.D. in Global Leadership
Indiana Institute of Technology

_____
Samir Moussalli, Ph.D. – Committee Member
Associate Professor of Global Leadership
Indiana Institute of Technology

_____
Mary Bradshaw, Ed.D. – Committee Member
Professor of Global Leadership
Indiana Institute of Technology

## ABSTRACT

Higher education institutions have been adding global contexts to their mission/vision statements, strategic plans, objectives, and initiatives in an effort to meet the needs of organizations dealing with the phenomenon known as globalization. Phrases such as "ensuring our students are globally competitive," "international competitiveness," "success in a highly competitive global and technological marketplace," "global perspective," and "global competency" are becoming more common within higher education. Organizations are looking to higher education institutions to fill the need of future leaders with the leadership competencies required to manage effectively in a rapidly changing global environment. The purpose of this study was to explore and to better understand the concept of individual global competitiveness from the perspective of academic business and technology professionals from around the world. The study was commissioned to evaluate the eighteen factors extracted from the three theoretical models identified during the literature review process and to determine the importance of these factors to the development of an individual's global competitiveness. The three basic research questions were: 1) How do academic business and technology professionals around the world define the term "individual global competitiveness"?; 2) What components from the three models are critical to influence, increase, or change an individual's global competitiveness?; 3) What other factors, not represented in the three models, influence, increase, change, and define an individual's global competiveness? A mixed methods study was conducted, which consisted of an online survey and face-to-face interviews conducted at a conference in Helsinki, Finland. For the qualitative portion of the study, structured interviews were utilized which consisted of ten questions

around the eighteen factors identified from the three theoretical models. The analysis of both data sets indicated three overriding factors that emerged during the study as essential to an individual's global competitiveness: communication/language, collaborating/sharing, and adaptability. The results from the research indicate that it takes more than simply having a global mind-set for an individual to be globally competitive, that the ability to communicate, to collaborate, and to be adaptable are even more paramount and therefore need to be embedded into the context, curriculum, and culture of higher education institutions.

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## TABLE OF CONTENTS

# LIST OF FIGURES

## LIST OF TABLES

## Chapter 1: Introduction to Study

As the world becomes flatter and progressively interconnected, there is a growing need for effective global leadership. Researchers have suggested that global leaders in organizations must adapt, grow, evolve, and prepare for the future challenges of globalization (McGuire, Palus, Pasmore, & Rhodes, 2009). Asree (2010) defined globalization as "the worldwide involvement of technological, economic, political and cultural exchanges" (p. 7). The development of employee's global acumen is the key for organizations that want to be globally competitive in today's marketplace. As a result, more higher education institutions are investigating what it means to be globally competitive (Ivy Tech Community College, 2011). With that, several questions arise: How have higher education institutions defined global competitiveness? What does it mean to be globally ready? What knowledge, skills, abilities are necessary for global leaders to be competitive in today's marketplace?

As higher education institutions are chartered to prepare students to be globally competitive, further research is needed on the definition and the practical application of global leadership skills and the development of global leadership competencies. Ivy Tech Community College (2011), Indiana's state-wide community college system, has defined a globally competitive individual as "one that is well-educated and able to rapidly adapt to and compete effectively within a changing worldwide labor market" (p.2). For the purpose of this research, this definition is sufficient, yet it will be adjusted as a result of this study. The specific knowledge, skills, abilities, attitudes, competencies, and antecedents that are necessary for global leaders to be competitive in today's marketplace will need to be added. Goldsmith, Govindarajan, Kaye, and Vicere (2003) affirmed that

having a global mind-set is also critical for global leaders in order for companies to be successful in the 21st century.

The concept of a global mind-set has been around for years and is considered to be one of the key components for successful global leaders (Earley, Murnieks, & Mosakowski, 2007). Global mind-set is defined as

> the stock of (1) knowledge, (2) cognitive, and (3) psychological attributes that enable a global leader to influence individuals, groups, and organizations (inside and outside the boundaries of the global organization) representing diverse cultural/political/institutional systems to contribute toward the achievement of the global organization's goals. (Beechler & Javidan, 2007, p. 154)

Javidan, Steers and Hitt (2007) presented three components that compromise an individual's global mindset: intellectual, social, and psychological capital (Figure 1).

Ananthram, Pick, and Issa (2012) added to the global mind-set research by concluding that there are cultural nuances to an individual's global mind-set. The researchers tested six antecedent characteristics and their relationship to global mind-set (Figure 1.2); the results indicated that four of the six antecedents were significant to a manager's global mindset (Ananthram, Pick, & Issa, 2012). Although this research is important, a critical question still remains: How does global mind-set and the antecedents contribute to global competiveness?

Further review of the literature on global mind-set reveals many theories, definitions, and models that are thought to address this question (see Appendix A and Appendix B), yet more focused research is needed. For example, Mendenhall, Bird, Osland, Oddou, and Maznevski (2008) conducted an extensive literature review of

empirical and non-empirical research and narrowed 56 categories of global leadership competencies to five: system skills, interpersonal skills, attitudes and orientations, threshold traits, and global knowledge. However, no clear connection on how or if having strength in these five categories make someone more globally competitive. All three of the previously mentioned studies will be the theoretical foundation for this study.

The current research study focused primarily on the components of the three theoretical models from the studies listed above in order to identify critical contributing factors to global competitiveness. The identification of these critical factors was accomplished by assessing the perspectives of international academic professionals in business and technology. Additionally, the research established a working definition of the term "individual global competitiveness."

Ungson and Wong (2008) concluded that "competitors are much more varied than before; they come from different parts of the world; they bring in different business models. Because competition is much more intense, it's hard to maintain and sustain the competitive advantage" (p.6). Beechler and Javidan (2007) agreed that organizational leaders need to develop a global mind-set as well as a global acumen, but a better understanding of what it takes to be globally competitive is needed. The current study presents a research method and design to identify the critical components and definition of global competitiveness in order to advance this ever-important topic.

## Problem Statement

Though the world may seem like a very large place at times, the reality is that technology and innovation are causing the world to metaphorically shrink. In relation to globalization, Friedman (MIT, 2005) presented the idea of the world being flat and

offered ten flatteners that have contributed to this globalizing trend. All of these "flatteners" have essentially put globalization into hyper-drive and have created a global marketplace as if oceans and boundaries did not exist. Organizations, especially higher education institutions, must believe that Friedman's hypothesis is true, as they have been adding global context to their mission/vision statements, strategic plans, objectives, and initiatives to deal with this phenomenon (Appendix C).

Even though mission statements, strategic plans, and objectives are common terms in today's business lingo, there is still a great deal of uncertainty and lack of agreement as to what the term global strategy really means (Bartlett & Ghoshal, 2002), especially in the higher education arena. As early as 1994, Zou defined global strategy as the way a business competes in the global marketplace and is considered vital to the success and/or failure of businesses in the 21st century. Ungson and Wong (2008) expanded the definition to include intercountry coordination and integration, which links markets, technology, and operations and exploits resources to achieve superior performance that ultimately leads to a global competitive advantage.

In order to achieve a global competitive advantage, organizations need leaders with the leadership competencies required to manage effectively in a rapidly changing global environment. Rosenberg (2010) concurred that today's leaders will face unprecedented and unpredictable change. In addition, Jiang (2006) agreed that organizations must have leaders who do more than just master intercultural competencies. Ungson and Wong (2008) added that the most critical attributes of the next generation of leaders are having passion, a vision, and a global mind-set. Consequently, future leaders

not only need to have these global leadership skills, but also the ability to be globally competitive in a complex and unpredictable environment.

The need for future leaders, which includes students, employees, and current leaders, is increasing and will only continue to grow. Most experts are not surprised that a majority of people do not have a global mind-set (Swain, 2007). Global leaders are in high demand, and based on reports from a majority of Fortune 500 corporations, there is a shortage of leaders with the global skill sets needed to be successful (Javidan, Dorfman, De Luque, & House, 2006). In order to meet the demand for global leaders, Javidan and the Thunderbird Global Mindset Institute (n.d.) created the Global Mindset Inventory instrument to measure and enhance an individual's skill set level. Although researchers agree that a global mind-set is important to developing future global leaders (Earley et al., 2007; Javidan, Teagarden, & Bowen, 2010), there may be more to global competitiveness, than just having a global mind-set.

As mentioned earlier, Ungson and Wong (2008) also identified passion and vision as important components of global competitiveness. Ananthram, Pick and Issa (2012) recognized knowledge and information, risk tolerance, boundary spanning activities, and international experience as important antecedents of global mind-set. Furthermore, Mendenhall, Osland, Bird, and Maznevski (2008) categorized 56 themes into five categories of global leadership development that are critical to global competitiveness, although these categories seem to overlap with the results from the other studies. The components of the global leadership development model created by Mendenhall, Bird, Osland, Oddou, and Maznevski (2008) that will be considered in the current study are: system skills, interpersonal skills, attitudes and orientations, threshold traits, and global

knowledge. Therefore, with all the overlapping components from different research (Table 1.1), there is a need to better understand and identify the critical components and antecedents that define an individual's global competitiveness.

Table 1.1

*Global Competitiveness Components Matrix*

| Global Leadership | Antecedents of Global Mind-Set | Competencies Global Mind-Set |
|---|---|---|
| System Skills | | |
| Leading Change | | |
| Fostering Innovation | | Risk Tolerance |
| Complex Ethical Decisions | | |
| Influencing Stakeholders | SC – Intercultural Empathy | |
| Architecting | | |
| Building Community/ Social Capital | SC – Diplomacy | Boundary Spanning |
| Interpersonal Skills | SC – Interpersonal Impact | Skills and Ability |
| Mindful Communication | | |
| Create & Build Trust | | |
| Multicultural Teaming | | International Experience |
| Attitudes & Orientations | | |
| Global Mindset | IC – Global Business Savvy | |
| Cognitive Complexity | IC – Cognitive Complexity | Global Identity |
| Cosmopolitan | IC – Cosmopolitan Outlook | |
| Threshold Traits | | |
| Integrity | PC – Self-Assurance | |
| Humility | | |
| Inquisitiveness | PC – Quest for Adventure | |
| Resilience | PC – Passion for Diversity | |
| Global Knowledge | | Knowledge/Information |

*Note*. SC - Social Capital, IC – Intellectual Capital, PC – Psychological Capital

Once identified, these critical components need to be utilized to create a comprehensive definition of global competitiveness. Currently, higher education

institutions are trying to address and wade through the phenomenon referred to as globalization (Xin Jiang, 2012), yet it is being done without a standard definition of global competitiveness. Therefore, investigating the perception of academic professionals in the fields of business and technology can aid in the identification of the components of global competiveness as well as the discovery of a working definition of the term.

## Purpose of Study

The purpose of this study is to explore and to better understand the concept of individual global competitiveness from the perspective of academic business and technology professionals from around the world. In addition, this study has helped identify the critical components of three theoretical models and their importance to the development of an individual's global competitiveness. These critical components were then used to create a geocentric definition of individual global competitiveness that higher education institutions will be able to utilize in developing future strategies. This research will be a building block and a resource that organizations and higher education institutions alike can use to better understand the complexities of what it means to be global competitive. Furthermore, as a building block, it can be used to develop more useful training and development tools, more accurate measuring instruments, and more insightful empirical research.

## Definitions

*Acumen* is defined as "keenness and depth of perception, especially in practical matters" (Charan, 2006, p. 3)

*Compete* is defined as "to strive to outdo another for acknowledgement, a prize, supremacy, profit, etc.; engage in a contest" (Dictionary.com, n.d.).

*Competitiveness* is defined as "the set of institutions, policies, and factors that determine the level of productivity of a country" (Sala-i-Martin et al., 2012, p. 4).

*Global leader/leadership* is defined as "individuals who effect significant positive change in organizations by building communities through the development of trust and the arrangement of organizational structures and processes in a context involving multiple cross-boundary stakeholders, multiple sources of external cross-boundary authority, and multiple cultures under conditions of temporal, geographical, and cultural complexity" (Mendenhall et al., 2008, p. 17).

*Global mindset* is "the stock of (1) knowledge, (2) cognitive, and (3) psychological attributes that enable a global leader to influence individuals, groups, and organizations (inside and outside the boundaries of the global organization) representing diverse cultural/political/institutional systems to contribute toward the achievement of the global organization's goals" (Beechler & Javidan, 2007, p. 154).

