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Global Mindset: Examining the critical components for successful global leadership decision-making

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Global Mindset: Examining the critical components for successful global leadership decision-making

by
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Master of Science
Industrial and Organizational Psychology
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A dissertation submitted to the College of Psychology and Liberal Arts at
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The undersigned committee, having examined the attached dissertation

"Global Mindset: Examining the critical components for successful global leadership decision-making"

by Agnes Flett hereby indicates its unanimous approval

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Abstract

Title:
Global Mindset: Examining the critical components for successful global leadership decision-making

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While global leadership is not very well defined, it is well accepted that working in a global environment is complex and fraught with difficulty. The complexity of the global environment presents unique challenges for global leaders in that, not only must they manage a paradox between different stakeholder groups with competing agendas while maintaining relationships, they must also filter through vast amounts of information from multiple stakeholder groups in order to make effective decisions. This complexity reflects the notion of global mindset. Global mindset is defined as the ability to think and act both locally and globally at the same time. This definition is intended to demonstrate that there is a need to balance creating global consistency which does not allow deviations from a global standard, with a need for differences which are created by local cultural practices and norms.

Thus, leaders need to understand the facts about different countries and cultures, business procedures, and local information about customs and practices, both from a social and business perspective. Very little is known about how global leaders successfully approach and complete this complex cognitive task. Therefore, there is a need for research to identify the underlying cognitive processes that occur while making effective decisions in a global environment. Understanding what underlies global mindset is critical in assisting organizations with the future selection, development and career management of global leaders.

The cognitive processes associated with global mindset were explored in a series of two studies; one qualitative and one quantitative. Results suggest that global mindset is triggered by managing paradoxes and involves 3 core components: information management, risk management and relationship management and 3 sub components comprised of intuitive information processing, rational information processing and relationships. Further to this, experience and emotions are part of intuitive information processing, relevant vs irrelevant information, business factors, decision-making options and organizational values are part of rational information processing and information flow and difference are part of relationships.

Keywords; global leadership, global competencies, global characteristics, leadership decision-making, executive development, global mindset, paradox management, cognitive processes, information processing, intuitive information processing, rational information processing, relationship management, information management, risk management, corporate performance.

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Introduction

Despite its popularity, global leadership is a fairly recent phenomenon. During the 1960s and 70s, 'global leader' was used to describe a company's market position; however, by the 1980s its meaning focused on what executives do (McCall & Hollenbeck, 2002), which at that particular time, was referencing mostly expatriates. However, recent interest in this phenomenon has evolved from corporations operating in a global economy with a need for suitably qualified leaders to execute global strategies (Javidan et al., 2007). Delivering effective global strategies means being able to make and execute effective decisions. Global mindset is a critical component, as it is believed to be a precursor for effective decision-making for global leaders. Beecher and Javidan (2007) propose that corporations need a new and different breed of global leaders, those who can take decisions and actions that facilitate the development of the complex network of internal and external connections with individuals, teams and organizations from many different political, social and cultural systems.

As global leaders operate in a complex working environment, they must influence effectively across geographical boundaries with multiple stakeholder groups, often with different or opposing agendas to other groups, while still retaining solid working relationships with these individuals. They must also

manage the vast volumes of information that they are exposed to, through these stakeholders and other sources, in order to make decisions.

It is well known that global firms face contradictions or paradoxes and that decision makers must have 'dualistic perspectives' in order to examine and select the most relevant information on which to base their decisions. The cognitive ability to take a dual perspective helps leaders make sense of their organizational and global environments, which subsequently enhances or inhibits the organization's competitive advantage (Caproni, 1992). This cognitive process in which global leaders take a dual perspective to make decisions is known as global mindset. Research has shown that a global mindset is necessary for successful internationalization (Nummela et al., 2004).

Global mindset is considered an individual-level construct representing multidimensional cognitions. Levy et al. (2007) defines global mindset as "a highly complex cognitive structure characterized by an openness to and articulation of multiple cultural and strategic realities on both global and local levels, and the cognitive ability to mediate and integrate across the multiplicity" (p. 27). Despite this useful description which reminds us of the cognitive complexities within global mindset, we do not fully understand the underlying processes and cognitions for this construct. Only by understanding the underlying cognitive processes for global mindset, can we expect to fully

understand the way global leaders manage this complexity and manage information and relationships such that they can make and execute effective decisions. Without a clear understanding, researchers will continue to struggle with providing a consistent definition and a shared understanding of global mindset and thus, will be unable to determine how it relates to effective global leadership. Similarly, without a solid understanding of what we mean by global mindset, practitioners will struggle to develop a shared meaning of this construct and be unable to develop appropriate interventions aimed at selecting, developing, managing the careers and retaining future global leaders.

The purpose of this study is to take a grounded theory approach to understanding the processes, cognitions, and affect underlying the notion of global mindset. In other words, this study will examine the mindset or cognitive capabilities of global leaders when making decisions in relation to juggling the competing interests of different stakeholder groups. Qualitative data was collected from global leaders about their thought processes when making tough decisions that impacted multiple stakeholders. Categories were allowed to emerge from the data. The categories found in qualitative research can be both 'analytical' and 'sensitizing' which allows us to conceptualize the key features of a phenomena, plus it helps to communicate it in everyday language. Bruner et al. (1986) informs us that "virtually all cognitive activity involves and is

dependent on the process of categorizing" (p. 286).

The Significance of the Study in Understanding Global Mindset

Research has generally found that cognitively complex individuals have superior information-processing capabilities. Cognitively complex people search for more wide ranging and novel information (e.g. see Streufert & Swezey, 1986), spend more time interpreting it (Dollinger, 1984), perceive a larger number of dimensions, and simultaneously hold and apply several competing and complementary interpretations (Bartunek et al., 1983). Levy et al. (2007) proposed that global mindset can have significant effects on information-processing patterns that may translate into superior leadership capabilities. Therefore, information processing capabilities may be an important cognitive ability and differentiator of global leaders versus domestic leaders.

The challenge for management researchers, according to Walsh (1995), is that while superior cognitive abilities may enable leaders to transform complex information into manageable forms, they may also introduce a cognitive bias or blind spot, which compromise leaders' ability to make sound strategic decisions. Therefore, understanding the complex cognitive processes which underlie global leaders' decision-making would be both insightful in better understanding what global leaders do differently from domestic leaders,

the specific challenges experienced with regard to decision-making in relation to balancing both global and local stakeholder needs, and the information processes which take place before making decisions. Understanding this can allow better development of interventions to select and train global leaders, thus save companies time and revenue as a result.

This study aims to demonstrate that the combined usage of conscious and unconscious information processing allows full consideration of all relevant information before making a decision and the impact of any proposed decisions, including the impact on the relationships with others. As a result of caring about the impact of decisions on these relationships, a mutually beneficial supply of information transfers to the global leader from both internal and external stakeholder groups. This in turn, benefits the global leader as the technical knowledge (industry know-how and business know-how) derived from these multiple stakeholder groups means that the global leader has the maximum relevant information with which to makes decisions. They do need to filter through this data however, in order to select the most relevant information for decision-making purposes. It is therefore, the author's view that the usage of global mindset provides a direct linkage with effective decision-making in a global context for the reasons already highlighted. Decisions which do not fully consider the impact on different stakeholder

groups may cause a negative impact to one or more groups, which will ultimately damage the relationship and thus, cripple the global leader's access to future important information such that they are not able to make informed decisions and thus, are unable to perform to their maximum potential. As a direct result of this, the global organization in which the global leader is employed may become less competitive or even cease to trade, over time. Understanding the nature of this decision-making process will enable organizations to better select, develop, manage the careers, and retain their global leaders.

Literature Review

A Global Leadership Definition

While there is no universally agreed definition of global leadership, it has been generally agreed that global leaders operate in a much more complex context compared to domestic leadership (Lane, Maznevski, & Mendenhall, 2004). The ability to manage this complexity has been clearly identified in global leadership research (Black, Morrison, & Gregersen, 1999; McCall & Hollenbeck, 2002; Osland, 2010; Osland, Bird, Osland, & Oddou, 2007; Rosen et al., 2000; Wills & Barham, 1994). Osland and Bird (2005) suggest that global leadership differs from domestic leadership in the degree to which the individual is exposed to the following: connectedness, boundary spanning, complexity, ethical challenges, dealing with tensions and paradoxes, pattern recognition, and building learning environments, teams and community, and leading large scale change efforts – all of this across diverse cultures. This demonstrates the complexity of the role.

Caliguiri (2006) defines global leadership as executives who are in jobs with some international scope, and must effectively manage through the complex, changing, and often ambiguous global environment. Osland and Bird (2005) define global leadership as the process of influencing the thinking, attitudes, and behaviors of a global community to work together synergistically

toward a common vision and common goal. Mendenhall et al. (2008) prefer to take a broader description of the global leader's role such that they describe 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. All of these definitions stress the need to manage complexity and influence different stakeholders effectively, across geographical boundaries. This suggests there is a critical need to manage both information and relationships.

Global leadership has also been described as 'extreme leadership,' (Osland et al., 2012) based on athletes who prefer risky sports because it pushes them to a more extreme level of performance. In the case of athletes, extreme sports are more dangerous, faster, and require more physical exertion. Similarly, global leadership is described as a more extreme level of domestic leadership because it is more complex due to the scale of the environment and the role itself, the different nuances to which the global leader is exposed, and the impact of their decisions on others and their company's global brand. As complexity is a key characteristic of the global context, (Lane et al., 2004) more

complex information processing is required when making decisions.

Not only is there a lack of agreement in relation to a universal definition of global leadership, but the traits and behaviors associated with global leadership continues to be debated among scholars and practitioners, such that a universal set of competencies has yet to be agreed (McCall & Hollenbeck, 2002). Gundling et al. (2011) however, describe 10 key behaviors that define great global leaders: 1) cultural self-awareness, 2) inviting the unknown, 3) results through relationships, 4) frame-shifting, 5) expanding ownership, 6) developing future leaders, 7) adapting and adding value, 8) core values and flexibility, 9) influencing across boundaries, and 10) "third-way" solutions. In relation to working across geographical boundaries, Trompenaars and Woolliams (2004) refer to the 3 R's of intercultural competence, which are 3 behaviors which support cultural adaptation and decision-making. The 3 behaviors are: 1) recognize, 2) respect, and 3) reconcile. Recognize refers to the need to distinguish differences between groups. This could be cultural differences or any other differences which set the groups apart. Respect the differences, is to accept that there is no one best way to do things and that the way people approach problems is culturally determined and therefore, an awareness of that bias can help with our perspective taking. We need to recognize the need for ourselves and others to resolve dilemmas in a culturally

compatible way. Finally, in relation to reconcile, it is important to recognize this tendency in oneself and in others, such that we can suspend judgment, take a wide perspective of the problem, consider multiple different options and find a satisfactory outcome for all parties. This is the basis of proposition 1c. Global leaders will consider multiple decision options and the outcomes of these in relation to both business factors and relationships before making any final decisions which will suggest rational information processing.

These authors highlight that creating complete satisfaction for parties with opposing agendas or severe cultural differences may be tricky. It may be a case of finding the best mutually agreeable solution for all parties, rather the best possible outcome.

Introduction to Global Mindset

To deal with the challenges of globalization, global leaders must possess a global mindset (Kefalas, 1998; Rhinesmith, 1992). A global mindset, which is the ability to 'think and act both globally and locally at the same time' (Cohen, 2010, p.27), allows leaders to be more aware of the diversity of knowledge between organizations, countries, cultures and markets (Beechler & Javidan, 2007; Gupta & Govindarajan, 2002). It is anticipated that 3 behaviors are associated with global leadership, namely: 1) results through relationships, 2) frame-shifting (perspective taking), and 3) influencing across boundaries are

linked to global mindset in that, these specific behaviors require the ability to manage the paradox between global stakeholders and local stakeholders (Rhinesmith, 2001) in order to make effective decisions.

Global mindset is critical to managing both relationships and information in a global leadership context. Therefore, filtering information to extract the most essential content for decision-making purposes is imperative. In conjunction with this need for knowledge management, there is a heavy relationship component to influencing across geographical boundaries (Gundling et al., 2011; Javidan et al., 2007). For example, global mindset is having a set of individual attributes that enable an individual to influence other individuals, groups, and organizations from diverse social, cultural and institutional systems (Begley & Boyd, 2003; Hitt et al., 2007). This ability to influence is critical to being effective in the role.

In the next sections, two specific global leadership competencies, directly associated with the notion of global mindset, that have been supported empirically and conceptually will be discussed. They are information management and relationship management. In relation to the former, effective information management includes the need to segregate relevant from

irrelevant information. The latter refers to the need to manage multiple stakeholder groups simultaneously to develop and retain those relationships.

Information management. Global leaders are information workers; that is, they spend their time absorbing, processing, and disseminating information about issues, opportunities, and problems (McCall & Kaplan, 1985). This information flow is essential for them to make decisions because from this, they must process and manage information. The strategy literature has identified 3 mechanisms by which mindsets influence decision-making: 1) scanning, 2) diagnosis, and 3) choice of alternatives (Weick, 1995). Scanning filters information, diagnosis provides meaning, and choice defines suitability (Massingham, 2013). This study will examine these mechanisms in the context of making decisions which impact both local and global stakeholders. This is the basis of proposition 3a. Global leaders will consider the impact of decisions on global stakeholders before making a final decision and proposition 3b. Global leaders will consider the impact of decisions on local stakeholders before making a final decision.

Studies have identified differences in domestic versus global mindsets as being an important predictor of information management and leadership performance in international business (e.g. Nadkarni & Perez, 2007). The leaders' cognitive processes help balance competing country, business, and

functional issues (see Murtha et al., 1998). This is important because it allows the global leader to use the wide range of information available to them, from which they must select the most relevant and essential details in order to make effective decisions.

Osland and Bird (2005) highlight that expert global leaders perform at higher levels of proficiency than novices because they manage information differently. For example, when examining a problem, they differentiate between relevant and irrelevant information more easily, while "novices sometimes overlook important patterns or cues or place too much emphasis on irrelevant information" (Osland & Bird, 2005, p. 131). This suggests that global leaders engage in a form of expert decision-making and information processing. Further to this, Osland et al. (2012) argue that expert global leaders make better global decisions and take more effective actions because they have developed an approach for distinguishing relevant information from irrelevant information. These global leaders are able to distinguish between relevant information, identify relevant patterns, build and retain deep domain knowledge, perceive subtle clues, and adopt appropriate action scripts. There is also some suggestion that executives who can understand how to balance their use of intuition and analytical thinking may be better prepared to lead in a changing business environment (Burke & Miller, 1999). This point is especially

relevant for global leaders who are required to operate effectively in a complex and dynamic changing work environment.

Relationship management. Several leading authors in the field of global leadership have highlighted the importance of relationship management in working across different cultures and being able to influence effectively across geographical boundaries. Relationship management is a key component of many global leadership models. Three examples are highlighted. Brake (1997) refers to the Global Leadership Triad which is comprised of 3 competencies: relationship management, business acumen and personal effectiveness. In this case, relationship management refers to "the ability to build and influence collaborative relationships in a complex and diverse global network to direct energy towards the achievement of business strategies" (Mendenhall et al., 2013, p.45). Black et al.'s (1999) Global Explorers Model has 4 characteristics of global leaders: character, inquisitiveness, perspective and savvy. Character incorporates relationship management, as there is a need for global leaders to get close to people to gain their trust and goodwill. Integrity is viewed as the foundation of excellent character and this is essential for establishing emotional connections with people from various backgrounds. They explain that if there is not a genuine interest in personal relationships, global leaders will simply will not be able to do business in many countries. It is fundamental to be able to

perform effectively. Finally, Bird et al. (2010) believe that global leaders need to have intercultural competence which they believe is comprised of 3 broad dimensions: perception management, relationship management, and self-management. Again, it has been noted that relationship management is viewed as essential to working effectively across geographical boundaries, as is perception management which is also critical to building and maintaining effective relationships. Perception management refers to suspending judgment about people and their intentions.

Self-regulation is also critical for relationship management. In particular, emotional regulation is important, especially in a global context. Without the ability to regulate our emotions, especially in relation to our people interactions, our perceptions of the world may become distorted and thus, affect our ability to develop and retain relationships. We all have preconceived ideas of how the world operates or at least should operate, how individuals should behave and which behaviors are deemed acceptable and unacceptable. These ideas are mainly influenced by our own personal experiences and the culture in which we were raised. We therefore view other intercultural interactions through our own lens which is influenced by our beliefs, values, biases and misconceptions about what is likely to happen (Geertz, 1973; Hofstede, 1980, 1991; Kluckhohn, 1954; Schneider & Barsoux, 2003; Steers &

Nardon, 2006; Trompenaars & Hampden-Turner, 1998). There is a risk therefore, that when we have exchanges with those from different cultures from our own, that we find the consequences of our actions may be different from what we expected or intended (Adler, 2002). The impact can cause embarrassment, insult, and even potential lost business opportunities or lost relationships. Therefore, being able to regulate our emotions in intercultural exchanges is a critical component of relationship management.

The Thunderbird Global Mindset Project consisted of interviews with 215 senior international executives in the United States, Europe, and Asia (Javidan et al., 2007). This study confirmed that effective global leaders are able to build and maintain trusting relationships with people from other parts of the world. Their results also confirmed that global executives with a global mindset were best able to build mutual trust because they were able to develop compatible objectives, align the interests of all stakeholders, and build trust by treating people from other parts of the world with respect and understanding. This is an important aspect to managing global versus local stakeholders whereby the different stakeholder groups may have opposing and competing agendas. Finding a way to align different interests is imperative to reducing conflict. It is important therefore, to have 'dualistic perspectives' (Javidan et al., 2007). This ability to manage multiple perspectives well, suggests that effective

relationship management is taking place and this in turn assists global leaders in making effective decisions such that neither the global nor the local stakeholders are negatively impacted.

Similarly, relationship management was found as critical in a *Harvard Business Review 10-year longitudinal study of executive transitions* (Carucci, 2016). This study included more than 2,700 leadership interviews, in order to identify the skills of top performing executives. The study revealed that 4 dimensions were correlated with executive leadership success. They found that exceptional performing executives excelled at all 4 dimensions, whereas, good executives excelled in 2 or 3. These dimensions were knowing the whole business, making good decisions, knowing the industry, and forming trusting relationships with others. First, successful executives know the whole business; they have a deep knowledge of how the pieces of the organization fit together to create value and deliver results. Second, successful executives are great decision makers; they state their views, engage others' ideas, analyze data for insights, weigh alternatives, own the final decision, and communicate that decision clearly. This skill inspires considerably higher confidence and focus among those they lead. What was particularly interesting in relation to this was that the study revealed that top performing executives use a balance of instinct and analytics. They found a continuum, whereby some leaders 'trust their gut',

combining experience with emotion into well-developed intuition. At the other end of the continuum is the leader who relies on mining for data to give insight into solving the problem or addressing the decision. However, the most effective executives, function fluidly within this continuum and have control over their predispositions for being overly impulsive or paralyzed by analysis. Therefore, they self-regulate. Third, successful executives know the industry; they have a solid grasp on the ever-changing context within which their business competes and use their know-how of their business to see trends and emerging opportunities over multiyear timeframes in order to deal with emerging competitive threats. Fourth, successful executives form deep, trusting relationships. These executives form deep connections with superiors, peers, and direct reports, studying and meeting the needs of key stakeholders. Notably, they are able to communicate in compelling ways to form mutually beneficial, trusting relationships. It is interesting to note that these individuals see the value in building relationships and maintaining equilibrium with all stakeholder groups. They appreciate the impact this will have on their ability to work through conflicts and the knowledge that these stakeholder groups bring to them, which ultimately allows them to operate more effectively. This is the basis of proposition 3c. Global leaders will make a linkage between maintaining relationships and future information flow arising from those relationships.

In this study, of these 4 dimensions, it was the fourth, relationships that led to the demise of the second best executives in the study. What was apparent was that the most successful executives led with a humble confidence that graciously extended to caring for others. The second best executives were notably focused on managing perceptions, and creating an illusion of collaboration while trying to keep hidden their self-interested motives. They were not genuinely interested in others.