*Global strategy* is defined as the way a business competes in the global marketplace and is considered vital to the success and/or failure of businesses in the 21st century (Zou, 1994). Ungson and Wong (2008) enhanced the definition, adding cross country coordination and integration, which links markets, technology, and operations exploiting resources to achieve superior performance ultimately leading to a global competitive advantage.

*Globalization* is defined as "the worldwide involvement of technological, economic, political and cultural exchanges" (Asree, 2010, p. 7).

*Globally competitive individual* is defined as "one that is well-educated and able to rapidly adapt to and compete effectively within a changing worldwide labor market" (Ivy Tech Community College, 2011, p. 2).

*Internationalization* is defined as "the process of integrating an international, intercultural, or global dimension into the purpose, functions of delivery of post-secondary education" (Knight, 2003, p. 2).

## Theoretical Framework

Theory and theory advancement are crucial to the empirical research process in order to provide frameworks, efficiently develop the field of study, and apply to real world problem (Wacker, 2008). Wacker (2008) also stated that the difference between a theory and a "good" theory is the level to which the conceptual relationships are fully explained. In the current study, how a global mind-set, global mind-set antecedents, and global leadership competencies contribute to an individual's global competitiveness will be explored to help higher education institutions prepare students for a globalized 21st century.

Although different theoretical models have been constructed on global leadership development and global mindset, three models and their corresponding theories need to be analyzed more closely. Thunderbird Global Mindset Institute Team (n.d.) developed the first global mind-set model (Figure 1.1) that was supported by empirical research. In this model, the three components that compromise an individual's global mindset are intellectual, social and psychological capital (Javidan et al., 2010). More specifically, intellectual capital has to do with general knowledge, psychological capital has to do with openness to differences, and social capital has to do with building trusting relationships.


*Figure 1.1*: Global mind-set model (Thunderbird Global Mindset Institute Team, n.d.)

In comparison, Ananthram, Pick, and Issa (2012) offered the second theoretical model in Figure 1.2, which presented additional antecedents that could impact an individual's global mindset. The researchers identified four antecedents that could also be critical to an individual's global mind-set. Specifically, knowledge and information, risk tolerance, boundary spanning activities, and international experience were all considered important cultural nuances. Therefore, generalizations have been made throughout research on the importance of developing a global mind-set (Javidan & Teagarden, 2011) and developing global mind-set antecedents to be successful in the new global environment, but limited research has been conducted on the critical components contributing to an individual becoming globally competitive.

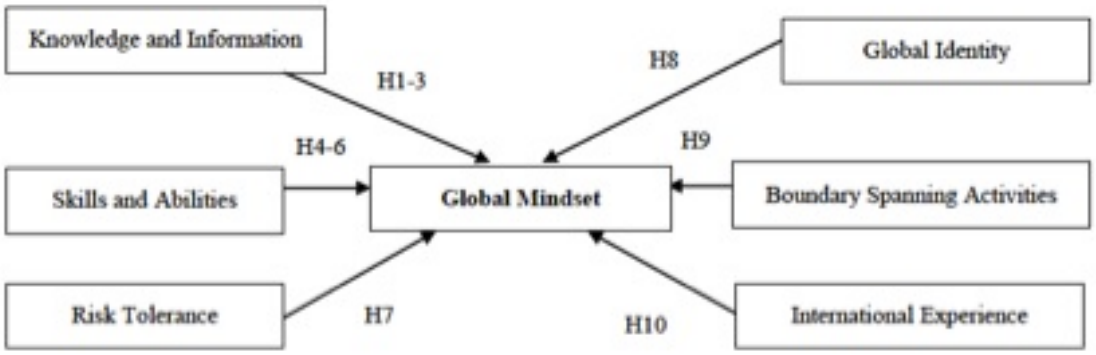


*Figure 1.2:* A conceptual framework. Antecedents of a global mindset (Ananthram et al., 2012)

The third model in Figure 1.3 established five core categories of global leadership through the review of empirical and non-empirical research (Mendenhall et al., 2008). The researchers conducted extensive reviews and realized 56 emerging categories of global leadership competencies. They were able to narrow down these categories to five: system skills, interpersonal skills, attitudes and orientations, threshold traits, and global knowledge. All three models have unique as well as overlapping components that will need to be taken into consideration during the study.

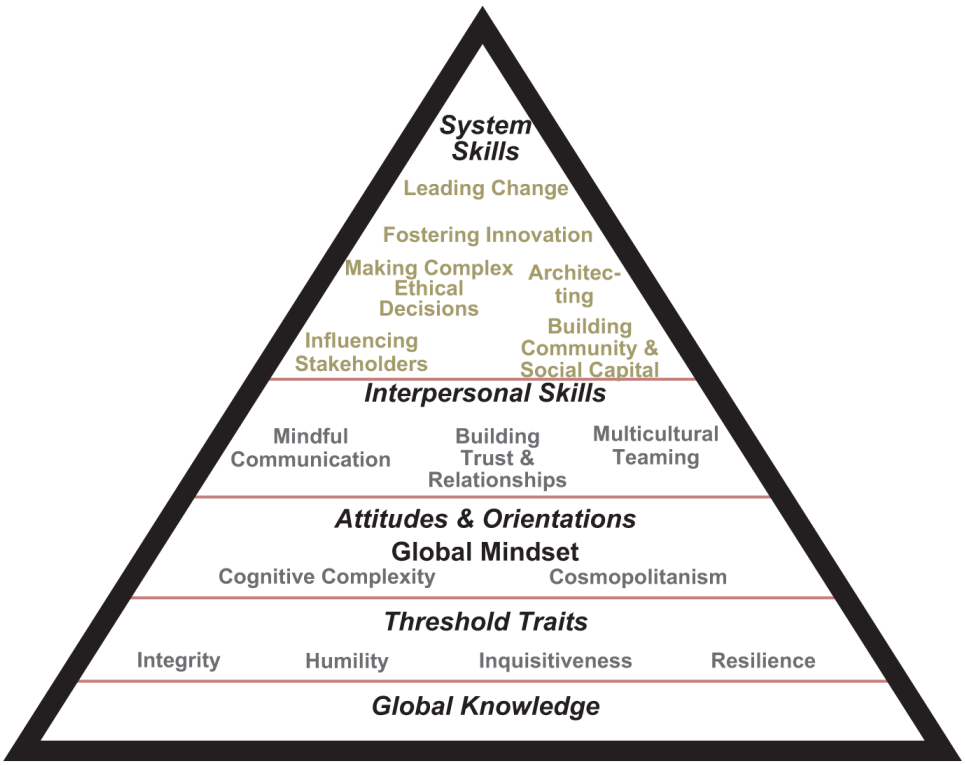


*Figure 1.3:* Pyramid model of global leadership (Mendenhall et al., 2008)

**Theory Description**

This study assumed that not all components and antecedents of global mind-set or global leadership development are important to an individual's global competitiveness. In theory, cultural clusters will value these antecedents differently and what might be perceived as being important to one culture may not be perceived as being important to another culture. Although research has generalized that global mind-set will make individuals more responsible global business leaders (Pless, Maak, & Stahl, 2011), there is no evidence that fully explains the importance or lack of importance of the individual components and antecedents with regard to global competitiveness.

The epistemology of global leadership competencies, global mind-set, and global competitiveness is relatively new. Yet, these subjects have been identified in several

different empirical studies as key strengths of successful global leaders (Bueno & Tubbs, 2004; Mendenhall et al., 2008). The perception is that a global mind-set is the gateway to successful global leadership (Javidan et al., 2006); however, a gap in the research is the identification of the exact components and antecedents of global mind-set or components of the global leadership pyramid that are critical to developing global competitiveness at the individual level.

**Theory Evaluation**

An analysis of the literature has indicated that global mind-set, knowledge/information, risk tolerance, boundary spanning activities, and international experience are part of a framework that can recapitulate the components necessary to be an effective global leader (Ananthram et al., 2012; Goldsmith et al., 2003; Mendenhall et al., 2008). The researchers then created conceptual frameworks and conclusions that were drawn based off of the respective findings. Although the theory of global mind-set has been tested with empirical research (Thunderbird Global Mindset Institute Team, n.d.), researchers have found that other identified antecedents may be important depending on cultural nuances (Ananthram et al., 2012). Thus, the theories of global mind-set are very new, complex, and confusing at best.

The scope of the two theories on global mind-set being utilized in the proposed research is very broad, yet very narrow. The global mind-set model (Figure 1.1) is very broad because it has been tested on thousands of managers from around the world (Thunderbird Global Mindset Institute Team, n.d.), while the conceptual model of antecedents to global mindset (Figure 1.2) is very narrow because the research only focused on Indian, Chinese, and Japanese managers (Ananthram et al., 2012). The third

model (Figure 1.3) from Mendenhall and his colleagues actually encompasses global mind-set as one of its components. Thus, the overlapping elements are one thing that causes part of the confusion with the different theories.

Additionally, there is uncertainty on the transferability of the claims made in some of the theories. For example, Javidan and his colleagues (2010) have claimed that managers with high Global Mind-Set Inventory scores performed "positively" with their own company's performance management system. This statement in itself leads to a lot of further questions. If students in higher education score high on the Global Mind-Set Inventory, does this or will this equate to the student being a successful global leader? Furthermore, will this predict if they will be competitive in the global economy? Although the global mind-set theory and model can be considered to be highly parsimonious, it can also be considered too simplistic for the complexity of the topic. Maznevski and Lane (2004) concurred that new globalization constructs must allow for continuous change at the individual and the environmental level.

## Philosophical Assumptions

As supercomputers get faster and the ability to communicate across cultures becomes easier, geographical boundaries are disappearing. Though oceans are not going anywhere, they are no longer considered barriers in the global marketplace. A company's global strategy must include emerging markets like China and India. Philosophical assumptions are nothing more than the way the world is viewed and theorized (Engler, 2008). The assumptions of this research are that globalization is an enduring process and the world is, as Friedman (2007) described, flat.

## Chapter 2: Literature Review

The word "competition" is a derivative of the word "competes," the definition of which is "to strive to outdo another for acknowledgement, a prize, supremacy, profit, etc.; engage in a contest" (Dictionary.com, n.d.). Humans are taught how to compete with others from a very early age and the behavior continues throughout life. Children compete in sporting events; teenagers compete to get into universities; universities compete for the best students; college graduates compete for jobs; employees compete for promotions; companies compete to stay in business; and countries compete to stay financially solvent. The question still remains, why is competing so important to people?

Competing is not only engrained into our culture, it is the driving force behind advancements in innovation and technology. Competition is the quintessential reason for innovation and growth in industry, trade, e-commerce, education, and health care (Ahn, 2002). Without competition, what would happen to the world? Some researchers believe that countries and industries could be successful by utilizing both cooperation and competition (Cason & Gangadharan, 2012). Although this may be a valid consideration, the scope of this study is to focus on the competition component.

The World Economic Forum (WEF) created the Global Competitiveness Index (GCI) and defined competitiveness as "the set of institutions, policies, and factors that determine the level of productivity of a country" (Sala-i-Martin et al., 2012, p. 4). The GCI is nothing more than a measurement tool, index, and ranking system used to benchmark the critical components of a country's competitiveness (Sala-i-Martin et al., 2012). As the world becomes flatter and increasingly interconnected, more government officials are asking questions about maintaining their global competitiveness. Ungson

and Wong (2008) stated that competition comes from all over the world and is much more formidable today compared to the past, which makes it more difficult to maintain a competitive advantage. But, what does it mean to have a competitive advantage?

## What is a Competitive Advantage?

Govindarajan and Gupta (2001) claimed that, in order for global companies to have a competitive advantage, they must have the ability to organize resources and information across different geographic locations. The most effective companies have demonstrated the ability to develop global teams that work with different cultures and different business functions. This ability is a global leader's mind-set, or what Javidan and his colleagues have coined "global mind-set" (Javidan, Steers, & Hitt, 2007).

### Global Mind-Set

A global mind-set consists of one's thought process concerning the global marketplace. No longer can an organization's employees or an individual rely on their ignorance of other cultures as an excuse. Sheridan (2005) recognized a growing need for U.S. business leaders to develop a global mindset, world knowledge, and intercultural skills. Leaders at all levels of a global organization must have the skill sets required to work across cultural boundaries.

The global mind-set consists of three components needed for success in the world market: intellectual, psychological, and social capital (Javidan et al., 2010). These three major components each have three sub-categories. The components and sub-components are listed in Table 2.1.

Table 2.1

*Global Mind-Set Components/Sub-Components*

| Intellectual Capital | Psychological Capital | Social Capital |
|---|---|---|
| Cognitive Complexity | Self-Assurance | Diplomacy |
| Cosmopolitan Outlook | Quest for Adventure | Intercultural Empathy |
| Global Business Savvy | Passion for Diversity | Interpersonal Impact |

Although global mind-set has been presented as a competitive advantage, the importance of the individual components towards being globally competitive is lacking empirical research. The epistemology of global mind-set, global competitive advantage, and global competitiveness is relatively new, and therefore, more research is needed. Research clearly establishes different levels of global competitiveness, as noted in Table 2.1. Furthermore, each level of global competitiveness, except the individual level, has a measurement tool that can be utilized for comparisons or to create a relative ranking system (Hazelkorn, 2013; Javidan, Steers, & Hitt, 2007; Sala-i-Martin et al., 2012).

Table 2.2

*Global Competitiveness Level / Measurement Tool Matrix*

| Level | Perspective | Measurement |
|---|---|---|
| National | Countries | Global Competitiveness Index (GCI) (Sala-i-Martin et al., 2012) |
| Business | Global Leaders | Global Mind-Set Inventory (GMI) (Javidan, Steers, Hitt, et al., 2007) |
| Institutional | Higher Education | American Rankings of World Universities (ARWU) (Hazelkorn, 2013) |
| Individual | Students | No measurement available |

## Levels of Global Competitiveness

The subject of global competitiveness provides a wide range of perspectives to consider from the macro level, the national perspective, to the micro level, the student perspective. Current literature seems to group global competitiveness into four distinctive levels:

1. National level (countries competing with other countries),
2. Business level (businesses competing with other businesses),
3. Institutional level (higher education institutions competing against each other), and
4. Student level (students competing with other students).

Although these are not specifically identified in scholarly literature, these categories emerged via the review process and, therefore, are reviewed in more detail.

### The National Level

Global competitiveness is a term that is most commonly used when describing the macroeconomic foundation of a country in relation to the rest of the world (Sala-i-Martin et al., 2012). Specifically, the macroeconomic foundation includes attributes associated with the political, legal, and social reforms critical to the daily operations of a country (Cetindamar & Kilitcioglu, 2013). At the national level, the Global Competitiveness Index (GCI) can be utilized to compare countries based on different criteria. Utilizing this criteria, countries are then ranked against other countries (Sala-i-Martin et al., 2012).

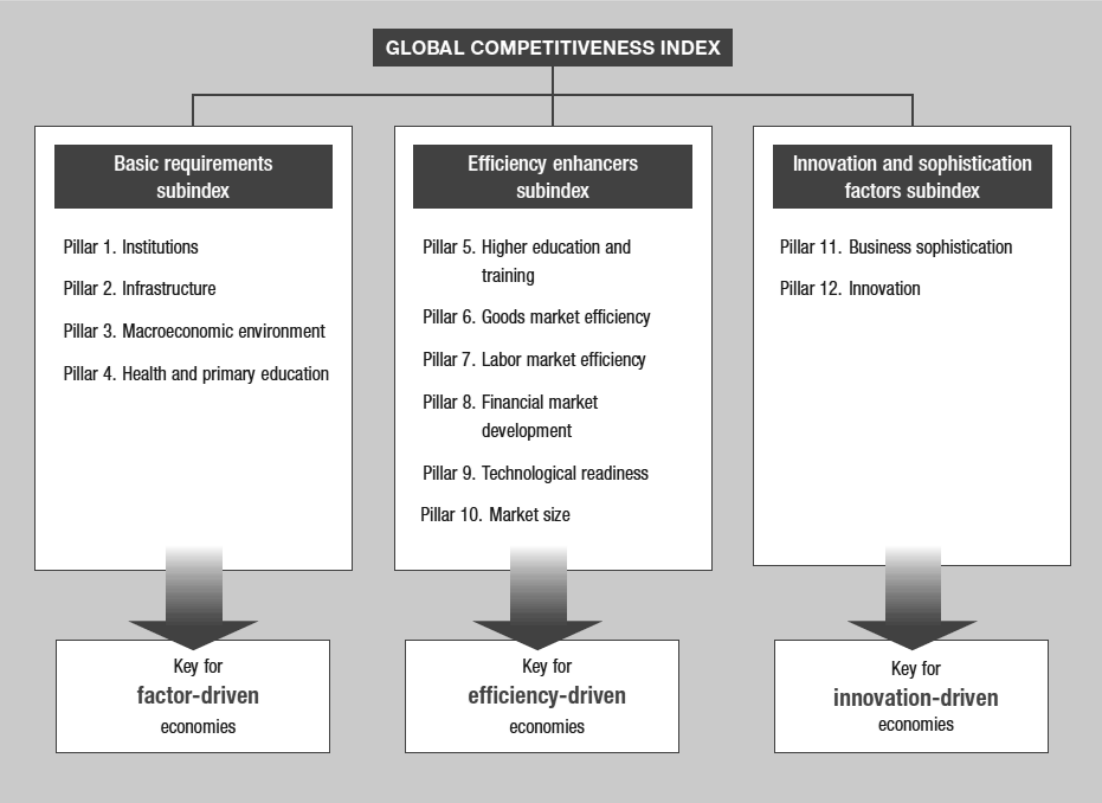


*Figure 2.1:* The global competitiveness index framework (Sala-i-Martin et al., 2012)

**Global Competitiveness Index (GCI)**

The Global Competitiveness Index (GCI) was created by the World Economic Forum (WEF) to compare countries based on a variety of attributes related to their economic strength and growth (Xia, Liang, Zhang, & Wu, 2012). The GCI is broken down into 12 key pillars (Figure 1.2).

The 12 pillars are broken into three stages of development based on GDP per capita, and the stages are weighted accordingly (Sala-i-Martin et al., 2012). As noted in Figure 1.2, factors affecting the business level of global competitiveness are spread across all three categories. Therefore, the decisions made at the national (macroeconomic) level influence the performance at the business (microeconomic) level

and vice versa, thus it is important to understand the business level of global competitiveness (Xia et al., 2012).

## The Business Level

In order to achieve a global competitive advantage, organizations need to have leaders with the global leadership competencies required to manage in a rapidly changing environment. Rosenberg (2010) concurred that today's leaders face unprecedented and unpredictable change. In addition, Jiang (2006) agreed that organizations must have leaders who do more than master intercultural competencies. Ungson and Wong (2008) added that the most critical attributes of the next generation of leaders are having passion, vision, and a global mind-set. Consequently, there is a need for future leaders to have global leadership skills as well the ability to be globally competitive in a complex and unpredictable environment.

The links between levels are important as the definition of global competitiveness is narrowed down from the national to the business to the institutional to the student level. Although all 12 pillars are independent, they are connected under the umbrella of global competitiveness. As countries advance through the innovation and sophistication factors sub index (Figure 2.1), businesses must be able to function across borders and around the world. In other words, businesses and business leaders will be required to function in the global environment in order to increase a country's GCI. Therefore, globalization and technology have resulted in the need for a leadership competency paradigm shift (Bueno & Tubbs, 2004).

This leadership paradigm shift is what Javidan, Steers, and Hitt (2007) referred to as having a global mind-set. So, what is a global mind-set? The Thunderbird Global

Mindset Institution Team (n.d.) defined global mind-set as "a set of individual characteristics that help global leaders better influence individuals, groups, and organizations that are unlike them" (p. 1). Furthermore, Javidan, Steers, and Hitt (2007) concluded that the global mind-set construct is a combination of three components: intellectual capital, psychological capital, and social capital (Figure 1.1). These components have been identified in several empirical studies as key ingredients to becoming a successful global leader (Bueno & Tubbs, 2004; Mendenhall et al., 2008). A person's intelligence, cognitive ability, and psychological attributes are what comprise that individual's global mindset and give them the ability to become leaders in culturally diverse environments. Javidan et al. (2006) claimed that global mind-set is the gateway to successful global leadership.

So, how do businesses develop the global mind-set of leaders within their organization in order to become more globally competitive? Javidan and his colleagues believe the answer lies within the Global Mindset Inventory. The Global Mind-Set Inventory is utilized to measure and develop leaders in order to make them more successful in a global world (Javidan et al., 2010).

**Global Mind-Set Inventory (GMI)**

A global mindset consists of one's thought process concerning the global marketplace. No longer can an organization or an individual rely on their ignorance of other cultures as an excuse. Sheridan (2005) recognized a growing need for U.S. business leaders to develop a global mindset, world knowledge, and intercultural skills. Leaders at all levels of an organization must have the skill sets required to work across cultural boundaries. The Global Mind-Set Inventory consist of 76 questions to measure

and verify if an individual holds the critical attributes required to be a successful global leader (Javidan et al., 2010).

Businesses have identified the Global Mind-set Inventory as a means to measure and develop global leaders in the workforce, but this measurement tool does not transfer to the institutional level. Institutions have their own criteria to take into consideration on what it means to be globally competitive. Therefore, higher education institutions have addressed the globalization dilemma from a different perspective and with a different approach.

## The Institutional Level

As noted in Figure 2.1, higher education and training are identified as pillar 5 in the GCI and fall under the efficiency enhancers sub index. Thus, a clear connection can be made between the importance of higher education and the global competitiveness of a country. Additionally, a connection can be made with the business level as college graduates are entering the workforce as the next generation of global leaders; therefore it is imperative that they are prepared for the challenge of globalization that is ahead of them.

Currently, higher education institutions are trying to address and wade through the phenomenon referred to as globalization (Xin Jiang, 2012). The response to this phenomenon is what higher education institutions are referring to as "internationalization". In an effort to respond to the demands globalization is placing upon current pedagogies, higher education institutions are incorporating strategies and objectives without fully understanding the phenomenon (Xin Jiang, 2012).

Some of the initial strategies from higher education have been the retooling of study abroad programs (SAPs). Although SAPs can be one strategy used to increase a student's global competencies, they must be implemented properly to be effective. According to Ares (2006), participating in an SAP improved students' intercultural proficiency, openness to cultural diversity, and global mindedness. However, Matta (2010) concluded that SAPs do not substantiate an institution's commitment to an overall comprehensive internationalization process. Other initiatives need to be implemented into the campus-wide curriculum in order to address the other competencies important to becoming globally competitive. In order to achieve this, a clearer understanding of global competitiveness needs to be achieved.

**Academic Ranking of World Universities (ARWU)**

One measurement device used to rank universities from around the world is called the Academic Ranking of World Universities (ARWU) (Hazelkorn, 2013). Other higher education institutional global ranking programs include World University Ranking, World's Best Colleges and Universities, Global University Rankings, Top University Rankings, and World University Rankings. Key indicators in the ranking metrics are internationalization, reputation, and publications (Hazelkorn, 2013). Countries depend on businesses and institutions in order to increase their global competitiveness, and higher education institutions develop students to give employers a competitive advantage. Although the Global Mind-Set Inventory is used to develop global leaders in the business world, an independent measurement and development tool needs to be created and utilized at the student level.

## The Individual Level

Ivy Tech Community College's strategic plan has defined a globally competitive individual as "one that is well-educated and able to rapidly adapt to and compete effectively within a changing worldwide labor market" (Ivy Tech Community College, 2011, p. 2). Although this may be a good starting point, this definition does not clearly communicate the complexity of this term. In order for higher education institutions to implement internationalization into their systems, a complete and accurate definition of individual global competitiveness must be formed and used. The definition offered by Ivy Tech is not sufficient: What is "well-educated"? What does it mean for someone to "adapt rapidly"? A quick web search revealed that Ivy Tech's definition was simply pulled or compiled through other websites without much effort or thought. Thus, the real problem is that the definition used by Ivy Tech does not communicate the complexity of multiplicity, interdependence, ambiguity, and flux as described by Bird (2013). These descriptors themselves show the magnitude of what the definition needs to include. Therefore, before creating a geocentric definition of the term globally competitive individual, a thorough evaluation of its key components should be considered.