While there is general agreement that relationship management is a necessary skill for global leaders, what is unknown is how much these relationships influence decision-making in a global context. Having a global mindset requires the careful balancing of different and opposing stakeholder agendas and therefore, there is an assumption that in making decisions, the impact on the relationship aspect of these stakeholders is taken into account. The gravitas attributed to relationship management will be explored in this study.

In summary, global leaders are skilled in developing and maintaining multiple stakeholder relationships. In turn, these relationships provide a steady flow of information, which the global leader uses to make effective decisions. They are also skilled in segregating relevant from irrelevant information such that the essential data can be used for decision-making purposes. The cognitive

processes used to manage both relationships and information is proposed to be global mindset.

Global Mindset as a Cognitive Process

While global mindset is an important theme in the international business strategy and organizational behavior literatures (Clapp-Smith & Lester, 2014), what is less clear is what the construct is, due to different authors attempting to describe it in different ways. Global mindset has been defined as: a state of mind or mental model (Jeannet, 2000; Kefalas, 1998), an attitude (Perlmutter, 1969), a cognitive process (Murtha et al. 1998), skills and abilities (Adler & Bartholomew, 1992; Arora, Jaju, Kefalas, & Perenich, 2004; Maznevski & Lane, 2004), a motivational state (Estienne, 1997), and a perspective (Bartlett & Ghoshal, 1998). This has created severe challenges for ongoing research. For the current study, the view is that global mindset is a cognitive process which the global leader uses to make decisions that incorporate both a global and local perspective. Managing the paradox between local and global stakeholder groups acts as a trigger point for these cognitive processes.

Over time, global mindset has evolved from being considered as a unitary construct, to being viewed as multifaceted (Gore & Sadler-Smith, 2011). Despite a lack of a universal definition, what is evident from the existing literature is that due to the size and scope of a global leader's role, the role is

very complex. Therefore, the global leader has access to significant volumes of information, from multiple sources and there is a need to manage this knowledge via a global mindset. This is likely to include filtering information such that only the most essential and relevant information is used for decision-making purposes.

Studies on cognitive complexity have routinely found that cognitively complex individuals have more advanced information-processing capabilities. Research also shows that cognitively complex people seek out more extensive and original information (Dollinger, 1984; Karlins & Lamm, 1967; Streufert & Swezey, 1986), spend more time interpreting it (Dollinger, 1984; Sieber & Lanzetta, 1964), identify a larger number of dimensions and concurrently, are able to possess and employ a number of opposing and complementary explanations (Bartunek et al., 1983). Cognitive complexity has also been associated with a tolerance for ambiguity (Streufert, Streufert & Castore, 1968), an ability to have more rounded impressions (Streufert & Swezey, 1986), a capacity to reframe problems (Lepsinger, Mullen, Stumpf & Wall, 1989; Merron, Fisher & Torbet, 1987), an ability to balance contradictions, and a consideration of more alternative points of view (Chang & McDaniel, 1995). All of these are important cognitive processes which are believed to be helpful in balancing the competing interests of global and local stakeholders.

Other authors believe that global mindset is directly linked to decision-making as it is frequently associated with the mindset needed for global leadership (Cohen, 2010) in a global business context (Begley & Boyd, 2003) to make strategic business decisions. As defined by Cohen (2010), global mindset is "the ability to think and act both locally and globally at the same time" (p. 5). This definition is intended to demonstrate that there is a need to balance creating global consistency, which does not allow deviations from a global standard, with a need for differences which are created by local cultural practices and norms. Thus, "leaders need to understand the facts about different countries, cultures, and business procedures, as well as local information about customs and practices, both from a social and business perspective" (Cohen, 2010, p. 28). Clapp-Smith and Lester (2014) take this definition a stage further by explaining global mindset as a cognitive process model of mindset activation and mindset switching. These authors seek to explain global mindset in terms of how different primes activate the most appropriate mindset and how this aids problem solving. This cognitive process operationalizes the duality and dynamism of perspective taking and decision-making necessary for global leader effectiveness (Pucik, 2006). This is quite different from other operationalization's of a global mindset that describe it as

a static construct that individuals have in varying degrees or not at all (Clapp-Smith & Lester, 2014).

Another definition of global mindset considers it as a type of expert decision-making (Hoffman et al., 1995), which requires the balancing of rational, logical information with intuitive information (such as reading subtle cues or making inferences). Global leaders are expected to operate in ambiguous circumstances, such that there may not be a lot of information available for the global leader to make a low risk or risk free decision. Alternatively, the global leader may be exposed to first time conditions or scenarios and therefore, they do not know what to do, thus requiring them to use information from their unconscious minds, interpret subtle cues and draw inferences. In this instance, global leaders are using a 'gut feeling' or sense of knowing what to do, without all of the information to make an informed decision. In balancing the needs of global and local stakeholders who may have opposing agendas, there is a risk of damaging the relationship on one side or the other. The effective global leader will attempt to minimize this risk. One example of this is when the situation creates a 'win-lose' scenario, in that one stakeholder group benefits and the other suffers a detriment. In these cases, it is proposed that a set of both rational and intuiting processes kick in which helps consider all possible decision options and the impact of each on the

relationships with different stakeholders. Therefore, global mindset may be viewed as a form of expert decision-making which makes use of both rational and intuitive information processes. The usage of both of these types of processes allows full consideration of the impact of decisions on both global and local stakeholders such that decisions can be made which manage the paradox between opposing goals.

Begley and Boyd (2003) believed that mediating the tension between the global and the local is very important, so they analyzed global mindset at the corporate level. Further to this, they insisted that in order to embed global mindset at the organization level, supporting policies and practices must be in place to manage tensions relating to structural (global formalization vs. local flexibility), processual (global standardization vs. local customization), and power (global dictates vs. local delegation) concerns. Ultimately, they argued that the effect of global mindset on organizational effectiveness is moderated by environmental conditions and the company's international strategy (Levy et al., 2007).

As Bhaget, Triandis, Baliga, Billing and Davis (2007) explain, "global leaders are those individuals who successfully manage the ongoing interactions between industry-specific, organization-specific, and person-specific factors that are present in their work lives" (p.193). Global mindset is represented in

the context of industry specific antecedents (e.g. fast product lifecycles), organization specific antecedents (e.g. effective knowledge management systems), and person specific antecedents (e.g. cognitive complexity). Bhaget et al. (2007) further explain that cognitive complexity in relation to global mindset is concerned with one's ability to dial into and balance competing and often conflicting country, functional, and business concerns that arise in global organizations in unpredictable ways.

The benefits of global leaders using global mindset has been demonstrated through research. For example, Miocevic and Crnjak-Karanovic (2012) found in a study examining the relationship between global mindset and export performance of small and medium enterprises that there was a significant and positive relationship between global mindset and export performance. Interestingly enough, the relationship was not moderated by the organization's international experience.

Paradox Management is Global Mindset

Rhinesmith (2001) refers to global mindset as 'paradox management' rather than resolving problems, and explains that senior leaders such as CEOs and CFOs will need to manage these paradoxes in future. This paradox management is a more modern day version of Friedman's Lexus and the Olive Tree (Friedman, 1999), whereby there is a trade-off between global

standardization and local customization. With our growing global economy and increased usage of technology to provide services, Friedman (1999) reminds us that we can be dialing a call center in another part of the world using human resources from another country, while dealing with a local in-country issue. This dynamic presents both opportunities and challenges for global leaders. Leaders in this example may take advantage of lower labor costs in another country to resource the call center; however, they also have to deal with the challenge of working across different time zones and language abilities of non-native speakers who are dealing with customers in another country. For the global leader, this means having to manage two very different stakeholder groups-global versus local. The customer is global and the call center staff are local. Each have different needs and potentially opposing agendas. To demonstrate the differences between the 2 groups; the customer does not want to talk with a non-native speaker, outside their home country, who may not even have visited the location in which the customer resides and therefore may not be able to relate to the enquiries or issues raised. The call center staff does not want to work shift patterns that accommodate the customers' time zones, because it does not fit with their family and/or other commitments within the country where they reside. Both have different and sometimes opposing needs and this creates an ongoing tension that the global leader must

manage. This is referred to as 'paradox management', as the leader must find solutions which allow the needs of both groups to be sufficiently satisfied, while also not causing a detriment to either party. This may be a completely different skillset to those traditionally assumed to be essential for CEOs in the past. More specifically, decisive decision-making was valued previously, even if this caused a detriment to one party. Now, we are referring to a need for CEOs working in a global context to find compromises in order to sustain equilibrium.

In a white paper by The Center for Creative Leadership discussing 'paradox management', the authors describe that paradox management involves developing a mindset beyond an either/or logic, and acknowledges that not all problems can be solved (Leslie et al., 2015). Some problems are cyclical or recurring in nature and can polarize individuals into groups. It is therefore, a matter of seeking equilibrium. The author of this study believes that The Center for Creative Leadership are describing 'global mindset' and that paradox management is part of this. However, the research model for this study differs from their definition in that paradox management is only part of global mindset, albeit a very important aspect of it. In the Global Mindset Model proposed in this study, paradox management acts as a trigger for a set of cognitive processes which are then activated and driven by the context, ultimately ending in the global leader making decisions which seek to find

balance in relation to having a positive impact on both the business and personal relationships.

In relation to day to day work activities, global leaders will inevitably experience competing agendas between local and global stakeholders and this creates the paradox which must be managed. If a global leader identifies strongly with either the local or the global group (considering it as the in-group), his or her ability to make effective decisions may be affected. For example, a leader may not fully consider the needs of both groups (the in-group and the out-group) and all relevant, essential information, which may impact the out-group negatively. Global mindset requires the ability to balance sometimes competing agendas between two different stakeholder groups, while synthesizing a wide range of information and negotiating outcomes ideally beneficial to both parties, or at the very least, not causing a significant detriment to either. In considering the needs of both, the global leader will also consider the impact of decisions on both groups.

Typical paradox management for global leaders includes a tension between centralization and localization. Both have their advantages and disadvantages. For example, centralization leads to lowered costs and standardized processes however, it can also be viewed as bureaucratic and full

of red tape (unnecessary restrictions). Similarly, localization is likely to give answers to customers unique needs and encourages an entrepreneurial spirit, but it can also lead to silos and redundant systems. Another tension might be managing business practices which support social responsibility and business practices which support financial responsibility. This is considered to be a healthy organizational tension, as balancing this will increase the organization's overall competitiveness and reputation. However, that tension may be negative, in that it could involve balancing tensions between business practices undermining the organization's reputation and business practices undermining the organizations competitiveness. Each of these examples, demonstrates that the global leader must think about the associated cause of different factors and its subsequent effects, whether this is positive or negative, such that the global leader can manage this tension effectively. This is the basis of proposition 1b. Global leaders will identify relevant 'cause and effect' information which will suggest rational information processing.

This research aims to explore the cognitive processes underlying key decisions made by global leaders as they consider the different and competing agendas from 2 different stakeholder groups; global and local, as they manage the paradox between them. It is anticipated that in managing this tension, that

global leaders will rely on rational and intuitive information processing to make effective decisions.

It has been acknowledged via research that many adults have not developed their intuitive skills and that many leaders are, in fact, discouraged from using intuition to make decisions (Burke & Miller, 1999). However, what is also clear is that organizations, leaders, teams, and individuals that manage paradoxes are better performers than those who do not (Leslie et al., 2015).

Intuition

Traditionally, intuition was considered too elusive to define and too difficult to measure (Sinclair & Ashkanasy, 2005), although it has now evolved into the management literature, especially in relation to business strategy and improved business performance. Woiceshyn (2009) defines intuition as ‘‘insight that bypasses reasoning’’ (p. 298). Intuition is commonly understood as an inexplicable hunch or gut feeling that tells a person what to do (Woiceshyn, 2009).

Hayward and Preston (1998) argue that linear rational models do not perform satisfactorily for businesses operating under rising pressure and ambiguity (Andersen, 2000; Kuo, 1998). As a result of this, Eisenhardt (1989) and Wally and Baum (1994) suggest that organizations are embracing more holistic approaches to non-programmed decisions. In particular, research into

alternative decision-making methods facilitated by the threat of high decision costs (Tomer, 1996), increased time pressure (Kuo, 1998), inadequate information (Agor, 1984; Goodman, 1993), and fast-paced change (Andersen, 2000), along with other factors is common, triggered by new economic and technological factors since the 1980s (Hunt, 2000). These factors have led researchers to question the effectiveness of rational decision-making as the only viable alternative. The need for organizational agility and increased speed in decision-making has driven an interest in research on the intelligence of non-conscious thought (George, 2009; Hofmann & Wilson, 2010), the potential accuracy of thin-slice judgments (Albrechtsen, Meissner, & Susa, 2009; Ambady, 2010; Ames, Kammrath, Suppes, & Bolger, 2010), and the conditions under which fast and frugal heuristics foster effective decision-making (Gigerenzer, 2007, 2008; Gigerenzer & Brighton, 2009). While cognitive psychology has led us toward the use of heuristics, such as scripts and expert schemas, as manifestations of intuition that facilitates quick and complex decision-making, we are unclear as to where these intuitions come from and how they relate to rational analysis, which is considered the usual hallmark of strategic decision-making (Woiceshyn, 2009).

Studies generally have found systematic, rational analysis insufficient to

deal effectively with complexity, which is the hallmark of global leadership. A growth in the literature supports a view that senior managers routinely make decisions based on tacit knowledge grounded in experience (Agor, 1986, 1990; Giunipero, Dawley, & Anthony, 1999; Kleinmuntz, 1990) and that other experts use intuitive decision strategies almost exclusively under high stress conditions (e.g. the decision-making processes of military pilots and commanders) (Kaempf, Klein, Thordsen, & Wolf, 1996).

A linkage between use of intuition and organizational performance has been established. For example, research by Douglas and John (1974) over a 10-year period with 165 CEOs and presidents of companies showed that 80% of the leaders who doubled or nearly doubled their profits over a 5-year period had above average scores on intuitive ability (Church, 2005). Intuitive leaders were found to be more successful than their more analytical counterparts. Agor (1989) also showed that the most senior executives rated significantly higher than middle-or lower-level leaders in intuitive abilities. This suggests an increased need for senior executives to rely on intuitive decision-making relative to more junior leaders, as they may have to make more judgments with little or no information.

Similarly, Sadler-Smith (2004) found a positive relationship between the use of an intuitive decision style and small firm's financial performance

measured over a two-year period. Also, in a study by Khatri and Ng (2000), where they compared the use of intuition (described in terms of senior managers not having enough information, and therefore having to ‘‘make important decisions based on a gut feeling” (p. 80)) in strategic decision-making across 3 different industry types, they found that greater use was made of intuition in strategic decision-making in the computer industry, than in banking or utilities. Intuition showed a negative association with the financial performance of banks and utilities, and a positive association with the financial performance of computer companies. This suggests that contextual factors such as the industry sector or organizational culture/climate may affect whether intuitive decision-making is considered effective or not.

Woiceshyn (2009) conducted a study with 19 CEOs in oil companies, aimed at identifying ‘good minds’ and ‘not-so-effective thinkers’ using a scenario typically faced in the oil industry. The realistic decision situation gave 3 strategic alternatives and the leaders were asked to think aloud about what they would do in the scenario and why. They were then asked some semi-structured questions (about desired additional information, decision principles, their background and motivation) to further probe for additional detail. The study found that successful executives manage complex decisions through the usage of 2 key processes - integration by essentials (IBE) and spiraling. As a

result of this research, a model of strategic decision-making was identified that consisted of 3 parts: integration by essentials (an interplay between intuition and rational analysis), principles (principles identifying the underlying cause-effect relationships that apply to a wide range of specific situations and are derived from the IBE process), and spiraling (decision-making using iterative 'loop-thinking'). This study clearly showed that experience is not the only factor affecting the quantity and quality of intuitions. The way knowledge is filed and recalled influences the quality of intuitions and the speed of recall, which affects the overall speed and quality of decision-making. The author argues that if new knowledge gets filed randomly or without any labelling, it will be difficult to retrieve. The reverse is also true. Scripts are prone to biases and can become decision traps. Effective decision-makers therefore depend on guiding principles based on the identification of cause-effect relationships applicable to a variety of different contexts. This helps with retaining and retrieving knowledge. Notable in the CEO interviews were quick decisions, disciplined thinking, and a continuous assessment of the quality of the information they had, including considering multiple options. They did not latch onto the first idea too soon without backing by evidence, and they sought perspectives from multiple stakeholder groups. For this reason, the 'good thinking' CEOs wanted to have teams with diverse backgrounds and opinions.

The Woiceshyn (2009) study established that 'good thinkers' exhibited fast, effective decision-making through rapid and intuitive knowledge retrieval, using a set of guiding principles applied to the decision situation. This pattern was referred to as spiraling as it consisted of several iterative passes or loops, to consider different options before arriving at a final decision. This study is particularly relevant to the global mindset model proposed for this research, which states that both rational and intuitive processes are used to make decisions. It is anticipated that this occurs by developing a set of guiding principles which includes a strong importance placed on relationships, and where the segregation of relevant from irrelevant information takes place using spiraling to consider multiple decision options before finally agreeing on a final decision. Therefore, demonstrating the value of intuiting when making decisions.

Using Intuition

Research tells us that there is some level of agreement that in certain circumstances, it is beneficial to employ an intuitive decision-making approach (Hodgkinson & Sadler-Smith, 2003; Kahneman & Klein, 2009; Shapiro & Spence, 1997), although there is no agreement as to what these circumstances are. One argument is, however, that intuition tends to be effective in relation to certain types of tasks (Hammond, Hamm, Grassia, & Pearson, 1987; Inbar, Cone, &

Gilovich, 2010; McMackin & Slovic, 2000). For instance, tasks that can be broken down and ordered sequentially tend to be more conducive to analytical decision-making, whereas tasks that are not able to be broken down are more suited to intuition (Hammond et al., 1987).

A study by Burke and Miller (1999) established that 56% of the sample described using their experience (both work and personal and successes and failures) as the basis for their intuiting, followed by 40% who reported affect-initiated decisions based on feelings and emotions. Forty-two percent of the sample reported that they developed their intuiting skills through experience. It is interesting to note that the majority of respondents use experience and these experiences need not be business related. Forty-seven percent of the respondents reported using intuiting often. The majority of respondents advised that there were no specific physical or emotional signals that prompted them to employ their intuition and that they invoked intuition in situations rather than using internal factors. For example, if the situation had no predetermined guidelines or rules to follow, then they would look to their intuition for guidance. Forty percent used intuition when making people-related decisions such as scheduling or dealing with complaints or when decisions needed to be made quickly or when there were first time conditions that they had not experienced before or where the situation lacked explicit cues

in terms of how to proceed. Ninety-one and a half percent of respondents reported using combined intuition with data analysis in their workplace decision-making. In terms of who tends to use intuiting more, the participants universally agreed that older, more experienced personnel and those at a managerial level or above were most likely to use intuition. Two thirds of respondents reported that they felt they had made better decisions as a result of intuition. Some interviewees reported that memory can distort decisions, with one interviewee reporting ''if your recollection and experiences are wrong, then intuition is bad'' (p. 94). The greatest benefit to using intuitive decision-making was reported to be expediting decisions (57%).

In a study by Hensman and Sadler-Smith (2011), which took place in the banking and finance sector, intuitive decision-making was comprised of 3 components: 1) nature of the task including time pressures and uncertainty, 2) individual factors such as experience and confidence, and 3) organizational contextual factors such as constraints and conventions, accountability and hierarchy, team dynamics and organizational culture. It was established that participants recognized that their intuitions were experience-driven, relying on the perception of relevant cues, retrieval of significant past experiences, and the nuanced modification of pre-existing solutions to fit current circumstances. Salient cues also enabled participants to recognize a lack of fit. Therefore, these

expert based intuitions were based on perceptions of patterns, a pattern matching exercise and finally recognition of a fit or non fit. This suggests that signaling provides contextual cues and this guides intuitive decision-making, whether consciously or not.