### The Missing Index

Although measurement and ranking tools have been identified and utilized at the different levels of global competitiveness as identified in Table 2.2, a measurement tool is lacking at the student level. In order for higher education institutions to ensure that the implementation process of internationalization is effective, some type of pre- and posttest is needed for students. Building upon this proposed research, a follow-up study will need

to include the creation of an Individual Global Competitiveness Index (IGCI) specifically for students in higher education institutions.

## Gaps in the Literature

Current research in the area of global mind-set, global leadership competencies, and global competitiveness is gaining momentum (Ananthram et al., 2012; Javidan & Teagarden, 2011; Mendenhall, Oddou, Osland, Bird, & Maznevski, 2012), but the 21st century and the global marketplace are here. The most effective companies have already demonstrated the ability to develop global teams working with different cultures across different business functions. Yet, higher education institutions are still trying to figure out how to internationalize their campuses and curriculum to address the phenomenon known as globalization. Higher education institutions have been chartered with preparing students to be "globally competitive," but there is no clear definition on what this means.

It is up to countries, businesses, and institutions to figure out a way to train, develop, and measure the global readiness level of future leaders. In order to achieve a global competitive advantage, organizations need to have leaders with the global leadership competencies required to manage in a rapidly changing environment. Rosenberg (2010) concurred that today's leaders will be faced with unprecedented and unpredictable change. In addition, Jiang (2006) agreed that organizations must have leaders who do more than just master intercultural competencies. Ungson and Wong (2008) added the most critical attributes of the next generation of leaders as passion, vision and having a global mind-set. Consequently, the problem is not only the need for future leaders to have these global leadership skills, but to have the ability to be globally competitive in a complex and unpredictable environment.

Osland and her colleagues (2006) concurred that additional research is needed on the identification of global mindset antecedents and their effectiveness, as well as exploration of different kinds of global mind-set and their relationship to global strategies. Terrell (2011) posited the need for additional research in the areas of "global leadership behaviors, developmental models and training methods" (pp. 116–117). All of these areas are directly or indirectly related to global competitiveness. Emphasis must be placed on discovering influential factors that help change, adapt, develop, and enhance individual global competitiveness.

Developing a global mind-set may be one component of global leadership, but without a comprehensive understanding of how it contributes to global competitiveness, it will be difficult to develop future global leaders. Consequently, higher education institutions need to focus on developing future global leaders by understanding the specific components of global mind-set as well as other factors that provide a competitive advantage in the ever-changing global economy. The missing pieces of knowledge surrounding individual global competitiveness and global mind-set have been identified through this study.

Focusing on perspectives from international academic leaders from the field of business and technology, the purpose of this research is to fill a gap in the literature by defining critical components of global competitiveness in order to develop a working definition of the term individual global competitiveness.

## Significance of the Study

Phrases like "ensuring our students are globally competitive," "cultural diversity," "international competitiveness," "develop engaged global citizen-leaders," "success in a

highly competitive global and technological marketplace," "success in a challenging global society," "global perspective," and "global competency" pepper the mission/vision statements and strategic plans of universities and colleges across the nation (Appendix C). So, why are so many higher education institutions focusing on internationalizing their campuses? The answer is simple: globalization. This in itself is a significant enough reason for this study, yet the importance is much greater.

The ability for any nation to remain globally competitive with other countries depends on its future leaders. Global competitiveness is crucial to the success of organizations as the world flattens and multi-national corporations become the norm rather than the exception. Global leadership is increasingly vital and finding managers with cultural awareness and global experience is not easy (Rifkin, 2006). The ability of higher education institutions to fill this gap is paramount to future success of every nation.

At the end of any research study, researchers must ask themselves, "so what?" The "so what" in this study is the importance of understanding the geocentric definition of individual global competitiveness as defined by and for academic leaders around the world. The heuristic value of this study is that when individuals increase their global mind-set, they become more globally competitive, but the reality is that this may not be true.

**Practical Nature of Research**

The results of this study will be important to scholars and practitioners alike. Although, the study of global competitiveness is still relatively new and requires much more empirical research, it is a topic at the forefront of institutional strategic planning in

higher education (Appendix C). The Global Leadership and Organizational Behavior Effectiveness (GLOBE) study provided a mechanism to measure one's global mind-set, but further research is still needed to identify a conceptual framework that helps identify influencing factors and construct a moving, dynamic, multi-dimensional model that helps develop an individual's global competitiveness.

**Practical Research Application**

Although current global mind-set research is thought provoking and is even being presented as a tool to develop effective global business leaders, it has yet to be operationalized at the higher education level. Also, as higher education institutions are internationalizing their systems, further research is needed on the critical components of global competitiveness at the student level. Specifically, an acceptable definition of individual global competitiveness is needed as well as a conceptual framework that helps identify influencing factors in a moving, dynamic, multi-dimensional model. Consequently, the results of this study could be used to create a conceptual framework in order to advance the internationalization process, develop a global component in current curriculum across departments, and implement an instrument to measure changes in an individual's global competitiveness in higher education institutions. Recent research supports the need for these applications. According to a recent study by Coryell, Durodoye, Wright, Pate, and Nguyen (2012), research is needed on consensus building, collaboration on the internationalization process, and identifying an assessment measurement. As with creating a geocentric definition of global competitiveness, the researchers have identified the complexity and difficulty of implementing a complete and comprehensive internationalization process. The key to success in both of these

challenges is learning from others.

## Research Questions

Academic leaders and faculty need to better understand what the term individual global competitiveness means. The primary research question that needs to be answered is of an exploratory-grounded theory nature. The primary research question for this study is:

1) How do academic business and technology professionals around the world define the term "individual global competitiveness"?

Additional questions associated with the proposed research dealt with the identification of specific components as identified by previous research and, therefore, were considered to be more explanatory in nature. Three current models were used for the formulation of the two additional research questions in this study. The first model is the global mind-set model (Figure 1.1), the second model is antecedents of global mind-set (Figure 1.2), and the third model is the pyramid model of global leadership (Figure 1.3). The other two proposed questions for this study are:

2) What components from the three models are critical to influence, increase, or change an individual's global competitiveness?

3) What other factors, not represented in the three models, influence, increase, change, and define an individual's global competiveness?

The components of Thunderbird's model of global mind-set that will be considered are: psychological capital, social capital, and intellectual capital. In the same respect, the components of Ananthram, Pick, and Issa's (2012) model that will be considered are: knowledge and information, risk tolerance, boundary spanning activities,

and international experience. Finally, the components of Mendenhall, Bird, Osland, Oddou, and Maznevski (2008) that will be considered are: system skills, interpersonal skills, attitudes and orientations, threshold traits, and global knowledge. A matrix has been created (Table 1.1) in order to identify overlapping components.

## Conclusion/Recommendation

Globalization will continue to put pressure on organizations and future leaders to understand how to operate in a complex global business environment in order to remain competitive (Hernez-Broome & Hughes, 2004). The world is interdependent, which means future leaders will need to understand the global trends and the complexity associated with working within this new framework. Jokinen (2005) concluded that research is still needed to understand the relative importance of different global leadership competencies. For this reason, the current research project was designed to advance the understanding of critical competencies of global mind-set that are needed for individuals to be global competitive.

## Chapter 3: Methodology

A mixed methodology study was utilized in order to gain clarity on the definition of individual global competitiveness as well as provide greater validity to the contributing components. This approach to inquiry allowed the researcher to collect, analyze, and interpret both quantitative and qualitative data (Leech & Onwuegbuzie, 2009). Creswell and Clark (2007) concluded that utilizing these methods in tandem strengthens a study. In addition, by using a mixed method research both inductive and deductive reasoning can be utilized (Adams, Raeside, & Khan, 2007).

A social constructivist worldview is the research topic perspective that was used in this study. Specifically, the research endeavored to gain insight based on the knowledge, academic, and life experiences as well as the cultural backgrounds of the participants. The researcher utilized the data gathered from this approach and "develop a theory or pattern of meaning" (Creswell, 2009, p. 8) for the concept referred to as individual global competitiveness.

A sequential strategy was employed for the study's procedural design (Creswell, 2009). In phase one, a survey was used in order to test the research hypotheses. The second phase used a grounded theory method to identify characteristics and factors that may influence (adapt), increase (grow), change (evolve), and define an individual's global competitiveness through face-to-face interviews.

The main purpose of the phase two grounded theory descriptive approach was to identify the meaning of individual global competitiveness and to understand if the components of global mind-set emerge as an important factor of one's global competitiveness. Additionally, the researcher sought out themes that arose with regard to

what makes an individual globally competitive. By using a structured interview process, this grounded theory study endeavored to describe findings through the experiences of the participants, rather than to explain them.

## Restatement of Research Questions

Academic leaders and faculty need to better understand what the term individual global competitiveness means in order to develop effective strategic plans, useful course objectives, and ultimately, competitive future global leaders. The primary research question is of an exploratory-grounded theory nature.

1) How do academic professionals from around the world define the term "individual global competitiveness"?

A qualitative design that is explained in this chapter was used to investigate the research question. In addition, two other research questions were explored during this portion of the research.

The other two research questions concern specific components identified by previous global mind-set and global leadership research, and therefore, are considered to be more explanatory in nature. Three current models will be used for the formulation of the two secondary research questions being presented for this study. The first model is the Global mind-set model (Figure 1.1), the second model is Antecedents of Global Mind-Set (Figure 1.2), and the third model is the Pyramid Model of Global Leadership (Figure 1.3). The other proposed questions for this study are:

2) What components from the three models (Figures 1.1, 1.2, and 1.3) are critical to influence, increase, or change an individual's global competitiveness?

3) What other factors, not represented in the three models, influence, increase, change, and define an individual's global competiveness?

The components of Thunderbird's model of Global Mind-set that will be considered are: psychological capital, social capital, and intellectual capital. In the same respect, the components of Ananthram, Pick, and Issa's (2012) model that will be considered are: knowledge and information, risk tolerance, boundary spanning activities, and international experience. Finally, the components of Mendenhall, Bird, Osland, Oddou, and Maznevski (2008) that will be considered are: system skills, interpersonal skills, attitudes and orientations, threshold traits, and global knowledge. A matrix has been created (Table 1.1) in order to identify overlapping components from the three represented theoretical models.

**Hypotheses**

The overall hypothesis of the quantitative portion of this study is to prove or disprove whether or not all the components of global mind-set (psychological, social, and intellectual capital) contribute to an individual's global competitiveness. The global mind-set model is comprised of three components with each component having three sub-components. The nine components/sub-components of global mind-set are being presented as the hypotheses for the proposed study and will be tested during the quantitative deductive approach of this mixed methods study. A visual representation of the hypotheses is provided in Figure 5.

**Hypothesis 1 – self-assurance**

$H1^{01}$ – There will be no significant difference between cultural clusters for the factor self-assurance

$H1^{a1}$ – There will be a significant difference between cultural clusters for the factor self-assurance

**Hypothesis 2 – quest for adventure**

$H2^{02}$ - There will be no significant difference between cultural clusters for the factor quest for adventure

$H2^{a2}$ - There will be a significant difference between cultural clusters for the factor quest for adventure

**Hypothesis 3 – passion for diversity**

$H3^{03}$ - There will be no significant difference between cultural clusters for the factor passion for diversity

$H3^{a3}$ - There will be a significant difference between cultural clusters for the factor passion for diversity

**Hypothesis 4 - cosmopolitan outlook**

$H4^{04}$ - There will be no significant difference between cultural clusters for the factor cosmopolitan outlook

$H4^{a4}$ - There will be a significant difference between cultural clusters for the factor cosmopolitan outlook

**Hypothesis 5 - cognitive complexity**

$H5^{05}$ - There will be no significant difference between cultural clusters for the factor cognitive complexity

$H5^{a5}$ - There will be a significant difference between cultural clusters for the factor cognitive complexity

**Hypothesis 6 - global business savvy**

$H6^{06}$ - There will be no significant difference between cultural clusters for the factor global business savvy

$H6^{a6}$ - There will be a significant difference between cultural clusters for the factor global business savvy

**Hypothesis 7 - interpersonal impact**

$H7^{07}$ - There will be no significant difference between cultural clusters for the factor interpersonal impact

$H7^{a7}$ - There will be a significant difference between cultural clusters for the factor interpersonal impact

**Hypothesis 8 - diplomacy**

$H8^{08}$ - There will be no significant difference between cultural clusters for the factor diplomacy

$H8^{a8}$ - There will be a significant difference between cultural clusters for the factor diplomacy

**Hypothesis 9 – intercultural empathy**

$H9^{09}$ - There will be no significant difference between cultural clusters for the factor intercultural empathy

$H9^{a9}$ - There will be a significant difference between cultural clusters for the factor intercultural empathy

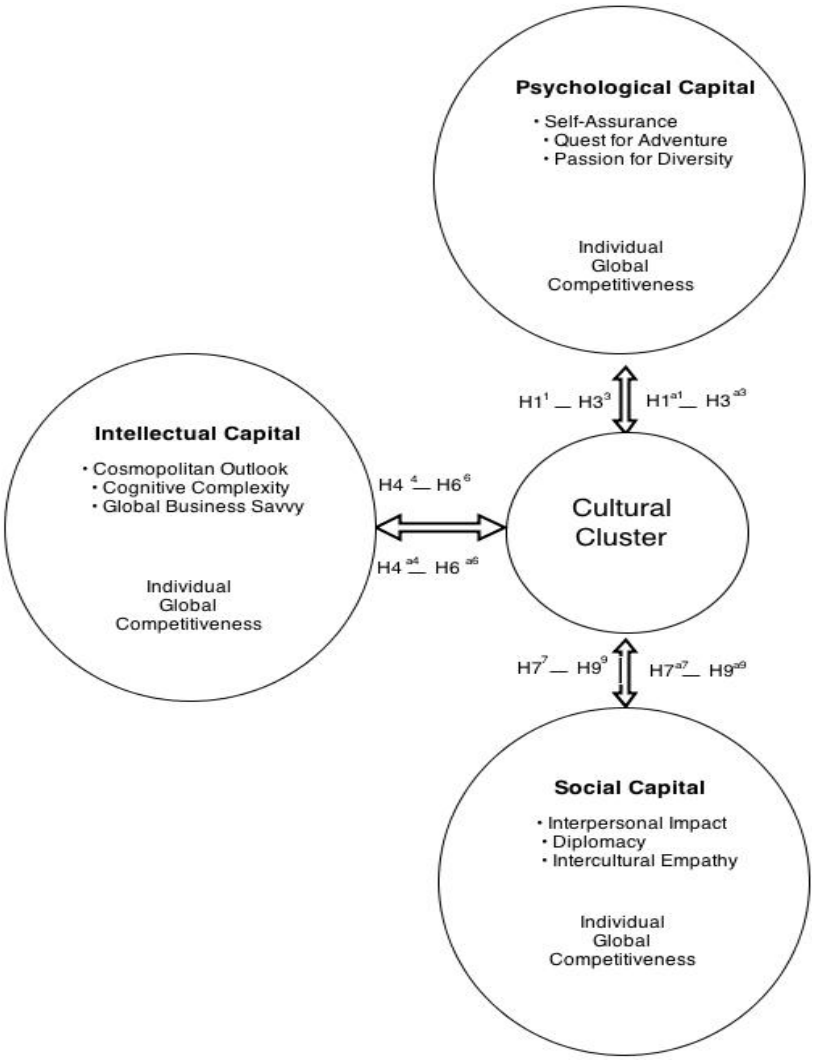


*Figure 3.1.* Hypotheses Model. This figure is a visual representation of the nine hypotheses presented in this research.

## Research Design

### Ethical Standards

Ethical issues are relevant throughout the entire research process, including the research problem, the purpose of the research, the research questions, data collection, analysis, interpretation, and even information dissemination (Creswell, 2009). Joyner and Glatthorn (2005) added three overlying principles that should be taken into consideration at all times: equity, honesty, and humane consideration. Additionally, in

order to ensure ethics are considered throughout the process, most universities utilize research approval processes that usually involve an institutional review board (IRB) (Krathwohl & Smith, 2005). For this research study, Indiana Tech's Institutional Review Board (IRB) reviewed and approved the study before the research began.

**Qualitative Approach - Grounded Theory Study**

A grounded theory study involves data collection at multiple stages in order to compare and categorize emerging themes or characteristics during the process (Creswell, 2009). The process involves collecting data by focusing on the experiences of the participants, then creating hypotheses based off the analysis of the data collected. Grounded theory involves the open process of collecting, coding and analyzing data concurrently. It is a process in which the theory is grounded in or developed from the data being collected (Mills, 2011).

The qualitative approach involves face-to-face interviews with selected candidates to collect information concerning their perspective of individual global competitiveness. Interviewing is utilized as the major source of data collection in a majority of qualitative studies, but grounded theory interviews tend to be more structured in design (Wimpenny & Gass, 2000).

Although there is not a preconceived conceptual framework or hypothesis with a grounded theory methodology, the goal is to generate a theory based on the research topic (Wimpenny & Gass, 2000). Specifically, in this study, the researcher sought out components that contributed to an individual's global competitiveness with the intent of developing a definition as it emerged.

**Quantitative Approach – Nine Hypotheses**

The quantitative approach compared the independent variable of cultural cluster to the dependent variable of the different components identified in the global mind-set inventory. The current study included conducting a web-based survey at the Global Business and Technology Association (GBATA) conference in Helsinki, Finland. The nine hypotheses were empirically investigated by way of independent sample t-test and one-way analysis of variance (as appropriate).

The quantitative approach to the current research project also included a descriptive portion to the research study. Descriptive research involves collecting data in order to test hypotheses or answer questions concerning the current status of the subjects of the study. This portion of the research study was designed to specifically test whether or not 18 different factors contribute to an individual's global competitiveness based off the respondent's cultural cluster.

This approach is very efficient in that the data was collected during the conference registration process. Utilizing a web-based survey created using PsychData software allowed data collection to be completed in less than two days. Further cleaning of the data was performed but was limited due to tools within the software that identify incomplete answers.

**Cultural Cluster (CC)**

Cultural cluster (CC) is a term used to identify the cultural dimension of the participants. Gupta, Hanges, and Dorfman (2002) clustered societies of the GLOBE study into ten distinctive categories. These are displayed in Figure 3.2. Factors such as

language, geography, religion and past clustering were all taken into consideration when determining the final groups, which consist of:

- Anglo Cultures
- Latin Europe
- Nordic Europe
- Germanic Europe
- Eastern Europe
- Latin America
- Sub-Sahara Africa
- Arab Cultures
- Southern Asia
- Confucian

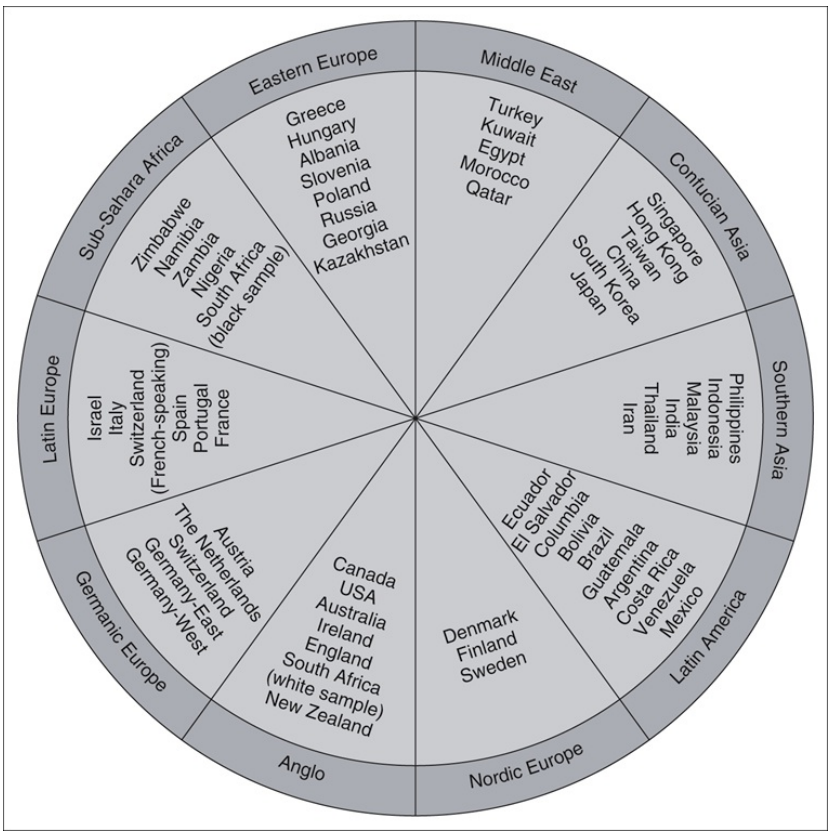


*Figure* 3.2. GLOBE Cultural Clusters. A visual display of the ten cultural clusters. (House, Hanges, Javidan, Dorfman, & Gupta, 2004)

**Global Mind-Set Inventory**

The global mind-set inventory identified three major components with each having three sub-components (Javidan & Teagarden, 2011). Participants were asked to evaluate each component's contribution to an individual's global competitiveness. Each component/sub-component was analyzed to see if a significant difference exists between the cultural cluster of the participant and the selected factor. The following is a list of the components/sub-components of global mind-set.

- Psychological Capital
    - Self-Assurance
    - Quest for Adventure

    - Passion for Diversity
- Social Capital
    - Diplomacy
    - Intercultural Empathy
    - Interpersonal Impact
- Intellectual Capital
    - Cognitive Complexity
    - Cosmopolitan Outlook
    - Global Business Savvy

## Sample

The Global Business and Technology Association (GBATA) conference is a multi-national conference with participants from well-known universities around the world. Over 300 participants from over fifty countries participated in the 2013 conference in Helsinki, Finland**.** The conference theme was **"**Globalizing Businesses for the Next Century: Visualizing and Developing Contemporary Approaches to Harness Future Opportunities" (n.a., 2012). This population was being selected because it provides a diverse group of academics from around the world. Although the population was limited to academic professionals, it is an appropriate group based off the research topic.

## Challenges

There were several challenges with this research study. The first challenge was gaining permission to collect data during conference registration. Although this was a challenge, it was overcome with assistance from the founder of the conference, Nejdet

Delener. An email to request permission was sent directly to Delener to obtain his approval and support (Appendix E).

The next challenge was having participants take a few minutes to complete the initial survey, and then encouraging the participants to agree to a follow-up interview. A drawing for an I-Pad mini was used as an incentive to entice registrants to participate in the quick five-minute survey.

Another challenge was the language barrier. From past experience at the GBATA conference, the researcher knew that most attendees would speak English to a certain degree, although taking a written survey could be challenging for some participants.

The next challenge was the development of a valid and reliable survey instrument to utilize during the research process. Moreover, an appropriate survey instrument was not located during the literature review process. Therefore, a survey was developed to measure the appropriate factors identified in the hypotheses. A pilot study was utilized to gather feedback on wording, appropriate question order, relevance, and general ways of improving the survey. In addition, a small group of topic specialists were consulted for evaluation and review before the final draft was created.

The most challenging issue was the interpretation of the data collected during the interview portion of the research. Although software such as NVIVO could have assisted in this process, the data was manually interpreted utilizing spreadsheets and a color-coding system.

## Instrumentation

Two survey instruments were utilized for this study. The first was an online electronic survey and the second was a list of open-ended questions designed for the face-

to-face interviews. Since no previous survey instruments were located during the literature review process, surveys were created with the specific intent of ranking the components of the theories relative to the hypothesis.

A panel of three experts reviewed the first draft of the surveys: two from the field of global leadership and one with an expertise in survey creation. Modifications were made to the surveys based on the feedback provided by the expert panel.

**Online Survey**

An online survey (Appendix F) was the chosen method of data collection for the quantitative portion of the research. The online survey was presented to participants utilizing an online survey tool called Psychdata. The survey tool opened with a brief explanation of the research project, followed by the informed consent form. Once the data collection process began, participants could opt out at any time. The final question of the survey asked whether participants were willing to take part in a 15–20 minute face-to-face interview. Printed copies were available for those who did not feel comfortable with an online format or for those who did not have time to take it during the registration process.

**Face-to-Face Interviews**

The face-to-face interviews were conducted utilizing open-ended questions in a structured format. Interview questions focused on the definition of individual global competitiveness and activities/components that contribute to the development of a student's global competitiveness (Appendix G). The interviews were documented by two separate electronic recording devices to aid in their transcription. The length of the interviews was 15–20 minutes, which was tested in a brief pilot study.