Duggan (2007) suggests that intuition is comprised of: 1) ordinary, 2) strategic, and 3) expert intuition. These are differentiated by 3 factors: 1) unconscious versus conscious information processing, 2) fast versus slow information processing, and 3) familiar versus unfamiliar situations. Ordinary intuition is driven by unconscious, fast information processing. It is a feeling or gut instinct. Therefore, insight happens and the individual can see clearly what to do. Similarly, expert intuition is always fast, but it only works in familiar situations not in new or unfamiliar conditions. This type of intuition is activated when an individual instantly recognizes something familiar, the way a tennis pro knows where the ball will go from the arc and speed of the opponent's racket for example, such that patterns of information are processed and recognized, resulting in snap judgments by the individual. In direct contrast to this, strategic intuition is always slow, and works for new situations only. It is a clear thought, arrived at through slow processing of information in relation to unfamiliar situations. The activation of all of these types of intuition are context specific.

It is well known that creative thinking, or entrepreneurial thinking, or

innovative thinking, or strategic thinking is required to succeed in business.

According to Duggan, however, all of these kinds of thinking happen through flashes of insight and are called 'strategic intuition' which happens over time. In contrast to this, 'expert intuition' is a form of rapid thinking where the individual will jump to a conclusion quickly when they recognize something similar or there is a perceived pattern of information. As these 2 types of intuition are quite different from each other, expert intuition can compromise strategic intuition because as you get better at your job, you will recognize patterns that let you solve problems faster and faster. That is how expert intuition works. Strategic intuition however, is different as it recognizes that the situation is new and unfamiliar and the brain therefore, takes much longer to make enough new connections to find a good answer. A flash of insight to solve the problem happens in seconds; however, it could take weeks for that moment to arrive. It cannot be rushed. The issue here is that expert intuition may see something familiar in the situation and make a snap judgment too soon. Utilizing strategic intuition requires the individual to be disciplined enough to recognize when a situation is new and therefore, self-regulate such that judgment is suspended by consciously turning off their expert intuition to allow the answer to arrive over a longer period of time.

In relation to the cognitive processes associated with a global mindset, it

is anticipated that all 3 types of intuition may be activated. Normal intuition, or using a 'gut feeling' may be used when the situation is so ambiguous that there is no data on which to make decisions. Expert intuition may be used when patterns of previous experiences can be used to extract relevant information. Finally, strategic intuition may be utilized when the leader has sufficient self-control and experience to know when to withdraw making a judgment until they receive a flash of insight through reflecting on the problem sufficiently long enough to have scoped out a novel solution to the problem. This study, however, does not attempt to sub divide intuition, merely to identify whether intuition is a core cognitive process used by global leaders when making decisions that affect both global and local stakeholders.

For the purposes of this research, global mindset is considered to be a combination of rational information processing and intuitive information processing where both approaches are used to complement one another to make decisions. The dominance of either approach is determined by dispositional and contextual factors (Burke & Miller, 1999). Research strongly supports that in ambiguous situations, leaders tend to use intuition in conjunction with rational analysis, especially where the problem is poorly structured (Behling & Eckel, 1991). Parikh et al.'s (1994) study also supports this, in that leaders use intuition more when solving ill-defined problems

without any precedent. Agor (1984) also found that leaders used intuition more when faced with conflicting facts or inadequate information. Other factors found to impact intuition are the perceived importance of the decision (Goodman, 1993) and its potential impact on the decision-maker (Kriger & Barnes, 1992).

Naturalistic Decision-Making. Naturalistic decision-making (NDM) is the most widely known type of intuitive decision-making research. It has been in existence for 25 years and is defined as the study of how people use their experience to make decisions in the field (Zsambok & Klein, 1997) or 'real-world' settings. Naturalistic decision-making focuses on how people make decisions in complex, real-world, uncertain contexts that require real-time decisions in urgent situations with significant implications for errors (Hoffman, 2015). While NDM research emerged in the 1980s with a focus upon decision-making, it has since evolved to deal with the question of how cognition adapts to complexity. It is believed that NDM helps our understanding of intuition by identifying contextual clues experts use to make their judgments (Gore et al., 2015). In terms of how this differs from other traditional types of decision making research (Zsambok, 1997), NDM is: 1) context rich, 2) usually includes experts, 3) describes the decision strategies used, and 4) is most often

concerned with the focal point within the decision-making period, including pre-choice processes and situation awareness (Stanton, Salmon, & Walker, 2015).

Clearly, there are circumstances where decision-makers are uncertain of which decision is the best. Uncertainty is linked to error, in that the greater the uncertainty, the greater the risk of making an error. Common reasons why uncertainty would occur include when there is an inadequate understanding of the situation, or a lack of information, or there are conflicted alternatives such that the alternatives being considered are insufficiently differentiated (Lipshitz et al. 2001). Decision-making error for global leaders has massive tangible and intangible cost implications; therefore, reducing the risk of error is important. This is the basis of proposition 1g. Global leaders will assess risk as part of their intuitive and rational information processing.

In conditions of uncertainty, Lipshitz and Strauss (1997) found 5 key coping strategies to deal with uncertainty: 1) reducing uncertainty by collecting additional information, 2) assumption-based reasoning by filling gaps in knowledge by making assumptions, 3) weighing the pros and cons of at least two competing alternatives, 4) forestalling which is developing an appropriate response or response capabilities to anticipate undesirable contingencies, and 5) suppressing uncertainty by either ignoring it or by relying on rationalization (Lipshitz et al, 2001). This study will examine how global leaders deal with

uncertainty while processing information or a lack of information, while making decisions in naturalistic situations.

The pioneer of naturalistic decision-making research, Klein, described himself and his colleagues as 'naturalists' whose investigations are concerned with how people actually make decisions in field settings rather than investigations that test "hypotheses drawn from mathematical and statistical theories" (Klein, 1998, p. 291). They investigated the strategies used by experienced professionals when performing complex, ill-structured, high-stakes tasks, in time-pressured, uncertain and dynamic conditions (Zsambok & Klein, 1997). Using the recognition-primed decision model (RPD), they investigated what professionals such as fire-fighters, nurses, or military commanders actually do under conditions of time pressure, ambiguity and changing conditions. RPD suggests that under such conditions, experts can make good decisions without having to consciously perform extensive, multi-attribute analyses and that they are able to do so by using their experience to recognize problems as similar to problems previously experienced. Klein believes that NDM comprises recognition, pattern matching, and the recall of learned response patterns (Gore et al., 2015). In a variant of the RPD model, the decision-maker may accept or reject a course of action on the basis of a forward projection via mental simulation. As a result of accumulated expertise, domain experts

develop complex, domain-relevant mental representations (known as schemas) and associated action scripts, which afford them not only a highly-tuned awareness of the situation, but also the capability to pattern match, in order to sense when something is 'out-of-kilter' and intuitively know what actions to perform.

Emotions and Decision-Making

While the concept of RPD in naturalistic decision making is compelling, Klein does not really explain the significance of affect in RPD. For example, "sometimes . . . we just 'feel' the problem, an emotional sense that something is not right" (Klein, 2003, p. 96). Klein argued that intuition depends on the use of experience to recognize key patterns that indicate the dynamics of the situation. As the patterns encountered in real-life situations can be nuanced and subtle, people often cannot describe what they actually noticed, or how they judged a situation as typical or atypical.

Research in the neural processing of decision-making tells us that the collection of neural systems dedicated to reasoning and decision-making (particularly decisions in personal and social domains) is the same system that influences our emotions and feelings (Bechara, Damasio, & Damasio, 2000). Contemporary decision-making theorists, therefore, propose an alternative perspective on decision-making given the gaps in the rational theories. Namely,

they propose that decision-making processes are also driven by the emotion, imagination, and memories of the individual (Brockman & Anthony, 1998). This is particularly important in crisis situations (a major, unfamiliar, and unusual situation), when leaders have had no opportunity to prepare. The use of tacit knowledge and intuitive decision processes may be the only feasible strategy when the decision-maker is under time pressures or when essential elements of the decision are hard to quantify or interpret (Polanyi, 1966). Sayegh et al. (2004) argues that in decision-making situations characterized by high stress, ambiguity, and time pressure, successful leaders adopt strategies that rely on intuitive processes and tacit knowledge, potentially aided by adaptive emotional responses.

Findings in neuroscientific research have also shown that emotions are not only the basis for thinking, but that good judgment and rational thought are largely dependent on emotional signaling (Bechara, Damasio, Tranel, & Damasio, 1997; Damasio, 1994). Further to this, studies in neuroscience have demonstrated how emotions and emotional memory (or lack thereof), rather than rationality, have determined decision quality (Bechara, Damasio, Tranel, & Anderson, 1998). Researchers therefore conclude, that emotions are essential for sound decision-making in a social environment (Damasio, 1994; Simon, 1987). Gioia (2001) asserts that ‘‘social cognition constitutes the essence of the

human experience in organizations'' (p. 345). Therefore, in human resource management, attention to the emotional dimension of social decisions and their consequences is needed. As emotions involve bodily reactions, this somatic experience accounts for the frequently described 'gut feeling' about the best decision (Khatri & Ng, 2000). Gaudine and Thorne (2001) assert that certain emotional states (e.g. positive affect and arousal), are conducive to making better ethical decision choices in organizations. Ethical decision-making is closely related to crisis decision-making as both can have profound effects on the organization and its people (Trevino, 1986). It is believed that leaders who incorporate both emotions and tacit knowledge in their decision-making processes may be better placed to successfully compete for organizational survival. Appropriate or inappropriate emotional responses make the connection between tacit knowledge and intuitive decision-making better or worse.

In relation to a good–bad evaluative assessment of potential decisions, the main feeling reaction occurs quickly and is driven by emotional, somatic, and physiological events (Bechara et al., 2000; Hastie, 2001; Zajonc, 1980). This combination of events is what Damasio (1994) refers to as the somatic marker hypothesis. The somatic marker is the emotional response, and is the decision maker's guide that forces attention on an alternative with a negative outcome

and serves as an automated alarm signal. The signal may lead to an immediate rejection of that alternative, thereby protecting the leader from future losses. In contrast, a positive somatic marker is a feeling of excitement, combined with a possible outcome viewed as an incentive. Both of these reactions then enable the leader to quickly eliminate some options, retain others, and ultimately choose an option from fewer alternatives. Such good–bad evaluative assessments quickly guide adaptive approach-avoidance actions and narrow down a large number of choices to a smaller number of options for a more thoughtful evaluation (Hastie, 2001). This is the basis for proposition 1d. Global leaders will identify multiple decisions options before arriving at a final decision which will suggest rational information processing. Somatic markers may therefore, increase the accuracy and efficiency of decisions and highlight the essential and beneficial role that emotions play in rapid decision-making. They allow for speed and energy, which are vital resources of the leader operating in a highly dynamic, uncertain environment. Emotions therefore, serve ‘‘a crucial override function that operates when it is necessary to interrupt the course of an ongoing plan or behavior sequence to respond quickly to a sudden emergency or opportunity’’ (Hastie, 2001, p. 15; see also, Simon, 1967).

Emotion gives structure and meaning to experiences and situations. Agor (1986) found that leaders described the experience of intuitive decision-

making as a growing excitement in the pit of their stomachs and a burst of enthusiasm and energy. Feelings are like internal guides that point us to the proper direction in a decision-making space where we may put the instruments of logic to effective use. If an emotion seems inappropriate to the circumstance, it may signal to the decision-maker that the choice being considered is not the best one. However, if an emotion associated with another alternative feels right to the circumstance, it may signal to the decision-maker that it is the one to choose. This is how the leader thinks through—and feels through—many decision options quickly and accurately (Sayegh et al., 2004). The ability to recognize and manage these 'emotional markers' such that they are used to evaluate different decision options and steer the global leaders towards the best decision, is a skill which can be learned. However, some work environments may be more conducive to promoting the usage of this, than others.

Imagine the leader facing several alternatives in a critical decision situation. All options, key components and possible outcomes are vaguely seen and simultaneously considered in his or her mind. However, before any rational decision analysis occurs, he or she experiences an unpleasant gut feeling when a negative outcome connected with a particular response option fleetingly comes to mind. These frequently unconscious emotional responses help the

decision-maker by providing an automated detection system to focus in on only the most relevant components of the decision scenario. It is here that we can see the link between emotion and tacit knowledge. The somatic marker i.e., the emotional response, works in conjunction with knowledge stores, guiding the leader through emotional signaling to attend to the most relevant information and to correctly fill in missing or incorrect information. Moreover, the combination of these two components, information held by the leader and the emotional response to its applicability in a given decision situation, result in that gut feeling about the 'right' decision—what we commonly refer to as 'intuition' (Sayegh et al., 2004). Emotions and feelings are central aspects of biological regulation, as they provide the bridge between rational and intuitive processes, which enable the decision-maker to survive in uncertain situations. Emotions do not weigh down the decision maker, as once believed. Instead, emotions enable and enhance decision processes. Therefore, they are an essential component of decision-making for global leaders. This is the basis for proposition 1f. Global leaders will identify emotional markers which will suggest intuitive processing.

Individual and Contextual Propensity for Risk-Taking

Individual propensity for risk taking may be associated with global mindset in that global leaders need to process complex information and in

ambiguous circumstances which means that they need to be comfortable managing risks. This implies that global leaders who have a global mindset may be more comfortable taking risks because the environment in which they work requires them to do so. In a study by Dohmen et al. (2015), they found that that risk aversion and impatience both vary systematically with cognitive ability. Specifically, they found that Individuals with higher cognitive ability were significantly more willing to take risks in the lottery experiments and were significantly more patient over the year-long time horizon studied in the intertemporal choice experiment. The correlation between cognitive ability and risk propensity was present for both young and old, and for males and females, although the relationship was somewhat weaker for females and younger individuals. Overall, they established that the correlation of both traits with cognitive ability remained strong and significant, even after controlling for gender, age, and height, as well as important economic variables including education, income, and liquidity constraints. In addition to this, several other studies from psychology show that higher cognitive ability is associated with greater patience (see, e.g., Shamosh & Gray, 2008).

Massingham (2013) interviewed executives at 27 of Australia's top 100 companies to examine their information-processing abilities in relation to making decisions associated with Foreign Direct Investment (FDI). Domestic

mindset was defined as the knowledge structures of top management based on their experience and learning in domestic markets before starting any international activities. Domestic mindset represents a lens through which individuals evaluate the environment and make decisions. Massingham (2013) refers to global mindset as that which influences information processing; more specifically it provides order to the information domain and also affects information processing (Levy et al., 2007). The findings show that the cognitive processes underlying the FDI decisions were risk dependent. If the leaders had not performed the activity before, they considered how difficult it would be to learn how to do the activity (make decision) or to find necessary information from an external expert. If the leaders had performed the activity before, they considered the risk associated with making a mistake (risk assessment). While all of the respondents with globalization experience preferred to do all of the FDI activities themselves (make decision), they recognized that some activities, particularly those with high risk, sometimes required external input for effective governance. When examining the information processing capabilities through various case studies, the authors found that domestic mindset respondents suffered from cognitive mistakes such as blind spots, because they failed to appreciate important differences in their domestic and foreign business environments or they failed to see opportunities or solutions. In the case

where there was successful decision making, the respondents did not make cognitive mistakes, and there were no blind spots, because they saw clearly what needed to be done (structure) and the information necessary (content). It was noted that cognitively complex respondents assessed filling the gap between what the organization knows and what it needs to know to make sensible FDI decisions.

Contextual Differences in Propensity for Risk-Taking. It is interesting to note that some industry sectors might be less risk averse and more conducive to using intuitive decision-making than others. For example, in Hensman and Sadler-Smith's (2011) study which was in the Banking and Finance sector, and which is a highly regulated environment due to the industry and government's regulatory frameworks, following rules and procedures is the norm. Interestingly, the participants in their study also reflected on this during the interviews, ''everybody respects you're working in a regulated environment and you have to work within individual limits and individual controls'' (Hensman & Sadler-Smith, 2001, p. 7). This suggests that the ability to use intuitive decision-making could be encouraged or deterred by the organization's work environment/organizational culture/organizational climate (contextual factors).

Further to this, in Khatri and Ng's (2000) research, they examined decision-making across 3 different industries in the USA: computer, banking,

and utility industries. They found that intuitive decision-making had a positive relationship with organizational performance in an unstable environment (or state of flux), but found a negative relationship in a stable environment. This is very relevant for global leaders who are required to perform in an environment which is subject to constant change and therefore unstable. There has not been any multiple industry sector field study conducted to date examining the rational and intuitive information processes which support global leaders decision-making in relation to global mindset.

Two different industry sectors were used for this study; each with a different organizational culture/climate driven by its specific sectors core business activities. A highly entrepreneurial/innovative company was selected, which was anticipated to have a preference for more intuitive information processing, and a company with a highly regulated environment was also selected which was anticipated to have a preference for more rational information processing.

Age/Experience

Most naturalistic research has been carried out with adults. However, youths and seniors have also been examined. There is some debate about whether there are age-related differences among groups. Dror, Katona, and Mungur (1998), Finucane, Kaiser, Slovic, and Schmidt (2005), and Gardner,

Scherer, and Tester (1989) believe there are age related differences. Finucane et al. (2005) showed that significant age-related variance in decision tasks could be accounted for by exogenous social variables, health measures, basic cognitive skills, and attitudinal measures. In addition to this, Mather, Knight, and McCaffrey (2005) highlight that diverse goals affect the comparison processes of younger and older adults. In contrast to this, Chen and Sun (2003) and Moshman (1993) state that there are no differences between these age groups. These authors suggest that older people normally use strategies to compensate for their limitations in working memory. Age is important in research from the naturalistic perspective because this approach is chiefly based on the individual's competence, and competence is normally acquired with increased age.

Gender

Gender is also viewed as an important factor in paradox management. As with age, scientific literature offers contradictory opinions about this issue. Some significant sex differences have been identified, although most of them are small (Hatala & Case, 2000; Hawkins & Power, 1999). Women may be more influenced by the environment, may dedicate more time to the decision because they are more hesitant, may seek more information and focus more on the process (Gill, Stockard, Johnson, & Williams, 1987; Rassin & Muris, 2005;

Wood, 1990). In addition to this, some research has found that women have a more participative, interactional, and relational leadership style (Fondas, 1997), which is believed to be more suited to a global setting (Hampden-Turner, 1994). Similarly, Adler et al. (2000) highlight that women's contribution as global leaders is increasing due to the inclusion of women in the workplace and their upward movement into leadership roles in multinational organizations. He also points out that women executives are particularly effective at making and maintaining relationships within global communities. This is especially important in global leadership roles.

The Current Study

Researchers and practitioners suggest that a global mindset is critical for global leaders to deal with the complexity inherent in global organizations, and to make effective decisions. The purpose of this study is to better understand the cognitive processes global leaders use when making global decisions in relation to balancing the needs of global and local stakeholder groups. Understanding the variables that affect decision-making is important, both for science and for individuals. For science, because it provides information to enable us to understand, explain, and evaluate one of the most complex cognitive mechanisms, and for individuals, because it helps them make efficient and appropriate decisions in their daily and work lives (Byrnes, 1998; Herr &

Cramer, 1996). Given the frequency with which global leaders are exposed to ambiguous situations where they have little or no information to guide their strategic decision making, it is expected that global leaders will draw upon a wide range of experiences in both their personal and work lives to guide their decision-making. This process is proposed to fall within the realm of naturalistic decision-making.

Figure 1 depicts a proposed model of global mindset developed for this study (see Appendix A). The purpose of this model is to take the literature one step further by demonstrating how the features of global mindset literature relate to each other and interact to facilitate understanding of complex decision-making processes. In the definition used by the author of this study, global mindset is a highly complex cognitive process (Murtha et al., 1998) used to make expert decisions within a global context. Much of the global leader's role requires them to develop and manage relationships and to make decisions which do not impact people negatively, such that long-term relationships may be maintained. At the center of this is paradox management, which is a combination of balancing global and local stakeholder needs by using both conscious and unconscious information processes to filter through information such that relevant information can be segregated from irrelevant information, while also considering the impact of various decision options on the

relationships with both global and local stakeholder groups before arriving at a final decision.

The following studies/associated theories are the foundation of this research. First, a study reported in Harvard Business Review which highlighted that in terms of making the most effective decisions, leaders use both rational and intuitive information processing to broaden their field of vision and to gain access to the widest possible range of information such that they can extract the most relevant and important information in order to make decisions (Carucci, 2016). This is the basis of proposition 1. Global leaders with a global mindset will use both rational and intuitive information processing when making decisions and proposition 1a. Global leaders will identify relevant factual information which will suggest rational information processing. It also supports proposition 2. Global leaders with a global mindset will separate essential information from non-essential information before making decisions. Finally, it also supports proposition 3. Global leaders with a global mindset will identify the need and make efforts to maintain relationships with both global and local stakeholders when making decisions, 3a. Global leaders will consider the impact of decisions on global stakeholders before making a final decision, 3b. Global leaders will consider the impact of decisions on local stakeholders before making a final decision and 3c. Global leaders will make a linkage

between maintaining relationships and future information flow arising from those relationships.

Second, theories of naturalistic decision-making which tells us that intuition or NDM is a form of expert decision-making. In NDM, experience translates into tacit knowledge which then leads to automated, pattern recognition of information, thus leading to faster decision-making (Klein, 2015). This is the basis of proposition 1e. Global leaders will identify relevant past experiences which will suggest intuitive processing. Third, Trompenaars and Woolliams (2004) intercultural competence model which suggests that recognition, respect, and reconciliation of cultural differences (3R's) are required for effective intercultural communication and decision-making. However, this model is largely applicable to differences of any kind and, therefore, is viewed as a solid diversity model with regard to how to approach differences among people more generally. This also aids relationship building and the avoidance of conflict. This is the basis of proposition 3d. Global leaders will consider cultural factors in relation to maintaining relationships.

This study examined whether global leaders used the proposed differentiators of global mindset including: 1) balancing rationality and intuition, 2) identifying relevant from irrelevant information, 3) the maintenance of relationships with making effective decisions, 4) consideration of multiple

options, and 5) recognition, respect and reconciliation of differences and values among different stakeholder groups.

Cognitive task analysis (CTA) was used to identify and understand the thought processes global leaders use to make difficult business decisions. These cognitive processes associated with global mindset are used to manage the tension between global and local stakeholder groups. The specific cognitive processes are outlined in the propositions below. However, to conduct the analysis, a modified grounded theory approach was used and an openness to alternative themes emerging from the data was adopted.

Propositions

P1. Global leaders with a global mindset will use both rational and intuitive information processing when making decisions.

P1a. Global leaders will identify relevant factual information which will suggest rational information processing.

P1b. Global leaders will identify relevant 'cause and effect' information which will suggest rational information processing.

P1c. Global leaders will consider multiple decision options and the outcomes of these in relation to both business factors and relationships

before making any final decisions which will suggest rational information processing.

P1d. Global leaders will identify multiple decisions options before arriving at a final decision which will suggest rational information processing.

P1e. Global leaders will identify relevant past experiences which will suggest intuitive processing.

P1f. Global leaders will identify emotional markers which will suggest intuitive processing.

P1g. Global leaders will assess risk as part of their intuitive and rational information processing.

P2. Global leaders with a global mindset will separate essential information from non-essential information before making decisions.

P3. Global leaders with a global mindset will identify the need and make efforts to maintain relationships with both global and local stakeholders when making decisions.

P3a. Global leaders will consider the impact of decisions on global stakeholders before making a final decision.

P3b. Global leaders will consider the impact of decisions on local stakeholders before making a final decision.

P3c. Global leaders will make a linkage between maintaining relationships and future information flow arising from those relationships.

P3d. Global leaders will consider cultural factors in relation to maintaining relationships.

Methodology

Research Design

A modified grounded theory approach was adopted for this study. Theories of global mindset were reviewed and synthesized for this study and propositions were developed about the cognitive processes global leaders use to make decisions. Qualitative (Study 1) and quantitative (Study 2) data were collected to better understand and delineate these cognitive processes. Theory development was advanced between Study 1 and Study 2 data collection. In Study 1, the themes or factors were identified in relation to global mindset using 2 different industry sectors, and in Study 2, these factors were validated with another sample of global leaders in 13 different industry sectors. The goal of this study was to gain a more thorough understanding of global mindset and the cognitive processes that are associated with it.

Method

Study 1

The data collection method for this study was cognitive task analysis (CTA) which is a set of methods used to identify cognitive skills, or mental demands, needed to perform a task proficiently (Militello & Hutton, 1998). CTA usually involves the identification of declarative and procedural knowledge

(skills) used by an expert to perform a specific task in a well-defined work context (Chipman, Schraagen, & Shalin, 2000; Crandall, Klein & Hoffman, 2006). It is used to seek out information about knowledge, decision-making and thinking strategies that underlie observable task performance (Wei & Salvendy, 2004). In this study, the task was decision-making in a global context.

Researchers have identified more than 100 types of CTA (Clark et al., 2007). Diverse types of CTA tap into different types of knowledge and a variety of methods are recommended given that a single method is unlikely to be adequate (Cook, 1994; Crandaall et al. 2006; Wei & Salvendy, 2004). In particular, observations and interviews are useful when specific task performances are not well defined (Hoffman & Militello, 2008). This is particularly relevant for decision-making tasks which require cognition. It is viewed that the best time to use CTA is when cognitively complex tasks are being studied with an extensive knowledge base, complex inferences and judgment, in a complex, dynamic, uncertain, real-time environment (Gordon & Gill, 1997). Klein and Militello (2015) believe that the most exciting discoveries in a CTA study are those that result in an explanation or insight regarding the way a cognitive function is performed.

The Critical Decision Method (CDM), derived from Flanaghan's (1954) critical incident technique which is a type of naturalistic decision-making (NDM),

was utilized for this study. It has 4 essential characteristics: 1) choice (making a choice when there are concurrent alternative options (Dawes, 1988; Hogarth, 1987), 2) input and output orientation which focuses on predicting which alternative will, or should be, chosen depending on a decision maker's preferences (Funder, 1987), 3) comprehensiveness, such that decision-making is viewed as a deliberate and analytical process requiring a thorough information search (Beach & Mitchell, 1978, Payne et al., 1990), and 4) formalism which is the development of abstract, context-free models which can be tested quantitatively (Coombs et al., 1971; Lipshitz et al., 2001). The CDM uses probe questions to identify important cues, choice points, options and action plans, and the role of experience to understand the cognitive processes underlying decision making for the global leader sample. The study was conducted in 2 parts (Study 1 and Study 2) to reflect best practice in relation to cognitive task analysis (CTA) (Cook, 1994; Crandaall et al. 2006; Wei & Salvendy, 2004), whereby multiple methods are recommended.

Study 1: Face-to-Face Interviews

Sample. Participants in Study 1 were 8 senior high-potential, high-performing global leaders in two organizations: the travel industry and the

engineering industry. The global leaders were identified as those who influence and make decisions which impact both global and local stakeholders.

The interview participants were 6 men and 2 women, four from each industry (see Table 4 – Study 1 Sample Demographics). Participants were predominantly Caucasian (80%) with the remainder as Mixed Race (20%). The average age of participants was 47.6 years old. The average length of service was 13.3 years. Overall, participants had between 1 to 3 grade levels above them, thus these were some of the most senior level roles in these organizations. Job titles ranged from Chief Transformation Officer, Senior Vice President to Vice President/Director and Manager.

Procedure. The researcher acted as the interviewer and conducted the interviews with the global leaders. She had previously been a global leader for a leading international professional services firm and had worked across 150 countries and have lived in 3 countries. She has over 25 years applied practitioner experience working with senior executives and was therefore, familiar with the types of issues faced by businesses, organizational behavior, and the language pertaining to this population. This was deemed important for the interpretation of the data and for coding purposes and as a result, may produce new insights into how global leaders think.

Each interviewee was emailed in advance with the interview script such that participants had time to think about and prepare their critical incident in advance of the scheduled interview. (See Appendix C – Study 1 Qualitative Interview Script). They were also asked in writing for permission to record the interview and given confirmation that it would be deleted after the transcriptions were typed up. The researcher emailed the interviewees several times on the lead up to the agreed interview date to ensure that they understood what the aims of the research were, and what they were expected to do during the interview and to reiterate that their permission to record the interview was requested to aid the researcher. Prior to the start of each interview, the interviewee was asked again for permission to record the interview.

Participants were also instructed that the interviewer would ask probing questions such as those listed in the interview script in order to obtain enough detail with regard to their thought processes. They were also advised that if the scenario described did not meet the criteria, or started to go off tangent during the course of the interview, the interviewer would stop the interview to redirect the conversation. This was communicated in advance verbally at the start of the interview such that, permission was granted to redirect the interviewee's choice of critical incident and to ensure that any interruptions

would not derail the global leader's thought processes. See Appendix C – Study 1 Qualitative Interview Script.

Before recording commenced, the interviewer confirmed that the audio tapes would be deleted immediately after the notes had been transcribed plus all personal identifiable information would be removed from the transcripts. Interviewees were also asked whether they had any questions before the interview commenced. Other than questions pertaining to the removal of personal identifiable information, there were no other questions asked. For each interviewee, data pertaining to their age, length of service with their company, ethnicity, job title and how many grade levels were above them in their organizational hierarchy were recorded. Each interview was given a number against which data was recorded and data were analyzed only after the redacted transcriptions were completed.

Forty five minute interviews were then conducted with 4 high potential and high performing SMEs per organization using the critical decision method (CDM), a retrospective technique that provides insights into critical incidents by eliciting and documenting different types of social and cognitive expertise (Gore et al., 2015) such that a real world scenario experienced by highly effective global leaders in relation to managing tensions between global stakeholders (those outside of the global leader's home country) versus local stakeholders

(those inside the global leader's home country) could be identified. In particular, interview participants were asked to discuss a scenario which highlighted the competing or opposing agendas of these stakeholder groups, as well as how the global leader tackled this in relation to the critical decisions they made. Using a think-aloud approach, each participant was asked to identify and describe a major event where they had to make decisions in relation to managing this tension. Participants were asked to think aloud as to how they came to their diagnostic decision (Hoffman et al., 1995). Think-aloud interviews help researchers understand how respondents cognitively process the questions and answers, such as whether interviewees understand the questions in the same way as the researcher, how interviewees recall information, and whether interviewees recall information or simply guess (Schmeck et al., 2015). It also provides some insights into the global leaders thought processes as to how they manage the problem and how they reached an overall decision.

At the start of the interview, the interviewer asked if the interviewee could break down the incident and the decisions they took into between 3 to 6 steps, although she also made it clear that this was not compulsory and only to be used as a guide to help the interviewees organize their thoughts. The goal was to get the SME to walk through the task in his/her mind, verbalizing major

steps. This was not applied rigidly, however, as some global leaders used this framework to guide their thinking and others had much to share, such that they did not choose to organize their thoughts in this way. The interviewer allowed complete flexibility for interviewees to choose whether to use this framework or not.

As the interviewee described the task and how they approached it, each event was probed by the researcher for situation assessment, actions, critical cues, and potential errors surrounding that event, including any biases. While conducting the interviews, the researcher was very aware of the role she was playing in both the disclosure of the information and in the direction the interview was taking and therefore, she regulated her choice of questions, the comments made and the number of interruptions that was reasonable for each interview. In particular, managing the number of interruptions for the interviewee, such that it did not impact the direction of the conversation, nor speak for the interviewee, but was sufficiently frequent enough to be able to use a constant comparison method during the interviews. In other words, the researcher listened to the interviewee, stopped them, summarized what they were saying to; a) ensure the researcher was correctly identifying the main themes or important points relating to the incident and to check this understanding with the interviewee, b) give the interviewee an opportunity to

rephrase or provide additional information or to change the direction of the interview at these summary points if they wished to do so, or where there was any misunderstanding regarding the interviewers interpretation of the incident, and c) allow the researcher to think of themes in real time that were associated with the research model, such that she could jointly analyze and code the data at a high level against the proposed research model as it was being communicated by the interviewee. This also allowed the researcher to decide which data to collect next and where to find it by the choice of follow up question. At the end of each interview, the researcher therefore, had a good sense of the overall themes pertaining to each interview at least at a high level, even before the data were coded. In other words, the researcher was evaluating themes in the responses relative to the proposed model, as well as being open to alternatives, both during the interview and once all the data was collected in the formal analysis phase.

During the interviews, the interviewer avoided asking any leading questions, such as 'do you think using your intuition is important to making decisions?' Probing questions were used (See Appendix C) to fully understand the rationale for their thought processes, which factors they considered, and their thoughts leading up to their final decision, which information they used and which information they disregarded and why, such that the global leaders

judgments, assessments, problem solving, thinking skills and using their intuition (gut feeling) could be assessed. These efforts were aimed at uncovering insights into the global leaders thought processes and ensuring that a data driven process could be used for coding purposes. While the researcher was listening to the interviewees, she was also tapping into the emotions felt by them (happiness, frustration, disappointment, etc.) which aided her understanding of how the global leaders were making decisions.

It was noted that not all incidents had concluded. There were some cases where the issue was still ongoing even though the global leader had made decisions pertaining to the incident. This was not viewed as a problem to data collection or interpretation, as the global leader had already completed the majority of the thinking in relation to resolving the problem or incident.

Data Analysis

A thematic analysis was conducted during Study 1. This is a method of identifying, analyzing, and reporting patterns or themes from data. While the proposed research model identified global mindset as a cognitive process, the grounded research approach taken allowed for the data to reveal fresh insights as well. The interviewer's experience was viewed as important to both the development of the research model and to the interpretative phenomenological analysis (IPA) which took place (Braun & Clarke, 2006).

Similarly, her applied experiences also allowed her a greater understanding into the language and dialogue used by global leaders, and the meaning behind these. She was aware that broad categories should be used in both the design of the research model and for coding all factors on the basis that the categories or themes needed to apply to all types of scenarios and events which global leaders would experience.

Repeatedly listening to, and typing up the transcriptions for each interview allowed the researcher to consider the incidents sentence by sentence, pausing for reflection after each sentence and having an opportunity to reflect on previous sentences and the meaning behind each, including any emotions that were displayed by the interviewee through their tone of voice. This was important especially where 2 factors emerged in the same sentence or where there was an overlap of factors such that it was difficult to determine which factor was being described. For example, risk management and relationship management were noted as overlapping in one incident, whereby managing the loss of a relationship could technically have been coded to either, however understanding the intent of the interviewee was deemed as an important criterion in separating out which factor was primarily being demonstrated and was central to the underlying meaning for each incident. All other factors emerging from the interviews were also coded. Where these

appeared in the same sentence, a primary factor was identified and others were considered secondary to the primary factor. To do this, the researcher focused on questions such as: 'What is the intention here? What are the underlying intentions of this interviewee in relation to what they are describing?' The data was therefore, interpreted using both a semantic or explicit level (looking at surface level meanings generated from the words spoken and used by the interviewee) and also at a latent or interpretative level (broader meanings and interpretations). In the latter case, the intention of the interviewee was used to interpret the meaning and subsequent themes. Therefore, both data driven (coding based on written transcriptions) and theory driven coding (research model was used) occurred. To explain this, the factors for the research model originated primarily from theory, however the actual factors that emerged from the data were identified using thematic coding and were found using a data driven process.

The transcribed face-to-face interviews were then analyzed following a 3-stage procedure (unitizing, categorizing, and classifying) (Butterfield et al., 1996). First, the thought units (TUs) were identified (unitizing). Thought units ranged from a phrase to several sentences. An example of a TU from an interview was ''…the customers I met with all said, and I met with 7 different individual groups of customers, and they all said they were all absolutely

pleasantly surprised, of how that had worked and how we had managed to do it without losing our capability.'' Second, TUs were coded into emergent categories and finally classified. In the example just given, the description given by the global leader suggested that great importance was placed on meeting with their customers to maintain and retain the relationships as they moved through some organizational changes. In other words, interviewees reported that relationship management was linked to business factors. The business factor in this scenario was a necessary change to the organizational structure and this in turn, was a risk to losing customers, such that the global leader needed to influence the retention of customers by managing those relationships. This is a great example of how the global leader thought through 'cause and effect' in this scenario or demonstrated systems thinking. In this case, the global leader had identified that the organizational changes and other proposed changes presented a business risk that could result in a loss of customers and therefore, the meetings were intended to keep the customers informed and the relationship intact during these changes. It should be noted that some statements were coded for multiple factors.

During the coding process, the transcriptions were searched for the factors identified in the proposed model and/or any other factors which appeared consistently in the data across interviews (See Table 2 – Study 1

Results - Global Leader Qualitative Interview Factor Summary). This allowed the researcher to test whether the propositions were supported and/or, if additional cognitive processes had emerged. Any factors that appeared in at least 50% of the interviews were deemed to be significant and should be retained as part of the model. The threshold for being significant was set bearing in mind the following: given the range of different incidents described in the interviews, and the even wider range of different contexts that exist for global leaders more generally and the dynamic nature of their roles, if factors appeared in 50% of the interviews, this was considered as significant. Any new factors that also met this criterion were also sourced from the data and included into the model for the same reasons. Each interview was coded showing specific statements to support each of the factors identified in the data.

A second stage of analysis for Study 1 then took place, whereby a relationship mapping exercise was conducted using the transcriptions for each interview. The researcher looked for a) whether relationships existed between factors, b) the direction of those relationships, and c) whether the direction of the relationship went from one factor to another (A to B), or whether a reciprocal relationship existed (A <-> B). This was intended to identify whether there were any common relationships between factors and across scenarios.

Results

For Study 1, all factors shown in the proposed model (see Appendix A – Figure 1) were consistently reported in the global leader qualitative interviews (See Table 1- Results Global Leader Qualitative Interview Factor Summary). To demonstrate the coding process performed by the interviewer, some examples from the data are outlined below:

Business Factors. One interviewee said: "…well it would have to be, it would ultimately be about, profitability. So the vast majority of the product had to be at a better price than what we were buying it at the time." This interviewee explained that the most important consideration in relation to his overall decision-making was business factors (i.e. profitability), and then he explained what he needed to do to ensure that profit could be made.

Differences (business processes or people). "Everyone is different and perhaps we need a bit of diversity in the organization to deliver results, but some people find it uncomfortable to sit in a diverse organization because they would rather be surrounded by like for like people." This global leader was explaining that difference is a positive thing in terms of delivering organizational results, but some others found it uncomfortable to work with others who were different from themselves.

Emotions (self and others). "I would take a decision and then I would either see people looking confused or nodding, and I could quickly sense if I needed to do some more work on a certain area or we were on the right track…" The global leader explained that he, and a team of others, were in a situation which he and those others had not dealt with before. Therefore, he was unsure whether the decisions he was taking were the right ones. To sense check his decisions, he used the other team member's emotional cues (confused expressions, etc.) to either validate his decision or to change direction in relation to his decision-making.

Experience (self and others). "…I had only known him for 6 months, but my experience in the previous 6 months was one of building up trust between me and him and I felt he was absolutely the right man for the job." This global leader described that his experience of building up trust with this individual had allowed him to confidently make the decision to allocate this person into a key role on the project.

Information Flow. "So we had to make sure we had a policy out, so we could advise customers who were essentially due to travel, and of course, we didn't know how long we were not able to fly, so you kind of do it on a rolling basis." In this scenario, the interviewee described the need to keep the

information flow open between the company and the customers, in order to manage customers' expectations. The usage of a policy helped customers understand the reasons why they were unable to travel home immediately and why prioritizing some customers over others was necessary, in order to ensure their safety.

Information Management. "Getting the legal advice and giving the legal advice as to what our rights were in respect to the investigation that the authorities were going to be doing, what information we had to provide, what information we did not have to provide, what access we had to give to our people and to our systems…" This global leader explained that information needed to be managed in order for them to assess whether they were complying with the necessary legalities.

Intuition (gut feeling or perception of knowing). "We ended up having to change law firm that we used part way through and actually, I probably should have, when I was down there, interviewed the law firms and been part of that myself, because maybe I would have got a gut feel…" This global leader explained that in retrospect, he should have been more involved in the selection of the law firm because the firm that was selected was not able to deliver what had been requested. He felt that if he had been more involved,

then he may have been able to pick up intuitively, whether they were going to be competent.