**Pilot Study**

Pilot studies of surveys are important to work out any potential issues ahead of time, such as issues involving question wording, sequencing, overall layout, and functional arrangements (Adams et al., 2007). In addition, pilot studies can be very beneficial for new researchers (Krathwohl & Smith, 2005). Therefore, a limited pilot study was conducted in order to gain insight and practical experience before the actual research study.

The pilot study consisted of having four academic professionals taking the online survey as well as participating in face-to-face interviews. The pilot study was conducted in as close to the actual research process as possible, including the use of the actual online survey tool and, in the interviews, the same questions and the recording devices. A follow-up interview was conducted to gather feedback on ways of improving the survey, interview, and data collection process.

**Data Collection**

One research goal was to solicit input from participants at the GBATA conference during the two registration days. The data collection process (Figure 3.3) utilized an internet-based research survey tool called PsychData to collect responses from the participants. To reduce one research limitation, low response rates, the survey was the first step in the registration process. Although this was not a foolproof data collection method, it increased the amount of survey participants at the conference. The intent was for all registered conference participants to take the survey, but very few researchers ever obtain a 100% contribution rate.

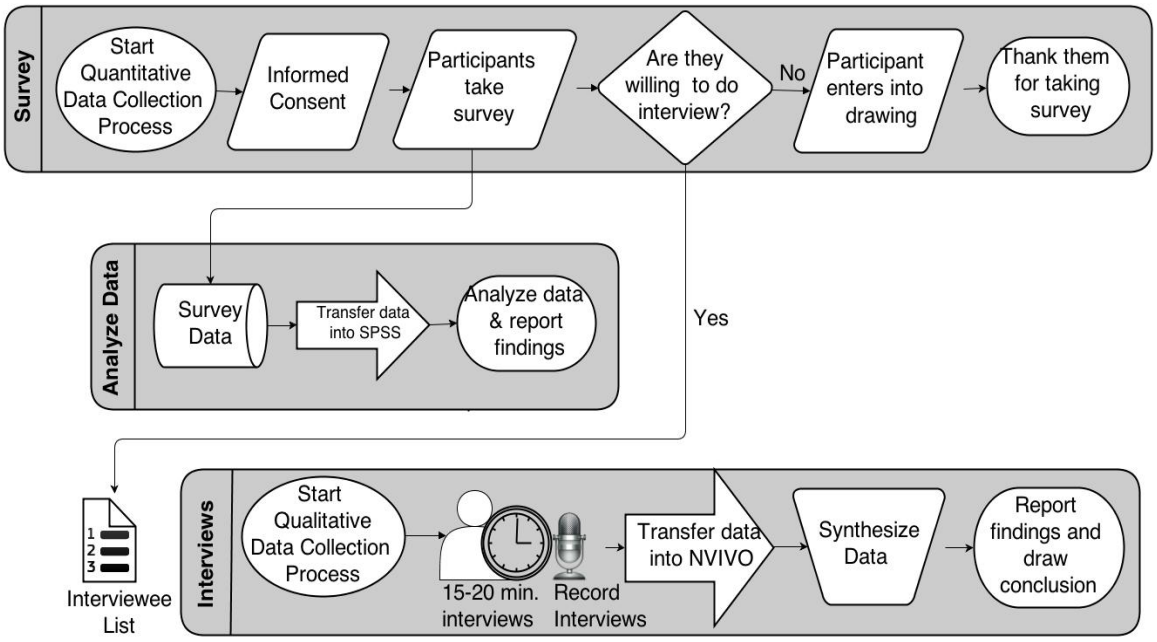


*Figure 3.3.* Data collection process. This figure illustrates the data collection process used during the research for the quantitative and qualitative approach.

**Informed Consent**

The informed consent document (Appendix D) was the 2nd page of the online survey, directly after the welcome message. Informed consent is defined as "a norm in which subjects base their voluntary participation in research projects on a full understanding of the possible risks involved" (Babbie, 2012, p. 64). The informed consent document is designed to include two critical components: subjects agree to participate voluntarily and subjects need to be informed of the duration, methods, possible risks, and purpose of the study (Soble, 1978). The informed consent for this research study was designed to cover these critical elements as well as all other relative information.

**Participation in Survey**

Participation in the survey and the research study was completely voluntary. The survey consisted of six basic demographic questions followed by 21 questions regarding global competitiveness utilizing a five point Likert scale. Research has shown that the longer a survey, the fewer participants who will start and complete the survey (Galesic & Bosnjak, 2009). Therefore, the survey was designed to take approximately five minutes of the participant's time.

In order to incentivize taking the survey and to reward participatory behavior, each participant was entered into a one time drawing for an Apple iPad Mini™ to be awarded at the end of the conference. Millar and Dillman (2011) offered the utilization of a multiple response-inducing technique as an effective strategy. Therefore, a pre-conference email about the survey and iPad Mini incentive was sent to attendees.

**Selection of Interview Candidates**

A follow-up interview with some participants was conducted to complete the qualitative portion of the proposed study. Selection of the interview candidates was determined by their willingness to participate in a face-to-face interview, their cultural cluster, and their self-assessment of global competitiveness efficacy. Once candidates were selected, they were contacted to setup a brief 15–20 minute interview.

A drawing for an iPad Mini™ was utilized in order to incentivize participation. Each participant was allowed one entry for completing the online survey and one additional entry if they elected to participate in the face-to-face interview. The gift was displayed during the survey process along with a promotional teaser about the iPad Mini™. The process of reciprocity was utilized as the gift was a small token of

appreciation for the participants' time (Laurie & Lynn, 2009). Additionally, the incentive enhanced the data collection process as participants talked about the possibility of winning the prize throughout the entire conference, which helped attract more participants.

## Summary

Although a mixed methods approach added another level of complexity to the study, the data collected to define individual global competitiveness and its critical components was achieved. Collecting data at a global conference with a diverse cultural population added a degree of challenge to the research study and the analysis of the results. Although the study was not flawless, there were a couple of critical elements to its success.

The first element was taking the time to conduct a pilot study to work through issues such as the addition of a ranking question, the ordering of questions, and the comfort level of conducting the face-to-face interviews. The pilot study allowed the researcher to implement minor adjustments, which made the data collection and analysis process easier. The second critical component was the ability to be flexible and to have some type of contingency plan.

## Chapter 4: Presentation of Research Findings

The purpose of this research study was to explore and better understand the concept of individual global competitiveness from the perspective of academic professionals from around the world. Specifically, the researcher wanted to answer the question: How do academic professionals from around the world define the term "individual global competitiveness?" Additionally, nine hypotheses were tested to answer the secondary research questions: What components from the three models are critical to influence, increase, or change an individual's global competitiveness? And, what other factors, not represented in the three models (Figures 1.1, 1.2, and 1.3), influence, increase, change, and define an individual's global competiveness?

To answer this study's research questions, a mixed methods approach was utilized to collect the empirical data. An online survey was used to collect the data from participants during registration at the 2013 Global Business and Technology Association (GBATA) conference in Helsinki, Finland. The second part of the mixed methods study involved conducting face-to-face interviews with participants who agreed to spend 15–20 minutes answering questions about the research topic. A structured interview consisting of ten questions (Appendix G) was utilized in each face-to-face interview.

This chapter will present the data collection process, participant demographic information, the findings of research questions one thru three, the testing of the nine hypotheses presented in chapter 3, and a brief summary of the findings. The methodology as outlined in Chapter 3 was followed as closely as possible, although some minor adjustments were made during the process due to unforeseen circumstances.

## Data Collection Process

Approval for the data collection process at the GBATA conference in Helsinki, Finland was obtained via email from Nejdet Delener, GBATA founder and president (Appendix H). Informed consent forms (Appendix D) were utilized to ensure that participants fully understood any risks involved, the duration of the research, the purpose of the study, and lastly, to acknowledge their voluntary participation. Electronic informed consent forms were provided for those respondents taking the online survey, and paper informed consent forms were provided for respondents participating in the face-to-face interviews. A majority of the participants (84.4%) expressed an interest in receiving a copy of the findings of the research. Upon completion of the analysis, a summary report of the findings will be compiled and sent electronically to all participants who requested the information.

The study population consisted of 250 registered attendees at the five-day conference, N =250. A total of 95 (38%) conference attendees in the sample population participated in the study, although five surveys were removed due to incomplete information. This provided 90 (36%) complete and valid surveys for the study. The participation rate of 90 (36%) is a good response rate, given the sample population size of 250.

### Quantitative Approach

The quantitative portion of the research study involved the participants taking an online survey consisting of 27 close-ended questions. The goal of the quantitative portion of the research was to answer research questions number 2 and number 3. The three models referenced in the research questions pertain to Figures 1.1, 1.2, and 1.3, and

consist of the Global mind-set model (Thunderbird Global Mindset Institute Team, n.d.), a Conceptual Framework – Antecedents of a Global Mindset (Ananthram et al., 2012), and Pyramid Model of Global Leadership (Mendenhall et al., 2008). The 2nd and 3rd research questions were:

2) What components from the three models are critical to influence, increase, or change an individual's global competitiveness?

3) What other factors, not represented in the three models, influence, increase, change, and define an individual's global competiveness?

In order to obtain a the high response rate mentioned earlier, the researcher planned the first step in the registration process at the 2013 GBATA conference in Helsinki, Finland, was completing the survey. Although this seemed to be a plausible idea, it was unrealistic given the logistics of attendees signing in and obtaining their conference packets. However, flexibility proved to be a key component in making the data collection process still work. Therefore, the online data collection point for attendees was set up at the end of the registration process, off to the side, not at the beginning of the registration process. This made the method of getting attendees to take the online survey somewhat more challenging.

The initial goal was for 70–75 participants to take the online survey during the first day of the registration process. This "n" number was based on the projected number of 300–350 conference attendees. The goal was to acquire at least 50 participants by the end of the first day because the researcher predicted it would be harder to get conference attendees to participate later in the week. Some attendees came in for their presentations and left the conference immediately afterwards, while other attendees stayed for the

entire conference. Nonetheless, by the end of the week, the conference attendee numbers had dwindled dramatically from the first day. Although the initial first day goal was not met, the researcher obtained 44 completed surveys, which was a good start toward the overall goal of 70–75 surveys.

Since the required number of respondents was not achieved during the registration process, the researcher maintained a presence at the conference to capture additional participants. A data collection point was maintained throughout the five-day conference to obtain additional participants. Additional participants were captured before the conference began in the morning, during breaks and lunches, and after the presentations ended for the day. By the conference's close, the researcher was able to obtain 90 valid responses.

**Qualitative Approach**

The last question of the survey asked if the participant was willing to conduct a 15–20 minute face-to-face interview. At the end of the first day, the researcher sent an email to all participants along with a link to an interview schedule located on Google Drive. A schedule was provided so the participants could select a convenient time for their face-to-face interviews. This portion of the process was more challenging than the researcher expected. Although participants stated they were willing to conduct a face-to-face interview, getting the participants to sign-up for a time slot was much more difficult. Nonetheless, nine face-to-face interviews were conducted.

A total of 9 (3.6%) of the sample population participated in face-to-face interviews. Six of the ten cultural clusters were represented in the face-to-face interviews. Specifically, there were 3 Anglo, 1 African, 2 Eastern Europe, 1 Middle

Eastern, 1 Confucian, and 1 Southeast Asian participants. The average length of time for an interview was 25 minutes. The average face-to-face time was somewhat skewed in that, for example, one interview took 59 minutes. Upon removing this data point as an anomaly, the average interview length was 20 minutes and 45 seconds, which was close to the projected time.

## Demographic Information

Demographic characteristics were collected from the sample population in order to accurately describe the makeup of the respondents and to analyze other characteristic of the sample for significant relationships. Tables 4.10–4.18 comprise the demographic information collected during the survey process. The demographic characteristics of participants in the study included gender, age, cultural cluster, educational level, position held in higher education, and the type of higher education institution at which the respondent works.

### Gender

Table 4.1 represents the gender of the respondents who took the online survey and who participated in the face-to-face interviews. All respondents identified their gender. Out of the total respondents who took the survey, 54 (60%) were male and 36 (40%) were female. Out of the respondents who participated in the face-to-face (f2f) interview, 6 (66.7%) were of the male gender and 3 (33.3%) were of the female gender.