Decision Options (consideration of more than one option). "If we had been weak enough to basically agree with the customer and do the change and bring someone in with a non-proven capability. It could have turned out to be a disaster really…" This global leader had reached a decision point; whereby they had to consider the option of putting another person with less experience and knowledge of the project into a key role, or to remain with their original choice for the project.

Organizational Culture or Values. "I think the first thing was to recognize where there is a tension and where there isn't and that was one of the most important things that I had to do very early on, so I was fortunate to work for a global multinational that was based on values." In this part of the scenario, the global leader was explaining that having a set of clearly articulated organizational values allowed him to identify where there was alignment with other stakeholders and where tensions were likely to arise.

Rational Data (facts and figures). "I did all this analysis and put it all together, working out historically, respectively how much money we would have made had we cut this middle man out..." This global leader explained that

he used facts and figures to demonstrate how they could save money. This was used to convince their Director to adopt a change to the supply chain process.

Relationships. "...obviously the biggest potential impact to our business was in our relationships with the local stakeholders including local customers, because the plant does also work for customers who are based in that area and they were affected by what happened…" This global leader explained that the safety incident had created a potential risk of damaging relationships with both local stakeholders and local customers and this was a huge concern to them.

Relevant versus Non Relevant Information (separating these). "…how could I pick the right person to be in charge that would create a team and make sure that we didn't lose any of the people who are quite known in the industry, so that was actually in my mind, was more important to me than which office we were going to ultimately co-locate people in." The global leader explained that selecting the right person to be in charge was relevant and more important, compared with, which office they were going to be located in, which he considered irrelevant.

Risk Management. "...quite frankly, if they took him off the project, then they can take everyone else off the project. It would severely damage our ability to deliver the project safely and on time if he wasn't involved" and "It

was purely around managing our risk and my view was he was central to that." In this scenario, the global leader described that the selection of an appropriately skilled and experienced project manager was paramount to the success of the project. He was managing the risk of the project failing by ensuring the right person was appointed.

All factors in the model appeared in at least 50% of the interviews except for intuition. While the notion of intuition was only mentioned in 25% of the qualitative interviews, thus not meeting the threshold for inclusion, intuition is strongly linked to experience as part of naturalistic decision-making (Klein, 2008). Results however, showed that experience was present in 100% of the interviews, suggesting that intuition based on experience may have also been relevant. Intuition is not necessarily a conscious cognitive process and therefore, the global leaders may have been using it, but not have been aware that they were and therefore, unable to describe it in Study 1 or they may not have wanted to admit it. Therefore, intuition was retained for further evaluation in Study 2.

Through the use of IPA, the researcher not only listened to the content, but also the emotions conveyed during interviews. This latter point gave a real insight into which pieces of information were more important to the interviewee and notably, these were recalled more easily. In particular,

participants placed emotional markers on specific pieces of information that were often at key decision points for the global leaders. These emotional markers were evident to the researcher during the interviews through various indicators; in particular, the tone of the interviewee's voice which revealed their emotional state as they were relaying the information. In one interview, the interviewee's tone of voice indicated major disappointment and in another, the interviewee's tone of voice indicated genuine sadness and dismay. The emotions were interpreted using intonations in their speech, pauses between statements and the general tone of their voices. All of these indicators, expressed their emotional state. Therefore, demonstrably, emotions were a larger part of decision-making than global leaders themselves may have even realized. For example, 'What I personally struggled with was, we were removing them from the only income these guys had, they were in a very hostile environment and you were taking those earnings away from them. That was a personal one, I didn't like doing.' This was coded as an emotional marker.

Apart from confirming that all factors were used by global leaders in Study 1, there were 2 additional factors that emerged from the data; risk management and organizational values. Therefore, these were added to the research model. First, risk management was mentioned in 100% of interviews. Because risk management was so strongly endorsed, it was classified as the

third main category alongside the 2 other main categories; 1) information management and 2) relationship management. An example of this was "… so actually had to weigh up the benefit of us getting a slightly better rate, maybe 1% or 2% cheaper and then potentially having risk and not having availability of staff on the ground when you need them…" Second, organization values were discussed in 50% of the interviews. An example of that was "To a certain extent we were making it up as we went along, but because our company has such strong values which affected our decision making, obviously at our Head Office level which was also embedded at the local level as well, it was easy to make those decisions, to align the decisions between the corporate level and the people on the ground."

Furthermore, respondents did not reference cultural factors in their comments and scenarios. However, they did describe needing to understand differences in operations, values and other factors. For example, "He is more reserved, reflective, and then once he has decided to move forward, he is very direct and consistent" and "we are different people so we have different styles." These quotes describe differences in styles. In another example, "The complexity that adds to my worries or considerations is that this isn't the same in every country, it's going to be different in every country." This describes differences in approaches taken across different countries. Therefore, culture

was changed to difference. The broader category of difference had greater utility as it covered all types of differences that the global leader may experience. It is also believed that global leaders concentrate on macro level issues such as political systems, legal systems, information technology infrastructures, etc. across countries and therefore, differences in relation to dealing with these macro level issues across different countries are considered as very important. In contrast to this, while culture is woven into differences among people, it is less likely to show up to the global leader in their day to day roles as they are focused on macro level issues and dealing with operational complexities pertaining to that. In comparison to this, culture is likely to be considered as a micro level issue and therefore, less important. Whereas differences in operational processes, standards and legal systems for example, are viewed as more important and are significantly more likely to be experienced.

Finally, the terminology for essential versus non-essential information was changed to 'relevant versus irrelevant information', to more closely resemble the language used by interviewees and the scenarios described (see Appendix B – revised research model). An example of this is "There was definitely a lot of information coming in that was not relevant for what I needed to do" and "… including reports of damage to other people's property and

things like that, at a certain stage and also in the broader picture was just not relevant to the primary mission…"

Method

Study 2: Online Survey

The purpose of Study 2 was to further assess the relevance and importance of the factors identified in the face-to-face interviews with a broader and more diverse sample of global leaders. An online quantitative survey aimed at identifying the frequency of usage of specific cognitive factors and their importance was used for these purposes. The online survey was piloted tested with several individuals within companies to assess whether the survey questions were easily understood. Minor modifications were made based on the pilot feedback.

Sample. Global organizations were approached to participate in the study. Each participating organization sent the online survey to approximately 12 global leaders within that organization or individual contacts of the researcher who occupied global leadership roles completed the survey. The rationale for asking for smaller numbers of participants per company was to increase participation by companies who would normally find obtaining larger numbers for completing the survey unpalatable. The researcher aimed to

demonstrate that global leaders could be found at a broad range of grade levels in their respective organizations and not just at the top levels. The approach of focusing on the task they perform, rather than using job titles as selection criteria for participation, ensured that there was a diverse group of global leaders available for this research.

Participants in Study 2 were 50 global leaders from 13 different industry sectors (see Table 5 – Study 2 Sample Demographics). Sixty-two percent were male, 36% were female and 2% were unidentified (no gender given), 86% were White/Caucasian/Anglo/European, the remaining 14% were Asian/Chinese or Japanese (2%), Middle Eastern, including Northern African, Arab, West Asian (2%), Hispanic/Latino (4%), Multiracial (2%), Other - Ukrainian/French (2%) and Other - Indian (2%). The majority of survey participants were aged between 41-50 years old (38%) and had 11-15 years of service with their companies (24%). Most participants job titles were Director/Vice President or Head of Business Unit (32%) and 42% reported they were bicultural. Sixty-eight percent of respondents reported that the cultural diversity in their organizations was between 50 to 100%. The number of job grades above participants ranged from zero to 5 or more.

Procedure. Stage 2 of the study used an online quantitative survey with the aim of 'getting inside the global leader's head' to establish the frequency

with which they use the factors identified in Stage 1 of this study, and also the importance of these factors in their decision-making, by asking survey participants to rank order these factors. The design of the survey was therefore, dependent on the results of Stage 1 qualitative interviews. Questions were developed around the factors identified in Study 1 and a 7-point Likert-type scale was used ranging from never to always. Questions were randomly ordered such that the survey participants were not able to see the categories or themes that were being tested. An exception to the random ordering was allowed however, for the last 3 questions which was testing the factor that the global leader paid most attention to, when making an overall decision i.e. impact on the business and personal relationships, or impact only on personal relationships or impact only on the business. Grouping these 3 questions together allowed the survey participants to compare and contrast these factors before responding. The online survey questions are shown in Appendix D. In addition to the frequency of usage, global leaders were asked to break down into percentage terms how much importance they placed on the factors used in decision-making. Global leaders had the option of using all factors, some or none of the factors listed and could insert their own factors if they wished to do so. Using a combination of randomly ordered questions which the participants may not have known what was being measured, along

with asking them to rank order specific factors, allowed the researcher to establish how the rank ordering of importance differed from frequency ratings.

Results. Means, standard deviations, and the most frequently reported rating for each question are shown in Table 6. Respondents reported most frequently considering risk factors in their global decision-making (i.e., the potential impact on the business and risk to the business). Business factors was the next most frequently considered, followed by rational information (i.e., facts and data), organizational culture and values, the impact of different options, and impact on relationships (risks of damaging these). Respondents reported that emotions and intuition were considered less frequently when making global decisions. This suggests respondents were most likely to endorse a rational information processing approach.

These results are somewhat similar with the rank order, prioritization. Although notably there are some important differences. Results are presented in Table 7. First, when participants reported frequency of use, they rated risk management as the most frequently considered factor. Also evaluating decision options was used relatively frequently, while Information flow was used less frequently. In the rank ordered importance list, business factors and rational information (facts and data) were ranked as most important in making global decisions while risk management and relationships were ranked lower.

Integration of Results from Study 1 and Study 2

The 2 main categories shown in the research model; information management and relationship management, were evident in the data. An example of information management from the interviews was "…OK well that's in Iceland, so what's the impact on us as we are transatlantic, but then as time went on we realized that air space was closing and that meant that actually even aircraft who essentially were transatlantic would have to go over that air space, so there was practically no way of avoiding this air space, which meant that all flights were potentially going to be impacted…" In this example, the global leader described how they had originally assumed that because the incident was in Iceland, it would not affect their customers in the USA. However, as time progressed, and as more information came in, they were notified that the airspace was closing. It therefore became clear that their customers were going to be affected because flights would be grounded. Thus, plans needed to be made for those customers who were stuck in resort. The information was managed in such a way that appropriate plans were executed to allow their customers to depart from resorts. An example of relationship management from the interviews was" …I guess I mitigated that situation or objection by pledging to try and grow the existing business in the areas where we knew they were strong. So we cannot support you on that, but we can

support you on this and I was able to do that by cutting out another couple of smaller operators that we used…" The global leader described how they overcame objections from the supplier to remove business from them, by getting that supplier to agree that the specific area of business that was being withdrawn was not a strength area for them. The global leader then pledged to help direct new business to them, in an area where they were considered to be strong.

Results from Study 1 demonstrated that risk management was present in 100% of the qualitative interviews. An example of this was "It would severely damage our ability to deliver the project safely and on time if he wasn't involved." In Study 2, it was also confirmed that risk management was the most frequently considered factor when making global decisions. Therefore, the global mindset model was revised to include risk management as a primary category (see Figure 2 for the revised global mindset model).

Organization values were present in 50% of the qualitative interviews. An example of this was "…I was of the opinion that it should be a <COMPANY NAME> person, as we wanted our values, our culture to be part of the campaign…" Safety was an important aspect of this. Also in Study 2, it was found that organizational values are frequently considered in relation to

decision-making (*M* = 5.78). Therefore, this factor was also adopted into the revised global mindset model, as a component of rational decision-making.

The relationship mapping exercise showed that while the number of different relationships ranged from 9 to 16 across the 8 interviews, an average of 13.87 relationships were identified across all interviews. It was also noted that the range of relationships between factors across all interviews was extensive, i.e. 78 different relationships across 8 interviews. There was no commonality to any of these relationships across interviews, thus it is likely that the relationship between factors is highly context specific and also driven by the interviewee's recollection or memory of the critical incidents described. The revised model therefore, does not show any direction of relationships between factors for this reason.

Although Study 1 demonstrated that emotions were used or considered by all of the global leaders interviewed, Study 2 results suggested that global leaders report their use of emotions is far less (*M* = 4.38). Respondents may not be consciously aware that they are using this factor during decision-making. This suggests conscious versus unconscious information processing may produce different results or at least, different rank ordering of importance in relation to global leadership decision-making.

Summary of Study 1 and Study 2 Results: Propositions

Proposition 1 stated that global leaders with a global mindset will use both rational and intuitive information processing when making decisions, and was supported. Study 1 showed both rational and intuitive information were used in global decision-making. In study 1, rational information was used in 100% of the interviews. An example of this was "...so actually in an ideal world what you would have liked to have been able to do, was move your customers from the more expensive hotels into the more competitively priced hotels to reduce your cost…" Intuition was used in 25% of the Study 1 interviews. An example of this was "…so I sort of picked up a few bits, going through and that, and as I sort of, got a feel for it…" although experience which was deemed to be closely linked to intuition was reported in 100% of the interviews. Study 2 showed that usage of rational information (facts or data) M = 6.10 and for the usage of intuition, M = 4.82.

P1a. Global leaders will identify relevant factual information which will suggest rational information processing. This was supported. Study 1 showed consideration of factual information in 100% of the interviews. An example was "…I am that kind of person who is not reacting until we have the right amount of data that we need to, because otherwise you would be reacting to everything that is said…" Study 2 showed that the usage of rational information (facts or

data) was *M* = 6.10.

P1b. Global leaders will identify relevant 'cause and effect' information which will suggest rational information processing. This was supported. Study 1 showed consideration of risks in 100% of the interviews whereby the demonstration of a 'cause and effect' methodology was deployed by global leaders. An example was "…OK well that's in Iceland, so what's the impact on us as we are transatlantic, but then as time went on we realized that air space was closing (volcanic ash was the cause) and that meant, actually even aircraft who essentially were transatlantic would have to go over that air space, so there was practically no way of avoiding this air space, which meant that all flights were potentially were going to be impacted (flights were grounded as the effect)." Study 2 showed that the usage of rational information (facts or data) was *M* = 6.10. This study also showed that 'cause and effect' information relative to risk management was: risks to the business (*M* = 6.32), risks to relationships (*M* = 5.72), risks to using certain information (*M* = 5.54).

P1c. Global leaders will consider multiple decision options and the outcomes of these in relation to both business factors and relationships before making any final decisions which will suggest rational information processing. This was supported. Study 1 showed different decision options were considered in 100% of the interviews. An example was "…so they tried to move

into another market and we supported them because we supported them in the other one, but then actually by doing that, we were doing ourselves a disservice in terms of price and what we could buy that new product at, so in that regard, we were supporting them, but actually we were taking a higher price…" Study 2 showed that in relation to consideration of decision-making options was *M* = 5.74. In relation to consideration of business factors and relationships, Study 1 showed both business factors and relationship management were considered in 100% of the interviews. An example for business factors was "… show them that you are going to make more money and have a better chance of converting these bookings if you use the phone line system which is cheaper in the long term, and it will achieve what the company is trying to do which is make more money and stay profitable" and for relationship management, an example was "It just makes it a lot more delicate and it just means I have to think about things a lot more and work out a way that works for everybody." In Study 2, business factors were frequently considered (*M* = 6.28). The potential impact on people/relationships was also considered, although less frequently (*M* = 5.66).

P1d. Global leaders will identify multiple decisions options before arriving at a final decision which will suggest rational information processing. This was supported. Study 1 showed different decision options were

considered in 100% of the interviews. An example was "Are we willing to severe the employment of these individuals, lose our facilities and then go through that trouble of re-entering a country when times are better…" Study 2 showed that respondents consider more than one option when making decisions (*M* = 5.74). In relation to rational information processing, Study 1 showed it was used in 100% of the interviews. An example was "You just have to kind of manage their expectations, so that every time they report something that doesn't mean there will be an automatic change. We need to have the data behind us to say we need to change what we are doing." In Study 2, global leaders reported using rational facts or data frequently (*M* = 6.10).

P1e. Global leaders will identify relevant past experiences which will suggest intuitive processing. This was supported. Study 1 showed that the experiences of self and/or others were considered in 100% of the interviews. An example was "…but in my experience in the previous 6 months was one of building up trust between me and him and I felt he was absolutely the right man for the job." Study 2 showed that respondents considered experience somewhat frequently (*M* = 5.61). In addition to this, 25% of interviews in Study 1 showed the use of intuitive processing and in Study 2, intuition was used sometimes (*M* = 4.82).

P1f. Global leaders will identify emotional markers which will suggest

intuitive processing. This was supported. In study 1, it was shown that emotions were considered in 100% of the interviews. An example was "What I personally struggled with was, we were then removing the only income these guys had. That was a personal one, I didn't like doing that." However, in study 2, the use of emotions in decision-making was one of the least frequent factors (*M* = 4.38). In addition to this, 25% of interviews in Study 1 showed the use of intuitive processing and in Study 2, respondents confirmed they use intuition sometimes (*M* = 4.82).

P1g. Global leaders will assess risk as part of their intuitive and rational information processing. This was supported. In study 1, risk management was considered in 100% of the interviews. An example of this was "… there is a bit about that value and there is a bit about losing that company intelligence. Local intelligence that you have to consider. I have seen many occasions in this company where we have lost our intelligence through having to let our people go." In study 2, risk was identified as a frequent consideration for a number of different factors: risks to the business (*M* = 6.32), risks to relationships (*M* = 5.72), and risks to using certain information (*M* = 5.54). In relation to intuition, 25% of interviews in Study 1 showed the use of intuitive processing. An example of this was: "So I was reflecting on how the decisions were made, knowing what I was looking for and having something to compare it against, but

at the same time, a lot of gut feel…" and in Study 2, global leaders reported using intuition sometimes (*M* = 4.82). With regard to rational information processing, Study 1 showed it was used in 100% of the interviews. An example of this was "…data to me always tells a story, and normally doesn't lie unless you change the data, but normally data doesn't lie and it really shows a true picture of what is going on…" and in Study 2, respondents confirmed they used rational facts or data frequently (*M* = 6.10).

P2. Global leaders with a global mindset will separate essential information from non-essential information before making decisions. This was supported. The essential/non-essential dichotomy was relabeled to relevant vs irrelevant information based on Study 1 interviews. Study 1 demonstrated that respondents separated relevant from irrelevant information quite frequently (87.5% of the interviews). An example of this is: "Some of the information that was coming in fairly early on that I disregarded was around the media and speculative communication…" In Study 2 respondents also reported separating relevant from irrelevant information during decision making (*M* = 5.60).

P3. Global leaders with a global mindset will identify the need and make efforts to maintain relationships with both global and local stakeholders when making decisions. This was supported. Study 1 showed relationship management occurred in 100% of the interviews. An example of this is: "…I had a good

relationship with the client at the operations level and I also had a relationship at a higher level as well…" and in Study 2, respondents considered relationships frequently (*M* = 5.66).

P3a. Global leaders will consider the impact of decisions on global stakeholders before making a final decision. This was supported. In study 1, interviewees were asked to give examples of critical incidents which involved the management of a tension between global and local stakeholders and therefore, this was considered in 100% of the interviews. An example of this was: "People either do or do not have an ability to work across borders like that. Dealing with an issue in another country other than from where they are. People dealing with other nationalities, dealing with authorities, government and dealing with people in a third country…" In study 2, respondents confirmed that they consider the impact of decisions on both global and local stakeholders (*M* = 5.66).

P3b. Global leaders will consider the impact of decisions on local stakeholders before making a final decision. This was supported. In study 1, interviewees were asked to given examples of critical incidents which involved the management of a tension between global and local stakeholders and therefore, this was considered in 100% of the interviews. An example of this was: "Well the first one was, recognizing one of the things that I am very keen

on managing effectively is the multitude of stakeholders that I was going to have in this because ultimately I was possibly in the short term, going to end up with lots of people that were unhappy." In study 2, respondents confirmed that they consider both global and local stakeholders before making a final decision (*M* = 5.66). It was noted that they do not give greater weighting to either global stakeholders or local stakeholders. Both are considered equally important when making final decisions.

P3c. Global leaders will make a linkage between maintaining relationships and future information flow arising from those relationships. This was supported. In study 1, the relationship mapping exercise showed that in 50% of Study 1 interviews that there was a connection between relationships and information flow either one directional (relationships to information flow or information flow to relationships) or a reciprocal relationship. An example of this was: "I got the authorization to go ahead and implement the changes upon which time we had to announce to the company first of all, that we weren't going to be sourcing their product any more" (information flow to relationships). In study 2, respondents reported consideration of relationship management (*M* = 5.66) and information flow (*M* = 5.67).

P3d. Global leaders will consider cultural factors in relation to maintaining relationships. This was supported. Culture was relabeled to

'difference' as a result of Study 1. The relationship mapping exercise showed that in 50% of Study 1 interviews that respondents considered differences among people or ways of doing things when making a decision. An example was "…I suppose it was based on my relationship. I felt comfortable because I had invested in the relationship… I used that 6 months to understand his style and his gaps and we had been very open with one another. He knew my gaps, I knew his gaps. We worked closely together…" In study 2, difference was considered more frequently when related to business processes across different countries (*M* = 5.46) compared with differences in people (*M* = 5.40).

Study 2 showed that all factors in the research model were used (see Table 6). Most survey responses in the online survey had a mean score of 5 or better, meaning that those factors were used frequently (70% of the time). Questions relating to consideration of risk (particularly the impact on the business), relevant business factors, and usage of rational information (facts or data) had higher means (6 and greater), meaning that they were used usually (90% of the time). Questions relating to the consideration of emotions (self or others) and the usage of intuition had a mean below 5, which meant they were used sometimes (50% of the time). In contrast, questions pertaining to making final decisions which considered only the impact to the business had a mean of 3.28 (occasionally) and similarly, making final decisions which considered only

the impact to personal relationships had a mean of 2.18 (rarely). However, global leaders did confirm that they frequently considered both the impact to the business and to personal relationships (*M* = 5.40) (70% of the time). It was noted in Study 1 during an interview, that an interviewee described this specific point; "So it's all about trying to do the best thing for, it's a bit of a balancing act isn't it? You are trying to do the best thing for the business, but also try to retain the relationships at the same time. There has to be balance there." This supports the proposed model of global mindset in relation to how final decisions are made by global leaders.

Discussion

The purpose of this study was to better understand the notion of global mindset in the context of global leaders making complex decisions. A global leader's role is highly complex and it requires them to manage a paradox involving both global and local stakeholders, whereby there are competing interests or agendas from different stakeholder groups and the global leader must find a solution to this to restore equilibrium. This was tested out by asking all interviewees to give examples of critical incidents where this tension existed and was managed. All interviewees were able to provide satisfactory examples of this in their roles. Rhinesmith (2001) reminds us that this global-local paradox is fundamental to the healthy functioning of all global organizations

and therefore, a necessary part of a global leader's role. Therefore, the act of paradox management is central to the global mindset model proposed in this study, in that it acts as a trigger for a set of cognitive processes associated with effective decision-making.

Paradox management has also been referenced as a 'game changer' by the Center for Creative Leadership (Leslie et al., 2015) with regard to organizational performance. It is believed that while working in a global context, the global leader needs to have a mindset which allows them to see both local and global perspectives clearly, and which values both perspectives, while at the same time, seeks to maximize the benefits and minimize the downsides of each. They conclude by asserting that organizations that lose the ability to hold competing interests in mind, are at risk of losing sight of the learning from both perspectives. This also supports Rhinesmith's view that healthy organizations seek to maximize the benefits from differing perspectives and minimize any negative effects.

The global mindset model proposed in this study compliments Rhinesmith's (2001) view in that it acknowledges that paradoxes are not solved, they are only managed. Similarly, the proposed model is also consistent with the Center for Creative Leadership's (Leslie et al., 2015) views, in that the act of paradox management is a critical component of a global leader's role, which

ultimately affects the healthy functioning of global organizations and therefore, paradox management is a component of global mindset. Similarly, the proposed model aligns with Beechler and Javidan's (2007) viewpoint who suggests that global mindset has emerged as the key to competitive success. Global companies face paradoxes or contradictions so must have key decision-makers with dualistic perspectives" (p. 148) and "a new breed of global leaders who can take decisions and actions that facilitate a complex network of internal and external connections with individuals, teams and organization's" (p. 134). The proposed model also mirrors Cohen's global leadership mindset model (2010) whereby global leaders need to ''think and act both globally and locally'' (p. 27) at the same time.

The proposed global mindset model however, contrasts with other authors such as Clapp-Smith and Lester (2014) who argue that global mindset requires switching between global and local stakeholder agendas. The results of this study suggest that global leaders do not switch between different information pertaining to different stakeholder groups. Instead, they hold all information pertaining to the different stakeholder groups in their heads simultaneously. Similarly, Massingham (2013) suggests that individuals can have strong cognitive capabilities and then adopt either a local mindset

(focused on domestic issues) or a global mindset (focused on more international matters), described as separate constructs, with the added suggestion that the local mindset is somewhat inferior to the global mindset. Again, the results of this study suggest the contrary, that global mindset encapsulates both a local and global mindset at the same time, not an either/or scenario as Massingham and others suggest. The grounded theory approach adapted for this study was critical to understanding the paradox management themes that emerged in this study. Where little is known, or agreed upon with regard to a construct, grounded theory can provide helpful insights and create a foundation for future research.

The purpose of this study was to collect qualitative data to examine the cognitive processes involved in this global mindset and the data collated provided evidence that while global leaders manage the paradox between different stakeholder groups, their focus remains on 3 core factors relevant to every situation: the management of information, risk, and relationships. Risk may work to mediate the relationship between information and relationships, in that sharing or using information creates risks, and then these risks also need to be considered in relation to how it might impact or damage relationships. This latter point, means that the act of managing risk appropriately causes a need for relationships to be protected or managed. An example is, that the risk

of damaging a relationship may be considered before information is shared or used.

Results provided some evidence for the full global mindset model in that rational information management might include attending to business factors, assessing multiple decision options, processing out irrelevant information while retaining relevant information, and utilizing organizational values as a guiding framework. Intuitive information processing may include utilizing past experiences of self and others, emotions, and/or a "gut" feeling. Relationship management may involve a consideration of maintaining forged relationships (local, global, internal, external, etc.) and understanding difference among people, values, and practices.

Revised Research Model

Two new factors were added to the global mindset model as a result of the thematic analysis from the 2 studies; risk management and organization values, one factor was relabeled (culture relabeled as difference), and the terminology used in another factor was reframed (essential versus non-essential information was reframed to relevant versus irrelevant information). As part of Study 1, the extensive range of relationships observed between factors (i.e. 78 different relationships across 8 interviews), suggested there was

no commonality to any of these relationships, thus the relationships between factors is likely highly context specific and also driven by the global leader's memory of the critical incidents described. Therefore, context and global leader's memory could be potential moderators for global mindset. However, this would need to be tested in future research.

Industry Sectors and Risk Propensity

Two different industry sectors were used for this study. These industries have a different organizational culture/climate that is driven by its specific sector's core business activities. While it was anticipated that an entrepreneurial/innovative company (travel), might have a preference for more intuitive information processing, compared to a company with a more highly regulated environment (engineering) which might induce a stronger preference for more rational information processing, the results suggested otherwise. In Study 1, the qualitative interviews confirmed that both organizations, regardless of their organizational cultures and their associated risk appetite, were attempting to manage risk appropriately. There was no evidence to suggest that a risk-taking organizational culture was prevalent in any interview. In fact, it appeared the reverse was true, in that risk was being managed in a downwards direction rather than either organization attempting to expose itself to greater risk. For example, a respondent in the engineering company said:

"well no, I don't actually think that's the right thing to do and I don't think we are going to deliver a safe project if we go ahead and we do that" and a respondent in the travel company said: "what I need to do is advise the UK of the risk to the business, what does that risk to our P&L looks like." Additionally, there were no differences in relation to age/experience or gender with regard to the risk management responses for Study 1. Similarly, there were no significant differences in relation to age/experience or gender in relation to the responses for Study 2.

In Study 2 where 13 different industry sectors were captured, some sectors were expected to have a higher propensity for risk taking due to a need for innovation (hospitality/entertainment/recreation, marketing, information technology) and some were expected to have a lower propensity for risk-taking because of a regulated environment (professional services, oil and gas/energy or utilities, pharmaceuticals, construction and financial services/insurance). Tourism, business services, agriculture, forestry and fishing and other were considered as risk neutral or to have a medium level of risk propensity. Again, there appeared to be no particular industry sector that stood out in terms of risk taking. In fact, the reverse was noted. Similar to Study 1, Study 2 results across different industry sectors, demonstrated that if anything, global leaders were attempting to manage risk downwards in all industry sectors.

Respondents frequently considered risks to the business, risks to relationships, and risks to using certain information. Therefore, we cannot conclude that the organization's culture, influences global leader's attempts to reduce risks. This suggests that the job role itself and the demands placed upon global leaders takes priority and requires them to manage risk effectively regardless of the industry sector or of their individual preferences for managing risk. There is an assumption here therefore, that even in higher risk propensity organizational cultures, that global leaders will still seek to lower exposure to risk as it is an important aspect of their performance. Risk assessment and risk management appears to be a critical process in global mindset. This implies that training future global leaders early in their careers to understand and manage risk could be quite prudent.

Risk Management Factor

While risk management does appear in the leadership literature, it was unclear exactly where it would appear in the global mindset model. There is currently limited literature in relation to leadership risk management and no literature available with regard to risk management specifically targeted at global leadership. In particular, the researcher could find no literature on how global leaders manage risk while performing their roles. While risk

management is a regular part of a senior leader's dialogue (Carucci, 2016), it is anticipated that given the complexity of a global leader's role and the dynamic nature of their work environment, that the risk of failure is even higher in global leadership roles and therefore, managing risk is a core activity. Business factors and a rational analysis of the data were rated as the most important factors in decision-making. Risk evaluation emerged as the next highest priority. However, relationship management fell lower in the importance rankings. This may be because relationship management is perceived as a soft skill and therefore, rated as less important compared to other more business/rational factors, which the global leaders may have felt 'should' have taken precedence, or alternatively, it could be a reflection of Western business practices, whereby maintaining relationships could be traded off, if necessary, to produce tangible business results. Therefore, the results could have been influenced by the highly Western dominated sample. It would be prudent to test this ranked order list with different samples, using an Eastern sample for comparison purposes and/or a more diverse range of ethnic groups to identify whether this was a contributing factor to the research results. Alternatively, these results could be because managing relationships has become highly automated and therefore, global leaders are unaware of how frequently and/or important this is, to their interactions.

The literature tells us that global leaders are great system thinkers and can therefore, identify 'cause and effect' readily when managing information (Mendenhall et al., 2012). However, the current study takes this one stage further, to explain that global leaders are not only great system thinkers, they are also exceptional risk managers, because 'cause and effect' or systems thinking is a core component of risk management (Loosemore & Cheung, 2015). These authors indicate that when used in the context of risk management, systems thinking helps us to understand the important property of 'self-organization' (the ability of a system's connections and interdependencies to change, adapt and develop on their own without the influence of external managers).

The same 'cause and effect' thought processes underlie risk management. For example, consider that in one of the incidents described during the qualitative interviews, there was significant organizational change being managed. The global leader in this scenario had identified that these organizational changes (the cause) could impact the loss or retention of customers (the effect) and as a result, they were managing the risk of losing customers and trying to retain them by having multiple customer meetings. Global leaders are therefore, not only skilled system thinkers, but they are exceptional in risk management as well.

Given the level of importance placed on risk management through its frequency of use in the qualitative interviews, plus how it was described in relation to information management and relationship management, risk management may be a mediator of the reciprocal relationship between information management and relationship management and relationship management and information management. However, this theory would need to be tested in future research.

While risk management is an important part of a global leader's role and indeed, leaders more generally, it is not well adopted in the academic literature, especially in relation to global leadership. Given the size and complexity of the role however, the risks of failure are significantly increased, and therefore, future research in relation to how risk management impacts global leadership effectiveness is well advised.

Organization Values Factor

Organization values also emerged in Study 1, especially in relation to guiding ethical behavior and was further tested in Study 2, where it ranked number 6 in terms of importance in decision making, just behind risk management. Given that the topic under examination was global leadership decision-making, and that organization values have many benefits to organizations, including aiding leadership decision-making, as values drive

expected behaviors in the organization and for its leaders (Mendenhall & Osland, 2012), therefore, the emergence of this factor in the data from an applied practitioner perspective is both reasonable and logical. The role of organizational values in global mindset however, also requires future research.

Difference Factor

The topic of difference emerged in the data and thus, culture was relabeled to difference, as culture is a subcategory of difference. The data supported a variety of differences which global leaders have to interpret and manage. Therefore, difference replaced culture. The broader category of difference was considered more appropriate and reflective of the language used by global leaders. Most interviews did not focus on culture, but on differences which affect their business operations, such as the approaches taken across countries, personality, or differences in style of leadership. A broader category of difference therefore, has greater utility as it covers all types of differences that the global leader may experience. It is also believed that these global leaders are concentrating on macro level issues such as political systems, legal systems, information technology infrastructures, etc. across countries as shown by the nature of the incidents described in Study 1 and therefore, differences in relation to dealing with these macro level issues across different countries are considered very important. In contrast to this, and while

culture is woven into differences among people, it is less likely to show up to the global leader in their day to day roles, as their attention is focused on dealing with operational issues driven by these important macro level issues. In comparison to this, culture would be considered a micro level issue as it is very narrow in comparison to some of these macro level priorities. Whereas differences in operational processes, standards and legal systems for example, are viewed as more important and much more likely to be prioritized because of its visibility. Future research on what is meant by differences in the global mindset model and how global leaders manage and evaluate differences is recommended.

The value of having coders who truly understand the dynamic of working in a global environment and who also understand the job role of a global leader, is considered an asset to future global leadership research. Partnering with quality research institutions to combine this understanding of global leadership with the rigor and discipline of research is considered a critical factor in moving this field of research forward.

Relevant vs. Irrelevant Information

An article by Kahneman et al. (2016) describes how leadership decision-making can be, and is, affected by noise and bias. Many errors of judgment are caused by these. Both are viewed as negatively influencing the leader's

decision-making. Biased decision-making is strongly influenced by a focus on irrelevant factors or an insensitivity to relevant ones. This highlights the importance of separating relevant from irrelevant information in order to make quality decisions.

Noise is viewed as a distraction in relation to decision-making, throwing decision-makers off track. Kahneman et al. (2016) suggest formalized rules can help control noise and aid decision making. However, in human decision-making where there is complexity and nuance, reducing bias is notoriously difficult to do. For example, consider emotions as noise. This was the case, in one example from Study 1 where emotions were described as a distraction from rational decision-making. While formalized rules may help assist with the cognitive processing of emotions (e.g. consider whether a person's emotions (crying) will damage a relationship). Following general rules in relation to emotions does not necessarily produce positive outcomes however, nor does it allow the leader to either disregard them or indeed, adopt them on demand, especially if the processing of emotions happens in the unconscious mind. Emotions are markers which the leader may be processing in their subconscious mind. The leader may also be consciously recalling these as other factors (e.g. information flow), in that information was communicated to them verbally by an individual in an emotional state (for example, disappointment) and

therefore, the leader may place more (or less) emphasis on the information because of the emotional state of the individual than had they received this information from someone who was not in a disappointed state. The leader subconsciously processed the disappointed emotions and therefore, placed an emotional marker on the information. This was noted in another example in Study 1 where the employee's distressed state regarding the proposed changes and how these changes would affect them personally was acknowledged by the global leader. It is possible that this global leader remembered the information, but not the emotional marker from the feedback provider which was processed subconsciously at the same time and therefore, they placed more (or less) importance on the information as a result. In this example, emotions could be viewed as noise in relation to decision-making, although not necessarily in a negative sense.

Kahneman et al. (2016) further argue that if decision-making was transferred into algorithms, then noise and bias could be eliminated. However, as we know, decision-making is a complex cognitive process involving many different dimensions and nuances. People are affected by both noise and bias and therefore, automating decision-making for global leaders is not a reasonable proposition. The best outcome however, would be to help global leaders to understand the factors they are using while making decisions,

especially raising unconscious factors into conscious awareness such as the use of emotions and intuition, where this is not evident to the global leader themselves. Awareness of the full range of factors involved in decision making allows an opportunity to review the weighting attached to each and to at least recognize the consideration of these and frequency of its usage. There is also a question to be asked whether the rank ordering of factors in terms of importance differs by the context of the situation. The relationship mapping exercise in Study 1 showed different relationships between factors materialized depending on the context. This could also occur in relation to rank ordering of importance placed on factors. For example, during a restructuring or downsizing program when emotions are running high for employees, does the global leader place more consideration on emotions during this time versus other scenarios they have to address? Or do they place more emphasis on rational information because it helps to manage the emotions of employees by helping the global leader explain the rationale for the decisions that have been taken and use this to help manage the emotions of others? The results from Study 1 and Study 2 suggests that context really matters, when it comes to which factors are more prevalent and indeed which factors relate to one another. An examination of the range of different scenarios described as critical incidents in Study 1 show that the context is affecting both the activation and

usage of factors in relation to the global leaders decision-making. Another example, might be that the global leader places higher emphasis on the factor of experience (both self and others) or decision-making options (consideration of more than one option) in ambiguous situations where they are unsure of the answers (risky situations), relative to situations which are more familiar to them (less risky situations), whereby they may place more emphasis on relationship management or information management in cases where they are more sure of the outcomes and the impact. This is another area where additional research would be fruitful.

In terms of what else we need to know about global mindset, it is which of these factors are processed in conscious awareness and which are processed unconsciously or have become automated. Knowing how these factors are manifested can allow us to at least estimate the true frequency of usage and therefore, can help us understand the true rank ordering of these factors in terms of importance in global leadership decision-making. Additional qualitative research can help bring further clarity to the usage of these conscious and unconscious processes in relation to how they are manifested, the true frequency of their usage and ultimately, provide a more accurate picture of factor rank ordering of importance and the impact these factors play either individually or in combination to enhance decision making.

Cognitive Load for Global Leaders

Global leaders work in a complex and highly ambiguous environment, making it necessary for them to access and process a vast array of information. As part of this, they need to process a great deal of relevant and irrelevant information (Mendenhall & Osland, 2012) and to separate these out. In relation to Klein's research (2008) on naturalistic decision-making, as highlighted earlier, Klein argued that intuition depends on the use of experience to recognize key patterns that indicate the dynamics of the situation. This is a highly automated process, as the patterns encountered in real-life situations are often nuanced and subtle, so people often cannot describe what they actually noticed, or how they judged a situation as typical or atypical. This process of using pattern recognition is also likely used to segregate relevant information from irrelevant information, such that the global leaders themselves cannot even describe what they did or how frequently they are doing so. Given the vast amounts of information the global leader comes in contact with and has to process during their job roles, in order to avoid cognitive load, global leaders must first separate out the relevant information from the irrelevant and then review holistically only the relevant information.