Table 4.1

*Gender*

| | Surveys | | f2f Interviews | |
|---|---|---|---|---|
| | Number | Percent | Number | Percent |
| Male | 54 | 60.0% | 6 | 66.7% |
| Female | 36 | 40.0% | 3 | 33.3% |
| Total | 90 | 100.0% | 9 | 100.0% |

Table 4.2 represents the age of the respondents who took the online survey. All respondents identified their age. The average age of the respondents in the study was 44.28 years. The youngest respondent was 20 years old, and the oldest respondent was 67. The median age of all respondents was 45 years, and the mode was 42 years, with 6.7% of the participants being of this age.

Table 4.2

*Age*

| | Number | Percent |
|---|---|---|
| 20-29 | 13 | 14.4% |
| 30-39 | 17 | 18.9% |
| 40-49 | 27 | 30.0% |
| 50-59 | 28 | 31.1% |
| 60+ | 5 | 5.6% |
| Total | 90 | 100.0% |

Table 4.3 represents the generation of the respondents who took the online survey. In order to perform statistical tests on the age of the respondents, the data was grouped into the following generation categories:

| Generation | Years |
|---|---|
| Baby Boomers | 1946–1964, |
| Generation X | 1965–1979, |
| Generation Y | 1980–1994 (McCrindle & Wolfinger, 2009). |

The Baby Boomers ranged in age from 49–67 years, and 34 (37.8%) of the respondents were from this generation. The Generation Xers ranged in age from 34–48 years, and 38 (42.2%) of the respondents were from this generation. The Generation Y participants range in age from 19–33 years, and 18 (20%) of the respondents were from this generation. Although this does not constitute a normal distribution, the researcher had expected more respondents that were from Generation X and Baby Boomers.

Table 4.3

*Generation*

| | Number | Percent |
|---|---|---|
| Baby Boomers | 34 | 37.8% |
| Generation X | 38 | 42.2% |
| Generation Y | 18 | 20.0% |
| Total | 90 | 100.0% |

**Cultural Cluster**

Table 4.4 represents the cultural cluster of the respondents who took the survey and who participated in the face-to-face interviews. This characteristic was utilized as the independent variable for the hypothesis testing. Respondents who took the survey identified themselves as follows: 29 (32.2%) Anglo, 1 (1.1%) Germanic, 5 (5.6%) Latin Europe, 34 (37.8%) African, 3 (3.3%) Eastern Europe, 3 (3.3%) Middle Eastern, 5 (5.6%) Confucian, 6 (6.7%) Southeast Asia, 0 (0%) Latin America, and 4 (4.4%) Nordic. Respondents who participated in the face-to-face interviews identified themselves as

follows: 3 (33.3%) Anglo, 1 (11.1%) Eastern Europe, 2 (22.2%) Middle Eastern, 1 (11.1%) Confucian, and 1 (11.1%) Southeast Asia.

Table 4.4

*Cultural Cluster*

| | Surveys | | f2f Interviews | |
|---|---|---|---|---|
| | Number | Percent | Number | Percent |
| Anglo | 29 | 32.2% | 3 | 33.3% |
| Germanic | 1 | 1.1% | | 0.0% |
| Latin Europe | 5 | 5.6% | | 0.0% |
| African | 34 | 37.8% | 1 | 11.1% |
| Eastern Europe | 3 | 3.3% | 2 | 22.2% |
| Middle Eastern | 3 | 3.3% | 1 | 11.1% |
| Confucian | 5 | 5.6% | 1 | 11.1% |
| Southeast Asian | 6 | 6.7% | 1 | 11.1% |
| Latin America | 0 | 0.0% | | 0.0% |
| Nordic | 4 | 4.4% | | 0.0% |
| Total | 90 | 100.0% | 9 | 100.0% |

For the purpose of this study, several of the cultural clusters were combined due to low response rate. For the online survey, Germanic, Eastern Europe, Middle Eastern, Latin America, and Nordic cultural clusters did not have a sufficient number of respondents to draw any significant conclusions, therefore they were not considered for individual analysis. However, the respondents from these cultural clusters were combined, which resulted in the cultural cluster distribution displayed in Table 4.5.

Table 4.5

*Cultural Cluster with Low Responses Combined*

| | Number | Percent |
|---|---|---|
| Anglo | 29 | 32.2% |
| Latin Europe | 5 | 5.6% |
| African | 34 | 37.8% |
| Confucian | 5 | 5.6% |
| Southeast Asian | 6 | 6.7% |
| Combined – Germanic, Eastern Europe, Middle Eastern, Latin America, Nordic | 11 | 12.1% |
| Total | 90 | 100.0% |

**Educational Level**

Table 4.6 represents the educational level of the survey respondents. The educational level of most participants, 49 (54.4%), identified themselves to be at the doctorate level. An additional 26 (28.9%) respondents identified themselves to be at the masters level, which brought the cumulative total of masters and doctorate respondents to 75 (83.3%). A high percentage of educated professionals represents what the researcher expected for the conference and for the research study.

Table 4.6

*Completed Educational Level*

| | Number | Percent |
|---|---|---|
| Doctoral | 49 | 54.4% |
| Masters | 26 | 28.9% |
| Bachelors | 7 | 7.8% |
| Non-Degreed | 3 | 3.3% |
| Other | 5 | 5.6% |
| Total | 90 | 100.0% |

**Position Held in Higher Education Institutions**

Table 4.7 represents the positions held in higher education of the survey respondents. The results revealed 59 (65.6%) of the respondents held the position of faculty, 15 (16.7%) held the position of administrator, 4 (4.4%) held the position of support staff, 5 (5.6%) held the position of student, and 7 (7.8%) held other positions.

Table 4.7

*Position in Higher Education*

| | Number | Percent |
|---|---|---|
| Faculty | 59 | 65.6% |
| Administrator | 15 | 16.7% |
| Support Staff | 4 | 4.4% |
| Other | 7 | 7.8% |
| Student | 5 | 5.6% |
| Total | 90 | 100.0% |

**Type of Higher Education Institution**

Table 4.8 represents the type of higher education institution at which survey respondents work. The results revealed 56 (62.2%) of the respondents worked at doctorate-degree-granting institutions, 17 (18.9%) worked at masters-degree-granting institutions, 4 (3.3%) worked at baccalaureate-degree-granting institutions, 10 (11.1%) worked for other types of higher education institutions, and 4 (4.4%) worked for an organization not classified as a higher education institution.

Table 4.8

*Type of Higher Education Institution*

| | Number | Percent |
|---|---|---|
| Doctorate-granting Universities | 56 | 62.2% |
| Master's Colleges and Universities | 17 | 18.9% |
| Baccalaureate Colleges | 3 | 3.3% |
| Not classified | 4 | 4.4% |
| Other | 10 | 11.1% |
| Total | 90 | 100.0% |

## Findings for Research Question One

### Face-to-Face Interviews

Face-to-face interviews were held during the conference so that the researcher was able to connect with participants who expressed an interest in the qualitative portion of the study. Interviews were held in varied settings because the conference took place at two different locations and the same interviewing room was not always available.

During the interview process, field notes were taken and the interviews were recorded for later transcription. Upon completion of the interviews, the audio recordings were transcribed for analysis and coding. Due to the low number of interviews, NVIVO was not utilized during the coding process.

### Analysis and Coding

Two approaches were taken during the analysis and coding portion of the study. First, the audio recordings of all the face-to-face interviews were listened to and keywords/themes were identified and recorded in an Excel spreadsheet. The keywords/themes were color coded for each question and a summary spreadsheet was compiled.

Additionally, each face-to-face interview was transcribed and colored coded to coincide with the keywords/themes identified in the audio analysis and coding process. Table 4.9 represents the identification of keywords/themes used by the respondents. If the respondent addressed the theme or used keywords during the interview, the theme was identified with a "1" in the table. For example, the data revealed that 89% of the respondents used or referred to communication and/or language during the interview process. In addition, 78% of the respondents used or referred to social skills and to being open/openness during their interviews. The other themes that emerged were adaptability, international experience, collaboration/sharing, and interpersonal skills.

Table 4.9

*Identification of Themes*

| | #1 | #2 | #3 | #4 | $5 | #6 | #7 | #8 | #9 | Total | Mean |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Communication/Language | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 8 | 0.89 |
| Social | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 7 | 0.78 |
| Open/Openness | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 7 | 0.78 |
| Adaptability | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 5 | 0.56 |
| International Experience | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 5 | 0.56 |
| Collaborating/Sharing | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 4 | 0.44 |
| Interpersonal Skills | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 4 | 0.44 |

Some respondents used keywords repeatedly in order emphasize the importance of a particular theme. Table 4.10 reveals the frequency of each theme or keywords used from each of the nine face-to-face interviews. The data in the table reveals that communication/language was a consistent theme in interviews for all but one of the respondents. The data also revealed that most of the respondents had a key theme they emphasized during the interview process.

Table 4.10

*Frequency of Themes*

| | #1 | #2 | #3 | #4 | $5 | #6 | #7 | #8 | #9 | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| Communication/Language | 7 | 7 | 0 | 1 | 28 | 13 | 4 | 3 | 5 | 68 |
| Social | 0 | 9 | 0 | 6 | 4 | 3 | 1 | 3 | 1 | 27 |
| Open/Openness | 5 | 8 | 3 | 3 | 0 | 3 | 1 | 2 | 0 | 25 |
| Collaborating/Sharing | 2 | 4 | 0 | 0 | 0 | 15 | 0 | 0 | 1 | 22 |
| Adaptability | 0 | 0 | 0 | 0 | 8 | 7 | 1 | 1 | 4 | 21 |
| Interpersonal Skills | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 6 | 1 | 9 |
| International Experience | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 5 |

Table 4.11 presents the mean value of the themes by cultural cluster. This analytical approach allows for an even weight distribution by cultural cluster. There were three respondents from the Anglo cultural cluster, two from the Eastern Europe cultural cluster, and one respondent from each of the other cultural clusters. The analysis revealed that the top three themes emphasized during the face-to-face interviews were communication/language, collaborating/sharing, and adaptability.

Table 4.11

*Mean Value of Themes by Cultural Cluster*

| | Anglo | E. Europe | Africa | SE Asia | Middle East | Confucian | Mean |
|---|---|---|---|---|---|---|---|
| Communication / Language | 12.0 | 5.0 | 0.0 | 13.0 | 4.0 | 5.0 | 4.3 |
| Collaborating/ Sharing | 1.3 | 1.0 | 0.0 | 15.0 | 0.0 | 1.0 | 2.0 |
| Adaptability | 2.7 | 0.5 | 0.0 | 7.0 | 1.0 | 4.0 | 1.7 |
| Open/Openness | 3.7 | 3.5 | 3.0 | 3.0 | 1.0 | 0.0 | 1.6 |
| Social | 6.3 | 1.5 | 0.0 | 3.0 | 1.0 | 1.0 | 1.4 |
| Interpersonal Skills | 0.3 | 3.0 | 0.0 | 0.0 | 1.0 | 1.0 | 0.6 |
| International Experience | 0.7 | 1.0 | 0.0 | 0.0 | 1.0 | 0.0 | 0.3 |

Note: Based on frequency of themes

## Findings for Research Question Two and Question Three

During the research process, 18 key factors were identified (Table 4.12) from the literature review process, of which 15 came from the three models being evaluated in this study (Figures 1.1, 1.2, and 1.3). The study was limited to 18 factors because there was overlap between the different theoretical models (Table 1.1) and consideration was given to the length of time needed to complete the survey.

The first nine factors listed in Table 4.12 consist of the nine sub-components as identified in the Thunderbird Global mind-set model (Figure 1.1). Factors J–L and factors P–R were identified in the other two models (Figures 1.2 and 1,3) from Ananathram and Mendenhall and their colleagues. Factors M–O were identified from other sources through the literature review process (Carley, Stuart, & Dailey, 2011; Matta, 2010; Mazon, 2009; Sullivan, 2011).