This is particularly pertinent as it was evidenced during Study 1 that

global leaders are not switching back and forth between one global stakeholder group and another local stakeholder group in order to process data. Instead, they appeared to hold both perspectives at once. This is in direct contrast with work by Clapp-Smith and Lester (2014) and others who suggest that global leader must switch between mindsets as appropriate for the situation. Clapp-Smith and Lester (2014) reference the adoption of a local or polycentric mindset, which is defined as someone who may not be able to see the global picture (Bartlett & Ghoshal, 1998; Doz & Prahalad, 1987; Gupta & Govindarajan, 2002; Nadkarni, Herrmann, & Perez, 2011; Nadkarni & Perez, 2007). This ethnocentric or parochial mindset is adopted by global leaders when they believe that the local country business practices are best. This, however, results in them being blind to the nuance differences from other countries (Gupta & Govindarajan, 2002; Perlmutter, 1969). Alternatively, a geocentric, transnational, or global mindset results in the global leader having the ability to see the broader interconnectedness. Authors propose that it is feasible for global leaders to activate the mindset that is most appropriate for the situation as well as switch between global integration and local responsiveness mindsets (Altmann & Gray, 2008; Fiedler et al., 2005; Hamilton et al., 2011). In this regard, global leaders adopt either a local or a global mindset and then switch back and forth depending on the context. This study provides evidence to the

contrary, and suggests that global leaders with a global mindset are able to hold both perspectives at the same time. Global leaders maintain a holistic overview while considering local and global needs at the same time. There is only one mindset and global leaders are in fact, retaining all relevant information in their heads simultaneously and processing information over longer time periods than might have first been imagined. As an interviewee from Study 1 explained:

> ”I actually really enjoy the first month of a new challenge. To be open Agnes, I don’t sleep particularly well, but I am really comfortable with it, because what I am doing is like for the couple of months before I went down to my office, I am trying to get a read on things, trying to understand the bigger picture, try to think, no let’s be absolutely clear in my mind what the objective is here and when I wake up and think of something during the night, then it’s usually something meaningful, that I need to look at. Once I get there, I am really clear.”

This quotation shows that the global leader is constantly processing large volumes of information and over a lengthy time period, in order to seek insights and meaning which allows them to perform effectively. This evaluative information processing process is essential to their decision-making. The global leader is not switching back and forth between pieces of information, they are in fact, looking at things holistically. The ranking differences within the 2 data collection methods for Study 2 and its usage in Study 1 suggest that it is more prevalent that global leaders may themselves assess.

There may also be other factors in the ranked list that this applies to also, such as intuition, which is known to be mostly an unconscious process and which may also be automated. According to Klein's naturalistic decision-making (2008), intuition is linked to experience and while experience is ranked as the third most important factor, intuition is ranked eighth and in the lower half of the rank ordered factors. This again suggests that experience is much more transparent in self and others and therefore, more likely to be consciously processed versus intuition which is not transparent at all, and therefore, unconsciously processed.

While the consideration of all factors shown in the global mindset model is believed to take place during all global leader scenarios, whether it shows up to the global leader and the importance placed on each of these factors is dependent on 2 additional criteria: 1) the global leaders 'conscious' thought processes, and 2) the context of the situation. This means that the global leader can only recall factors that are held in conscious memory and/or have not become automated to the point that they do not recognize it as a process. Therefore, if the factors are being used unconsciously, then the global leader will be unaware of it and unable to report on it. The likelihood is therefore, that greater importance will be placed on conscious factors as they are memorable. However, there may be other factors that are either being used, or being used

more frequently than the global leader realizes because they are not in their conscious awareness. For example, from the rank ordering in Study 2: intuition (ranked order 8 of 12), emotions (ranked order 11 of 12) and separating relevant from irrelevant information (ranked 12 of 12). These lower ranked factors are either less visible or less understood by the global leaders themselves in relation to the role they play in their decision-making. Therefore, while these lower ranked factors were validated as a consideration by global leaders in decision-making, they were rank ordered as much less important in relation to how decisions are made, and this may or may not be true. In frequency ratings, it was interesting to note that separating relevant from irrelevant information was reported as a frequency process (*M = 5.60).* This supports Study 1 results which shows consistent usage. This again suggests that global leaders are not consciously aware of how much they are using this, or it has become an automated process.

While some information can be recalled easily because of the emotions attached to that information (emotional markers), there may be other emotions and information that was processed by the global leader during incidents that they were not consciously aware of and therefore, were unable to recall. Furthermore, several respondents in the interviews (at least 25%) exhibited strong emotions as they were describing the incidents. While this was evident

to the researcher, whether the interviewee was aware of this or not, is unknown. While this emotional processing was transparent, other emotional processing may be subtler and thus, more unconscious and less likely to be recalled. For example, a global leader does not remember the specific emotional responses of people when discussing certain information with them (disappointment as an example), therefore the emotions were being processed subconsciously and leaving subtle emotional markers on the information, such that the global leader found the information to have less credibility or was viewed as inaccurate, although they may not be able to justify why they had concluded that, as the information processing happened in their unconscious mind containing factors that they were not consciously aware of. Without those emotional markers, they may have processed the information differently. This example shows how emotional markers make the information more or less important and in such a way that the global leader is not consciously aware of it. This might explain why emotions of self and others are ranked very low in importance in Study 2. The role of emotions in global mindset is an area in great need of additional research.

Similarly, in Study 1 global leaders reported separating relevant from irrelevant information in 87.5% of the interviews. In Study 2, respondents said they separated relevant from irrelevant information frequently, but it was

ranked at the bottom of the list in terms of factor importance. This difference between frequency of usage and perceived importance suggests that global leaders may not be consciously aware of how often they are doing this, or perhaps it has become automated such that they are not consciously aware that they are doing this and therefore, other conscious processes which are perceived as being used more frequently or factors which the global leaders assess 'should' be more important, are taking precedent and thus, are being ranked higher.

The Study 2 results also contrast in some cases with Study 1 results, suggesting the importance of mixed methods research approaches that incorporate both qualitative and quantitative analysis and notably, a research design which encourages both conscious versus unconscious information processing for global leaders is important. These differences in results may however, also have been due to differences in the sample. For example, differences in self-awareness within the sample population. To explain, Study 1 comprised of high performers/high potentials who may have possessed higher levels of self-awareness relative to a more general sample and thus were able to report the usage of emotions and other certain other factors more often. In contrast to this, Study 2 comprised a more general sample of global leaders and therefore, their self-awareness may have been at a different level.

Interestingly, during this study the researcher became consciously aware of her own cognitive processes as she was writing up the study results, conducting the data analysis and outlining the discussion and conclusion sections, as she was forced to think about and reflect upon what she had done during the interviews and during the coding processes and why. This reflection in relation to what she had done, emphasized that when cognition becomes automated, it becomes incredibly difficult to decompose and analyze the processes involved in decision-making. This was a reminder to the researcher that the global leaders themselves may not have been able to explain what they had done in relation to their decision-making activities during the interviews and why they had done it, because it is an expert behavior and had become automated. Thus, detangling the automated cognitive processes for global leaders is an incredibly difficult task.

To demonstrate this point, the researcher received an email from one survey participant who had completed the online survey and then wrote to thank her for being able to contribute to the research. In their communication they indicated, "I was not consciously aware of some of these processes" thus supporting the view that studying expert's cognitive processes is very difficult and that moving the SME's into conscious awareness is a necessary step in researching this topic and in understanding their underlying cognitive

processes. There may be other unconscious factors being used that have yet to be tapped into. While this study was a first step in relation to understanding these cognitive processes, it is not entirely clear how these processes were manifested and what their full impact is in relation to decision-making. Plus, there may be other factors being considered unconsciously by global leaders. This is an area for future research.

There is no evidence to confirm which of the factors that the global leaders are consciously aware of, while they are processing the information, versus which factors they are processing unconsciously. The feedback from the participant mentioned earlier however, suggests that not all processes are in conscious awareness and thus, our understanding of those factors which sit in global leaders unconscious minds is still an unknown, especially in relation to how these unconscious factors are activated, manifest themselves, and also in relation to how they impact the overall decision making process.

Therefore, other researchers may be studying what are essentially only conscious processes in relation to global mindset, and this may be a barrier with regard to fully understanding the construct, as the study of conscious processes alone will not reveal the true picture of global mindset. As research designs are typically developed based on what can be measured, then it is understandable why this may have been overlooked in the past. This study may have tapped

into unconscious factors and raised our awareness that there are potentially unconscious factors or highly automated factors, which actively contribute to a global mindset. This is clearly an important direction for future research.

Who are Global Leaders?

While global leadership research is somewhat limited, we are not entirely clear why. Some might argue that gaining access to senior leaders for research purposes remains a constant challenge to global leadership research. However, our definition of who qualifies as a global leader could also be harming the field of research. Given the level of restructuring through mergers and acquisitions and right sizing of organizations, jobs in the organization hierarchy have changed and the accountability for certain activities has shifted downwards as a result (Armistead & Meakins, 2007). In effect, there are more global leaders in organizations than research might have previously considered. Focusing only on senior executives for global leadership research is a major barrier to advancing this field. There are other grade levels who perform the role of a global leader and therefore, job titles are irrelevant with regard to research in this area. In Study 1, an individual with the title of Manager was included in the interviews because this person was performing a global leadership role. In Study 2 this was further supported because 36% of survey participants were performing the role of global leader with the job title of

Senior Manager or Manager/Supervisor. This is over a third of the sample, thus challenging the view that global leaders are only senior executives. It was also noted that a proportion of the participants in Study 2 qualified as global leaders and were 4 or 5 levels from the top of the organizational hierarchy (24% of the sample). This demonstrates that global leaders are no longer only found at the highest levels in the organization.

Given that current research focuses on senior executives and these are in limited supply per organization, this also explains why global leadership typically includes smaller sample sizes, relative to other sample populations. If the sample is opened up to those who perform the activities of a global leader as opposed to sampling based on job title, then this should increase the sample population to participate in research. A generic definition of global leader as 'those that have to influence and make decisions across geographical boundaries which impact both global and local stakeholders' is a way of teasing out those who perform global leadership activities and therefore, should be adopted when deciding who to include in global leadership research. Similarly, using coders who fully understand the dynamic of working in a global environment and the role of a global leader, while working in partnership with quality research institutions to provide rigor in the research, can provide

important insights that would otherwise be missed in global leadership research.

Limitations

This study used a modified grounded theory approach, and therefore, theoretical saturation did not occur. While the sample size for Study 1 was not large, it was within the best practice guidelines for CTA using the critical decision method (3-5 persons per organization). Similarly, a larger sample size for Study 2 would have been preferable. However, a strength of the study is the coverage of 13 different industry sectors which supports the generalizability of the results.

Applied Practitioner Benefits

From an applied practitioner standpoint, some of the benefits of this research are an awareness of the core factors involved in global mindset and therefore, to consider how these factors can be used for recruitment and selection, leadership development, and career management purposes for global leaders. Some of these factors can be trained in employees much earlier than they would normally be planned for. This can result in them having acquired the mindset of a successful global leader before they are placed in that role. Risk management is a good example of this. Typically, this is a responsibility associated with senior personnel as the accountability ultimately lies with them.

However, giving professionals tasks, activities, or assignments that expose future global leaders to the need to manage risk much earlier in their careers can assist with developing this mindset. This will require focus from organizations to think about and plan which types of risks they are comfortable exposing more junior staff to, as there is a cost of failure attached to this. Coaching, mentoring and/or work shadowing may be better alternatives, where the organization has a low risk appetite.

In addition to this, the 3 core areas of 1) information management, 2) risk management, and 3) relationship management can also be factored into the competency frameworks of businesses, and/or factored into any high potential/emerging leader's development programs or, alternatively developed through coaching, mentoring and/or work shadowing in employees who currently do not occupy global leadership roles. In relation to development centers typically used to develop future leaders, organizations can design activities which create increased complexity in relation to managing information, risks and relationships in order to prepare these employees for future challenges. This will expose high potentials to the types of experiences that they will typically face in future global leadership roles and thus allow them to expand their thinking, change their perceptions and adopt a different mindset.

Conclusion

Based on the results of Study 1 and Study 2, it appears that global mindset is a set of cognitive processes undertaken by global leaders when making decisions as they manage the paradox of differing global and local stakeholder agendas. In relation to managing this paradox, and making decisions, global leaders consistently use 3 core cognitive processes: 1) information management, 2) risk management, and 3) relationship management. As they work through the decisions that need to be made, they activate, based on the context of the situation, a number of other factors which relate to these 3 core processes. These sub processes are: business factors, relevant vs irrelevant information, decision-making options and organizational values (all rational processes), as well as experience and emotions (both are intuitive processes) and information flow and difference (relationship processes). The relationships between these factors and the frequency of their usage are entirely dependent on the situation or context or the global leader's conscious memory of events. Many of these cognitive processes may be automated or processed unconsciously which makes it very difficult to assess both the frequency of usage and importance relative to overall decision-making.

In relation to making a final decision, the global leader seeks an outcome which considers both the needs of the business and the retention of personal

relationships which have been developed with both global and local stakeholders. Global leaders in the studies specifically verified that neither business factors nor personal relationships alone were considered as important in relation to making a final decision. However, managing the balance of satisfying business needs and relationship needs were considered very important and the ultimate goal for global leaders.

The overall aim of this research was to change the direction of research with regard to global mindset. This study demonstrated that global mindset is a cognitive process triggered by the need to manage the paradox between multiple global and local stakeholders and that this paradox is a necessary part of a global leader's role. This paradox management then activates the consideration of a number of different factors in relation to decision-making. The relationships between factors and the importance placed on each is entirely driven by the context. However ultimately, the global leader aims to make final decisions which considers both the impact on the business and the impact on personal relationships in order to retain a balance between business needs and retaining relationships.

References

Adler, J. (2002). Belief's own ethics. MIT Press. Cambridge, MA.

Agor, W. H. (1986). The logic of intuition: How top executives make important decisions. *Organizational Dynamics*, *14*(3), 5-18.

Agor, W. H. (1984). Using intuition to manage organizations in the future. *Business Horizons*, *27*(4), 49-54.

Akinci, C. & Sadler-Smith, E. (2012). Intuition in management research: A historical review. *International Journal of Management Reviews, 14(1), 104–122.*

Albrechtsen, J. S., Meissner, C. A., & Susa, K. J. (2009). Can intuition improve deception detection performance?. *Journal of Experimental Social Psychology*, *45*(4), 1052-1055.

Ambady, N. (2010). The Perils of Pondering: Intuition and Thin Slice Judgments. *Psychological Inquiry*, 21(4), 271-278.

Ames, D. R., Kammrath, L. K., Suppes, A., & Bolger, N. (2010). Not so fast: The (not-quite-complete) dissociation between accuracy and confidence in thin-slice impressions. *Personality and Social Psychology Bulletin, 36*(2), 264-277. doi:10.1177/0146167209354519

Armistead, C., & Meakins, M. (2007). Managing knowledge in times of organisational change and restructuring. *Knowledge and Process Management*, *14*(1), 15-25.

Arora, A., Jaju, A., Kefalas, A. G., & Perenich, T. (2004). An exploratory analysis of global managerial mindsets: a case of US textile and apparel industry. *Journal of International Management*, *10*(3), 393-411.

Bartlett, C. A. & Ghoshal, S (1989). Managing across borders: The transnational solution. *Harvard Business School Press.* Boston, MA.

Bartlett, C. A. & Ghoshal, S. (1992, reprinted in 2003). What is a global manager? *Harvard Business Review*. Retrieved from: https://hbr.org/2003/08/what-is-a-global-manager.

Bartunek, J. M., Gordon, J. R., & Weathersby, R. P. (1983). Developing "complicated" understanding in administrators. *Academy of Management Review*, *8*(2), 273-284.

Beach, L. R., & Mitchell, T. R. (1978). A contingency model for the selection of decision strategies. *Academy of management review*, *3*(3), 439-449.

Bechara, A., Damasio, H., & Damasio, A. R. (2000). Emotion, decision making and the orbitofrontal cortex. *Cerebral cortex*, *10*(3), 295-307.

Bechara, A., Damasio, H., Tranel, D., & Anderson, S. W. (1998). Dissociation of working memory from decision making within the human prefrontal cortex. *The journal of neuroscience*, *18*(1), 428-437.

Bechara, A., Damasio, H., Tranel, D., & Damasio, A. R. (1997). Deciding advantageously before knowing the advantageous strategy. *Science*, *275*(5304), 1293-1295.

Beechler, S., & Javidan, M. (2007). Leading with a global mindset. *Advances in International Management*, *19*, 131-169.

Begley, T. M., & Boyd, D. P. (2003). The need for a corporate global mind-set. *MIT Sloan management review*, *44*(2), 25.

Behling, O., & Eckel, N. L. (1991). Making sense out of intuition. *The Executive*, *5*(1), 46-54.

Bernard, H. R., & Ryan, G. W. (2009). *Analyzing qualitative data: Systematic approaches*. Sage publications. NY.

Bhagat, R. S., Triandis, H. C., Baliga, B. R., Billing, T. K., & Davis, C. A. (2007). On becoming a global manager: A closer look at the opportunities and constraints in the 21st century. *Advances in International Management*, *19*, 191-213.

Bird, A., Mendenhall, M., Stevens, M. J., & Oddou, G. (2010). Defining the content domain of intercultural competence for global leaders. *Journal of Managerial Psychology*, *25*(8), 810-828.

Black, J. S., Morrison, A. J., & Gregersen, H. B. (1999). *Global explorers: The next generation of leaders*. Psychology Press. London.

Bos, M. W., Dijksterhuis, A., & Van Baaren, R. B. (2008). On the goal-dependency of unconscious thought. *Journal of Experimental Social Psychology*, *44*(4), 1114-1120.

Boyacigiller, N., Beechler, S., Taylor, S., Levy, O., Lane, H. W., Maznevski, M. L., & McNett, J. (2004). The crucial yet elusive global mindset. *The Blackwell handbook of global management: A guide to managing complexity*, 81-93.

Brake, T. (1997). *The global leader: Critical factors for creating the world class organization*. Irwin Professional. Illinois.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77-101.

Brockmann, E. N., & Anthony, W. P. (1998). The influence of tacit knowledge and collective mind on strategic planning. *Journal of Managerial issues*, 204-222.

Bruner, J. S., & Austin, G. A. (1986). *A study of thinking*. Transaction Publishers. New Jersey.

Buchtel, E. E., & Norenzayan, A. (2008). Which should you use, intuition or logic? Cultural differences in injunctive norms about reasoning. *Asian Journal of Social Psychology*, *11*(4), 264-273.

Burke, L. A., & Miller, M. K. (1999). Taking the mystery out of intuitive decision making. *The Academy of Management Executive*, *13*(4), 91-99.

Caligiuri, P. (2006). Developing global leaders. *Human Resource Management Review*, *16*(2), 219-228.

Caproni, P. J. (1992). Multinational mindsets: sensemaking capabilities as strategic resources in multinational firms.

Carucci, R. (2016). A 10-year-study-reveals-what-great-executives-know-and-do. *Harvard Business Review.* Retrieved from https://hbr.org/2016/01/a-10-year-study-reveals-what-great-executives-know-and-do.

Bryant, A., & Charmaz, K. (Eds.). (2007). *The Sage handbook of grounded theory*. Sage. NY.

Chang, C. K., & McDaniel, E. D. (1995). Information search strategies in loosely structured settings. *Journal of Educational Computing Research*, *12*(1), 95-107.

Chipman, S. F., Schraagen, J. M., & Shalin, V. L. (2000). Introduction to cognitive task analysis. *Cognitive task analysis*, 3-23.

Clapp-Smith, R., & Lester, G. V. (2014). Defining the "mindset" in global mindset: Modeling the dualities of global leadership. *Advances in Global Leadership*, *8*, 205-228.

Clapp-Smith, R., Luthans, F., & Avolio, B. J. (2007). The role of psychological capital in global mindset development. *The Global Mindset: Advances in International Management*, *19*, 105-130.

Cohen, S. L. (2010). Acquiring a global leadership mindset: The new competitive advantage in the marketplace. *Development and Learning in Organizations,* 24(4), 27–29.

Crandall, B., Klein, G. A., & Hoffman, R. R. (2006). *Working minds: A practitioner's guide to cognitive task analysis*. Mit Press. Cambridge, MA.

Damasio, A. R. (2001). Emotion and the human brain. *Annals of the New York Academy of Sciences*, *935*(1), 101-106.

Dane, E., Rockmann, K. W., & Pratt, M. G. (2012). When should I trust my gut? Linking domain expertise to intuitive decision-making effectiveness. *Organizational Behavior and Human Decision Processes*, *119*(2), 187-194.

Dawes, R. M. (1998). Behavioral decision making and judgment. *The handbook of social psychology,* 1-2(4), 497-548.

Dijksterhuis, A. (2004). Think different: the merits of unconscious thought in preference development and decision making. *Journal of Personality and Social Psychology*, *87*(5), 586.