Table 4.12

*Global Competitiveness Factors*

| | |
|---|---|
| A | Self-Assurance - self-confidence, a sense of humor, a willingness to take risks in new contexts, and high levels of energy; the ability to be energized, rather than drained, by a foreign context. |
| B | Thirst for Adventure - an appreciation for and ability to thrive in unpredictable and complex environments. |
| C | Passion for Diversity - a desire to explore other parts of world, experiencing other cultures, and trying new ways of doing things. |
| D | Cosmopolitan Outlook - an active interest in the culture, history, geography, and political and economic systems of different parts of the world. |
| E | Cognitive Complexity - the ability to piece together multiple scenarios with many moving parts, without becoming paralyzed by the number of options. |
| F | Global Business Savvy - a strong grasp of how industry operates worldwide, how global customers behave, how your competitors target their needs and habits, and how strategic risk varies by geography. |
| G | Interpersonal Impact - the ability to bring together divergent views, develop consensus, maintain credibility, and skills at building networks - not just with peers and senior leaders but with other less obvious potential connections. |
| H | Diplomacy - listening to what is said and what is not said, ease in conversations with people who are different from you, and a greater inclination to ask than to answer. |
| I | Intercultural Empathy - the ability to engage and connect emotionally with people from other parts of the world. |
| J | Making Complex Ethical Decisions - adapting to different ethical nuances. |
| K | Fostering Innovation - promoting advancement in processes and technology. |
| L | Leading Change - initiating transformation within an organization. |
| M | Study Abroad Programs - participating in taking courses in a foreign educational system. |
| N | Diverse Classrooms - multi-cultural student population in each class. |
| O | Becoming Bi-Lingual - speaking more than one language fluently. |
| P | Watching World News - watching world news on a regular basis, i.e. BBC. |
| Q | Traveling Abroad - traveling outside of your home country. |
| R | Multi-cultural Interactions - interacting with people (family, friends, co-workers) from another culture on a regular basis. |

Respondents were asked to score each factor on the contribution towards an Individual's Global Competitiveness. A 5-point Likert scale was used for the study with the following rating system: 1 – Not Important, 3 – Neutral and 5 – Very Important. Questions 7–24 correlated to the 18 factors listed in Table 4.12, while question 25 asked for the respondents to rank the top five factors indicating the most influential as first and the fifth most important factor as five. For the purpose of the research and for the rating of the foresaid factors, individual global competitiveness was defined as: one who has the skills, knowledge, ability, and attitude to outperform others within the diverse cultural, political, and educational systems of a global economy.

**Results**

Table 4.13 represents the results of the survey question, which asked the participants to score the 18 factors with regard to their contribution toward an individual's global competitiveness. As mentioned previously, the 18 factors were identified during the literature review process as key components to global mind-set and global leadership. The 18 factors were listed in a table format utilizing a 5-point Likert type scale. The 5-point Likert-type scale used a score of 5 as being "very important," 3 as "neutral," and 1 as "not important."

Table 4.13

*Factor Score on Contribution Toward an Individual's Global Competitiveness*

| | Global Competitiveness Factors | 1 Not Important | 2 | 3 Neutral | 4 | 5 Very Important | Mean | SD |
|---|---|---|---|---|---|---|---|---|
| A | Self Assurance | 0.0% | 1.1% | 4.4% | 38.9% | 55.6% | 4.49 | 0.640 |
| B | Thirst for Adventure | 0.0% | 0.0% | 10.0% | 48.9% | 41.1% | 4.31 | 0.647 |
| C | Passion for Diversity | 0.0% | 0.0% | 10.0% | 27.8% | 62.2% | 4.52 | 0.674 |
| D | Cosmopolitan Outlook | 0.0% | 1.1% | 14.4% | 41.1% | 43.3% | 4.27 | 0.747 |
| E | Cognitive Complexity | 0.0% | 3.3% | 12.2% | 51.1% | 33.3% | 4.14 | 0.758 |
| F | Global Business Savvy | 0.0% | 0.0% | 12.2% | 40.0% | 47.8% | 4.36 | 0.692 |
| G | Interpersonal Impact | 0.0% | 1.1% | 4.4% | 38.9% | 55.6% | 4.49 | 0.640 |
| H | Diplomacy | 0.0% | 4.4% | 10.0% | 34.4% | 51.1% | 4.32 | 0.832 |
| I | Intercultural Empathy | 0.0% | 2.2% | 12.2% | 32.2% | 53.3% | 4.37 | 0.785 |
| J | Making Complex Ethical Decision | 0.0% | 3.3% | 20.0% | 34.4% | 42.2% | 4.16 | 0.860 |
| K | Fostering Innovation | 1.1% | 1.1% | 15.6% | 47.8% | 34.4% | 4.13 | 0.796 |
| L | Leading Change | 0.0% | 4.4% | 14.4% | 42.2% | 38.9% | 4.16 | 0.833 |
| M | Study Abroad Programs | 0.0% | 4.4% | 24.4% | 43.3% | 27.8% | 3.94 | 0.839 |
| N | Diverse Classrooms | 0.0% | 4.4% | 18.9% | 38.9% | 37.8% | 4.10 | 0.862 |
| O | Becoming Bi Lingual | 1.1% | 5.6% | 18.9% | 31.1% | 43.3% | 4.10 | 0.972 |
| P | Watching World News | 0.0% | 3.3% | 17.8% | 34.4% | 44.4% | 4.20 | 0.851 |
| Q | Traveling Abroad | 0.0% | 0.0% | 12.2% | 38.9% | 48.9% | 4.37 | 0.694 |
| R | Multi-cultural Interactions | 0.0% | 2.2% | 8.9% | 35.6% | 53.3% | 4.40 | 0.747 |

**Ranking of Top Five Most Influential Factors**

The second to last question asked the respondents to rank the top five most influential factors that contribute toward an individual's global competitiveness. Each factor was assigned a corresponding letter for easy identification and clarity when selecting these factors (Table 4.9). Respondents started with the selection of the most influential factor and progressed down until they had selected their top 5 most influential factors. Reverse scoring was then used to rank each factor.

**Reverse Scoring Factors**

Reverse scoring was used to rate the frequency of each factor. Each respondent scored the top five factors that contribute to an individual's global competitiveness. A ranking of the 1st most influential gave the factor 5 points, the 2nd ranking gave the factor 4 points, the 3rd 3 points, the 2nd 2 points, and the 5th 1 point. As a way to validate the rating frequency, a test column was added to verify that respondents gave no duplicate rankings. Only one respondent's scoring had a duplicate answer, which resulted in discarding the entire survey.

After totaling the points of the reverse scoring, five factors emerged at the top. The top five most influential factors were:

1) Self assurance (A)
2) Passion for diversity (C)
3) Global business savvy (F)
4) Interpersonal impact (I)
5) Cognitive complexity (E)

Table 4.14

*Factor Priority Ranking*

| | | Mean | Std. Deviation | Ranking |
|---|---|---|---|---|
| A | Self Assurance | 2.133 | 2.284 | 1 |
| B | Thirst for Adventure | 0.744 | 1.473 | 9 |
| C | Passion for Diversity | 1.678 | 1.907 | 2 |
| D | Cosmopolitan Outlook | 0.600 | 1.252 | 11 |
| E | Cognitive Complexity | 1.211 | 1.751 | 5 |
| F | Global Business Savvy | 1.311 | 1.828 | 3 |
| G | Interpersonal Impact | 1.289 | 1.769 | 4 |
| H | Diplomacy | 0.589 | 1.289 | 12 |
| I | Intercultural Empathy | 0.956 | 1.579 | 7 |
| J | Making Complex Ethical Decision | 0.478 | 1.094 | 14 |
| K | Fostering Innovation | 0.778 | 1.497 | 8 |
| L | Leading Change | 0.967 | 1.547 | 6 |
| M | Study Abroad Programs | 0.222 | 0.933 | 17 |
| N | Diverse Classrooms | 0.156 | 0.616 | 18 |
| O | Becoming Bilingual | 0.389 | 1.067 | 15 |
| P | Watching World News | 0.289 | 0.890 | 16 |
| Q | Traveling Abroad | 0.489 | 1.211 | 13 |
| R | Multi-cultural Interactions | 0.700 | 1.194 | 10 |

Table 4.15 represents the eighteen factors in comparison to their associated theoretical model(s) and their reverse score ranking. The top five factors are identified by the reverse score ranking and are identified with an asterisk. All of the top five factors were components of the global mind-set model and the global leadership competencies model.

Table 4.15

*Factor Ranking Relative to Theoretical Models*

| | Global Competitiveness Factors | GM | AGM | GLC | Reverse Score Ranking |
|---|---|---|---|---|---|
| *A | Self-Assurance | X | | X | 1 |
| B | Thirst for Adventure | X | | X | 9 |
| *C | Passion for Diversity | X | | X | 2 |
| D | Cosmopolitan Outlook | X | | X | 11 |
| *E | Cognitive Complexity | X | X | X | 5 |
| *F | Global Business Savvy | X | | X | 3 |
| *G | Interpersonal Impact | X | X | X | 4 |
| H | Diplomacy | X | X | X | 12 |
| I | Intercultural Empathy | X | | X | 7 |
| J | Making Complex Ethical Decisions | | | X | 14 |
| K | Fostering Innovation | | X | X | 8 |
| L | Leading Change | | | X | 6 |
| M | Study Abroad Programs | | | | 17 |
| N | Diverse Classrooms | | | | 18 |
| O | Becoming Bi-Lingual | | | | 15 |
| P | Watching World News | | X | X | 16 |
| Q | Traveling Abroad | | X | X | 13 |
| R | Multi-cultural Interactions | | X | X | 10 |

GM = Global Mind-Set
AGM = Antecedents of Global Mind-Set
GLC = Global Leadership Competencies

**One-Way ANOVA**

Since the data has been presented in its basic form(s), a one-way analysis of variance (ANOVA) was used to evaluate the nine hypotheses presented in chapter 3. Table 4.16 represents a one-way analysis of variance (ANOVA) conducted to evaluate the difference between the respondent's cultural cluster, and the 18 factors presented in Table 4.12 as they contribute to an individual's global competitiveness. The cultural cluster variable started with ten groups, but in order to eliminate irrelevant cultural cluster groups with to few or no responses, modifications were made to the cultural cluster sets.

Since several cultural cluster groups did not have a significant number of participants; the cultural cluster groups with fewer than five respondents were eliminated. The five cultural cluster groups removed were Germanic, Eastern Europe, Middle Eastern, Latin America, and Nordic. This brought the total number of cultural clusters groups from ten down to five. The final five cultural cluster groups remaining were Anglo, Latin Europe, African, Confucian, and Southeast Asian. Therefore, Table 4.16 represents the ANOVA table from the remaining five cultural cluster groups.

Table 4.16

*Five-Cluster ANOVA table*

| | | Mean Square | F | Sig. |
|---|---|---|---|---|
| A | Self Assurance | 0.086 | 0.252 | 0.908 |
| B | Thirst for Adventure | 0.179 | 0.421 | 0.793 |
| C | Passion for Diversity | 1.045 | 2.304 | 0.066 |
| D | Cosmopolitan Outlook | 0.154 | 0.266 | 0.899 |
| E | Cognitive Complexity | 0.175 | 0.328 | 0.858 |
| F | Global Business Savvy | 0.367 | 0.731 | 0.573 |
| G | Interpersonal Impact | 0.126 | 0.299 | 0.878 |
| H | Diplomacy | 1.416 | 2.193 | 0.078 |
| I | Intercultural Empathy | 0.069 | 0.104 | 0.981 |
| J | Making Complex Ethical Decision | 0.708 | 0.925 | 0.454 |
| K | Fostering Innovation | 0.179 | 0.324 | 0.861 |
| L | Leading Change* | 1.823 | 2.966 | 0.025 |
| M | Study Abroad Programs | 0.847 | 1.158 | 0.337 |
| N | Diverse Classrooms* | 2.336 | 3.259 | 0.016 |
| O | Becoming Bilingual | 0.749 | 0.731 | 0.574 |
| P | Watching World News* | 2.243 | 3.517 | 0.011 |
| Q | Traveling Abroad | 0.723 | 1.535 | 0.201 |
| R | Multi-cultural Interactions | 0.557 | 0.979 | 0.425 |

* Significant at the .05 level

The respondents rated 18 factors on their contribution toward an individual's global competitiveness. Only three factors had a significance level below the .05 levels

indicating disparity between the cultural cluster groups. The three factors were L) leading change, N) diverse classrooms, and P) watching world news.

Table 4.17 represents the mean scores of the 18 factors based on the respondent's cultural cluster. Although there are ten cultural clusters identified in Figure 3.2, there was not a respondent from the Latin America cluster, thus the reason for only nine cultural clusters in Table 4.