Dijksterhuis, A., & Meurs, T. (2006). Where creativity resides: The generative power of unconscious thought. *Consciousness and cognition*, *15*(1), 135-146.

Dijksterhuis, A., & Nordgren, L. F. (2006). A theory of unconscious thought. *Perspectives on Psychological Science*, *1*(2), 95-109.

Dijksterhuis, A., & van Olden, Z. (2006). On the benefits of thinking unconsciously: Unconscious thought can increase post-choice satisfaction. *Journal of Experimental Social Psychology*, *42*(5), 627-631.

Dohmen, T., Falk, A., Huffman, D., & Sunde, U. (2010). Are risk aversion and impatience related to cognitive ability? *The American Economic Review*, *100*(3), 1238-1260.

Dollinger, M. J. (1984). Environmental boundary spanning and information processing effects on organizational performance. *Academy of Management Journal*, *27*(2), 351-368.

Dror, I. E., Katona, M., & Mungur, K. (1998). Age differences in decision making: To take a risk or not?. *Gerontology*, *44*(2), 67-71.

Duggan, W. (2007). Strategic intuition: Creative spark in human development. New York: Columbia University.

Eisenhardt, K. M. (1989). Making fast strategic decisions in high-velocity environments. *Academy of Management journal*, *32*(3), 543-576.

Estienne, M. (1997). The art of cross-cultural management: an alternative approach to training and development. *Journal of European Industrial Training*, *21*(1), 14-18.

Felício, J. A., Caldeirinha, V. R., & Rodrigues, R. (2012). Global mindset and the internationalization of small firms: The importance of the characteristics of entrepreneurs. *International Entrepreneurship and Management Journal*, *8*(4), 467-485.

Finucane, M. L., Mertz, C. K., Slovic, P., & Schmidt, E. S. (2005). Task complexity and older adults' decision-making competence. *Psychology and aging*, *20*(1), 71.

Fondas, N. (1997). Feminization unveiled: Management qualities in contemporary writings. *The Academy of Management Review, 22*(1), 257-282. doi:10.5465/AMR.1997.9707180266.

Friedman, T. (1999). The Lexus and the olive tree: Understanding globalisation. *New York: Farrar, Straus and Giroux*.

Gardner, W., Scherer, D., & Tester, M. (1989). Asserting scientific authority: Cognitive development and adolescent legal rights. *American Psychologist*, *44*(6), 895.

Gaudine, A., & Thorne, L. (2001). Emotion and ethical decision-making in organizations. *Journal of Business Ethics*, *31*(2), 175-187.

Geertz, C. (1973). *The interpretation of cultures: Selected essays*, 5019. Basic books. New York.

Gigerenzer, G. (2007). *Gut feelings: The intelligence of the unconscious*. Penguin. London.

Gigerenzer, G. (2008). Why heuristics work. *Perspectives on psychological science*, *3*(1), 20-29.

Gigerenzer, G., & Brighton, H. (2009). Homo heuristicus: Why biased minds make better inferences. *Topics in Cognitive Science*, *1*(1), 107-143.

Gill, S., Stockard, J., Johnson, M., & Williams, S. (1987). Measuring gender differences: The expressive dimension and critique of androgyny scales. *Sex Roles*, *17*(7-8), 375-400.

Giunipero, L., Dawley, D., & Anthony, W. P. (1999). The impact of tacit knowledge on purchasing decisions. *Journal of supply chain Management*, *35*(4), 42-49.

Gonzalez, C. (2005). Task workload and cognitive abilities in dynamic decision making. *Human Factors: The Journal of the Human Factors and Ergonomics Society*, *47*(1), 92-101.

Gore, J., Flin, R., Stanton, N., & Wong, B. L. (2015). Applications for naturalistic decision-making. *Journal of Occupational and Organizational Psychology*, *88*(2), 223-230.

Gore, J., & Sadler-Smith, E. (2011). Unpacking intuition: A process and outcome framework. *Review of General Psychology*, *15*(4), 304-316.

Gundling, E., Caldwell, C., & Cvitkovich, K. (2015). *Leading Across New Borders: How to Succeed as the Center Shifts*. John Wiley & Sons. New Jersey.

Gundling, E., Hogan, T., & Cvitkovich, K. (2011). *What is global leadership? 10 key behaviors that define great global leaders*. Nicholas Brealey Publishing. Boston.

Gupta & Govindarajan, 2002. Cultivating a Global Mindset. *Academy of Management Executive, 16*(1), p116-126.

Hammond, K. R., Hamm, R. M., Grassia, J., & Pearson, T. (1987). Direct comparison of the efficacy of intuitive and analytical cognition in expert judgment. *IEEE transactions on Systems, Man, and Cybernetics*, *17*(5), 753-770.

Hampden, T. C., & Turner, C. (1994). Corporate Culture. *London: Piatkus Publishers*.

Harteis, C., Koch, T., & Morgenthaler, B. (2008). How intuition contributes to high performance: An educational perspective. *US-China Education Review. 5*(1), 68-80.

Hastie, R. (2001). Problems for judgment and decision making. *Annual review of psychology*, *52*(1), 653-683.

Hatala, R., & Case, S. M. (2000). Examining the influence of gender on medical students' decision making. *Journal of women's health & gender-based medicine*, *9*(6), 617-623.

Hawkins, K., & Power, C. B. (1999). Gender differences in questions asked during small decision-making group discussions. *Small Group Research*, *30*(2), 235-256.

Hayward, T., & Preston, J. (1999). Chaos theory, economics and information: the implications for strategic decision-making. *Journal of Information Science*, *25*(3), 173-182.

Hensman, A., & Sadler-Smith, E. (2011). Intuitive decision making in banking and finance. *European Management Journal*, *29*(1), 51-66.

Hitt, M. A., Javidan, M., & Steers, R. M. (2007). The global mindset: An introduction. *Advances in international management*, *19*, 1-10.

Hodgkinson, G. P., & Sadler-Smith, E. (2003). Complex or unitary? A critique and empirical re-assessment of the Allinson-Hayes Cognitive Style Index. *Journal of Occupational and Organizational Psychology*, *76*(2), 243-268.

Hodgkinson, G. P., Sadler-Smith, E., Burke, L. A., Claxton, G., & Sparrow, P. R. (2009). Intuition in organizations: Implications for strategic management. *Long Range Planning*, *42*(3), 277-297.

Hoffman, R. R., Shadbolt, N. R., Burton, A. M., & Klein, G. (1995). Eliciting knowledge from experts: A methodological analysis. *Organizational Behavior and Human Decision Processes*, *62*(2), 129-158.

Hofmann, W., & Wilson, T. D. (2010). Consciousness, introspection, and the adaptive unconscious. *Handbook of implicit social cognition: Measurement, theory, and applications*, 197-215.

Hofstede, G. (1980). Culture and organizations. *International Studies of Management and Organization*, *10*(4), 15-41.

Hofstede, G., Hofstede, G. J., & Minkov, M. (1991). *Cultures and organizations: Software of the mind* (2). London: McGraw-Hill.

Hogarth, R. M. (1987). *Judgement and choice: The psychology of decision*.

Hutchison, A. J., Johnston, L., & Breckon, J. (2011). Grounded theory-based research within exercise psychology: A critical review. *Qualitative Research in Psychology*, *8*(3), 247-272.

Inbar, Y., Cone, J., & Gilovich, T. (2010). People's intuitions about intuitive insight and intuitive choice. *Journal of personality and social psychology*, *99*(2), 232.

Jeannet, J. P. (2000) Managing with a Global Mindset. Financial Times/Prentice Hall: London

Javidan, M., Steers, R. M., & Hitt, M. A. (2007). Putting it all together: So what is a global mindset and why is it important. *Advances in International Management*, *19*, 215-226.

Jobe, J. B. (2003). Cognitive psychology and self-reports: Models and methods. *Quality of Life Research*, *12*(3), 219-227.

Kaempf, G. L., Klein, G., Thordsen, M. L., & Wolf, S. (1996). Decision making in complex naval command-and-control environments. *Human Factors: The Journal of the Human Factors and Ergonomics Society*, *38*(2), 220-231.

Kahneman, D., & Klein, G. (2009). Conditions for intuitive expertise: a failure to disagree. *American Psychologist*, *64*(6), 515.

Kahneman, D., Rosenfield, A. M., Gandhi, L. & Blaser, T. (2016). Noise: How to overcome the high, hidden cost of inconsistent decision making. *Harvard Business Review.* Retrieved from https://hbr.org/2016/10/noise.

Karlins, M., & Lamm, H. (1967). Information search as a function of conceptual structure in a complex problem-solving task. *Journal of personality and social psychology*, *5*(4), 456.

Kefalas, A. G. (1998). Think globally, act locally. *Thunderbird International Business Review*, *40*(6), 547-562.

Khatri, N., & Ng, H. A. (2000). The role of intuition in strategic decision making. *Human relations*, *53*(1), 57-86.

Klein, G. (2015). A naturalistic decision making perspective on studying intuitive decision making. *Journal of Applied Research in Memory and Cognition*, *4*(3), 164-168.

Klein, G. (2008). Naturalistic decision making. *Human Factors: The Journal of the Human Factors and Ergonomics Society, 50*(3), 456-460.

Klein, G. (2015). Reflections on applications of naturalistic decision making. *Journal of Occupational and Organizational Psychology*, *88*(2), 382-386.

Klein, G. (2000, July). Using cognitive task analysis to build a cognitive model. In *Proceedings of the Human Factors and Ergonomics Society Annual Meeting*, 44(6), 596-599. Sage Publications. New York.

Klein, G., & Militello, L. (2001). Some guidelines for conducting a cognitive task analysis. *Advances in human performance and cognitive engineering research*, *1*, 163-200.

Kleinmuntz, B. (1990). Why we still use our heads instead of formulas: Toward an integrative approach. *Psychological Bulletin*, *107*(3), 296.

Kluckhohn, C. (1954). Southwestern studies of culture and personality. *American Anthropologist*, *56*(4), 685-697.

Kriger, M. P., & Barnes, L. B. (1992). Organizational Decision-Making as Hierarchical Levels of Drama. *Journal of Management Studies*, *29*(4), 439-457.

Lane, H. W., Maznevski, M. L., & Mendenhall, M. (2004). Globalization: Hercules meets Buddha. *The Blackwell handbook of global management: A guide to managing complexity*, 3-25.

Lee, J. (2012). Conducting cognitive interviews in cross-national settings. *Assessment*, 21, 227-240.

Lee, S. W. (2013). Adapting cognitive task analysis to explore young children's thinking competence. *Journal of Research in Childhood Education*, *27*(2), 208-223.

Lepsinger, R., Mullen, T. P., Stumpf, S. A., & Wall, S. J. (1989). Large scale management simulations: A training technology for assessing and developing strategic management skills. *Advances in management development*.

Khatri, N., & Ng, H. A. (2000). The role of intuition in strategic decision making. *Human Relations*, *53*(1), 57-86.

Leslie et al. (2015). *Managing Paradox. Blending East and West Philosophies to Unlock Its Advantages and Opportunities.* Greensboro, NC: Center for Creative Leadership.

Levy, O., Taylor, S., Boyacigiller, N. A., & Beechler, S. (2007). Global mindset: A review and proposed extensions. *Advances in International Management: The Global Mindset*, 11-47.

Lipshitz, R., Klein, G., Orasanu, J., & Salas, E. (2001). Taking stock of naturalistic decision making. *Journal of behavioral Decision Making*, *14*(5), 331-352.

Lipshitz, R., & Strauss, O. (1997). Coping with uncertainty: A naturalistic decision-making analysis. *Organizational behavior and human decision processes*, *69*(2), 149-163.

Sanz de Acedo Lizarraga, M. L., Sanz de Acedo Baquedano, M. T., Soria Oliver, M., and Closas, A. (2009). Development and validation of a decision-making questionnaire. *British Journal of Guidance & Counselling*, *37*(3), 357-373.

Loosemore, M. & Cheung, E. (2015). Implementing systems thinking to manage risk in public private partnership projects. *International Journal of Project Management, 33*(6*),* 1325–1334.

Luhmann, N. (1997). Globalization or world society: how to conceive of modern society? *International review of sociology*, *7*(1), 67-79.

McCall, M. W., & Hollenbeck, G. P. (2002). *Developing global executives: The lessons of international experience*. Harvard Business Press. Boston.

McCall, M. W., & Kaplan, R. E. (1985). *Whatever it takes: Decision makers at work*. Prentice Hall. New Jersey.

McMackin, J., & Slovic, P. (2000). When does explicit justification impair decision making?. *Applied Cognitive Psychology*.

Massingham, P. (2013). Cognitive complexity in global mindsets. *International Journal of Management*, *30*(1), 232-248.

Mather, M., Knight, M., & McCaffrey, M. (2005). The allure of the alignable: younger and older adults' false memories of choice features. *Journal of Experimental Psychology: General*, *134*(1), 38.

Maznevski, M. L., & Lane, H. W. (2004). Shaping the global mindset: Designing educational experiences for effective global thinking and action. *Crossing cultures: Insights from master teachers*, 171-184.

Mendenhall, M. E., & Osland, J. (2012). *Global leadership: Research, practice, and development*. Routledge. London.

Mendenhall, M. E., Osland, J., Bird, A., Oddou, G. R., Maznevski, M. L., Stevens, M., Stahl, G. K. (2013). *Global Leadership 2e: Research, Practice, and Development*. Rouledge. London.

Mendenhall, M. E., Reiche, B. S., Bird, A., & Osland, J. S. (2012). Defining the "global" in global leadership. *Journal of World Business*, *47*(4), 493-503.

Merron, K., Fisher, D., & Torbert, W. R. (1987). Meaning making and management action. *Group & Organization Management*, *12*(3), 274-286.

Militello, L. G., & Hutton, R. J. (1998). Applied cognitive task analysis (ACTA): a practitioner's toolkit for understanding cognitive task demands. *Ergonomics*, *41*(11), 1618-1641.

Militello, L. G., & Hoffman, R. R. (2008, September). The forgotten history of cognitive task analysis. In *Proceedings of the Human Factors and Ergonomics Society Annual Meeting*, 52(4), 383-387. Sage Publications. London.

Miller, J. E., Patterson, E. S., & Woods, D. D. (2006). Elicitation by critiquing as a cognitive task analysis methodology. *Cognition, Technology & Work*, *8*(2), 90-102.

Miocevic, D., & Crnjak-Karanovic, B. (2012). Global mindset-a cognitive driver of small and medium-sized enterprise internationalization: The case of Croatian exporters. *EuroMed Journal of Business*, *7*(2), 142-160.

Mobley, W. & McCall, M. W. (2001). *Advances in Global Leadership*. Emerald Group Publishing.

Mobley, W., Li, M. & Wang, Y. (2012). *Advances in Global Leadership.* Emerald Group Publishing.

Montibeller, G., & Winterfeldt, D. (2015). Cognitive and motivational biases in decision and risk analysis. *Risk Analysis*, *35*(7), 1230-1251.

Moshman, D. (1993). Adolescent reasoning and adolescent rights. *Human Development*, *36*(1), 27-40.

Murtha, T. P., Lenway, S. A., & Bagozzi, R. P. (1998). Global mind-sets and cognitive shift in a complex multinational corporation. *Strategic Management Journal*, *19*(2), 97-114.

Nadkarni, S., & Perez, P. D. (2007). Prior conditions and early international commitment: The mediating role of domestic mindset. *Journal of International Business Studies*, *38*(1), 160-176.

Nordgren, L. F., Bos, M. W., & Dijksterhuis, A. (2011). The best of both worlds: Integrating conscious and unconscious thought best solves complex decisions. *Journal of Experimental Social Psychology*, *47*(2), 509-511.

Nummela, N., Saarenketo, S., & Puumalainen, K. (2004). A global mindset—a prerequisite for successful internationalization?. *Canadian Journal of Administrative Sciences/Revue Canadienne des Sciences de l'Administration*, *21*(1), 51-64.

Oluwabusuyi, I. (2010). The use of intuition across cultures. *African Journal of Business Management*, *4*(17), 3725.

Osland, J. S., & Bird, A. (2005). Global Leaders as Experts. In *Advances in Global Leadership*, 123–142.

Osland, J. S., Bird, A., & Oddou, G. (2012). The context of expert global leadership. *Advances in Global Leadership*, *7*, 107-124.

Parikh, J., Neubauer, F. F., & Lank, A. G. (1994). *Intuition: The new frontier of management*. Blackwell. MA.

Perlmutter, H. V. (1969). The tortuous evolution of the multinational corporation. *Columbia Journal of world business*, *4*(1), 9-18.

Polanyi, M. (1966). The logic of tacit inference. *Philosophy*, *41*(155), 1-18.

Pucik, V. (2005;2006;). Reframing global mindset: From thinking to acting. (pp. 83-100) Emerald Group Publishing Limited. doi:10.1016/S1535-1203(06)04007-X.

Payne, J. W., Samper, A., Bettman, J. R., & Luce, M. F. (2008). Boundary conditions on unconscious thought in complex decision making. *Psychological Science*, *19*(11), 1118-1123.

Rassin, E., & Muris, P. (2005). Indecisiveness and the interpretation of ambiguous situations. *Personality and Individual Differences*, *39*(7), 1285-1291.

Rhinesmith, S. H. (1992). Global mindsets for global managers. *Training & Development*, *46*(10), 63-69.

Rhinesmith, S. H. (2001). How can you manage global paradox?. *Journal of Corporate Accounting & Finance*, *12*(6), 3-9.

Sadler-Smith, E. (2004). Cognitive style and the management of small and medium-sized enterprises. *Organization Studies*, *25*(2), 155-181.

Salmon, P. M., Walker, G. H., & Stanton, N. A. (2015). Broken components versus broken systems: why it is systems not people that lose situation awareness. *Cognition, Technology & Work*, *17*(2), 179-183.

Sayegh, L., Anthony, W. P., & Perrewe, P. L. (2004). Managerial decision-making under crisis: The role of emotion in an intuitive decision process. *Human Resource Management Review*, *14*(2), 179-199.

Schmeck, A., Opfermann, M., van Gog, T., Paas, F., & Leutner, D. (2015). Measuring cognitive load with subjective rating scales during problem solving: differences between immediate and delayed ratings. *Instructional Science*, *43*(1), 93-114.

Schneider, S. C., & Barsoux, J. L. (2003). *Managing across cultures*. Pearson Education.

Shamosh, N. A., & Gray, J. R. (2008). Delay discounting and intelligence: A meta-analysis. *Intelligence*, *36*(4), 289-305.

Shapiro, S., & Spence, M. T. (1997). Managerial intuition: A conceptual and operational framework. *Business horizons*, *40*(1), 63-68.

Sieber, J. E., and J.T. Lanzetta (1966). Some Determinants of Individual Differences in Predicting Information-Processing Behavior. *Journal of Personality and Social Psychology*, 4, 561-71.

Simon, H. A. (1987). Making management decisions: The role of intuition and emotion. *The Academy of Management Executive*, 57-64.

Simon, H. A. (1967). Motivational and emotional controls of cognition. *Psychological review*, *74*(1), 29.

Sinclair, M., & Ashkanasy, N. M. (2005). Intuition myth or a decision-making tool?. *Management Learning*, *36*(3), 353-370.

Steers, M. R., & Nardon, L. (2006). Managing in the Global Economy. New York, ME Sharpe.

Struefert, T, S., Struefert, S. C., & Castore, C. H. (1968). leadership in negotiations and the complexity of conceptual structure. *Journal of Applied Psychology, 52*(3), 218-223. doi:10.1037/h0025852.

Streufert, S., & Swezey, R. W. (1986). *Complexity, managers, and organizations*. Academic Press. Cambridge, MA.

Strick, M., Dijksterhuis, A., Bos, M. W., Sjoerdsma, A., Van Baaren, R. B., & Nordgren, L. F. (2011). A meta-analysis on unconscious thought effects. *Social Cognition*, *29*(6), 738-762.

Trevino, L. K. (1986). Ethical decision making in organizations: A person-situation interactionist model. *Academy of management Review*, *11*(3), 601-617.

Trompenaars, F., & Hampden-Turner, C. (1998). Riding the waves of culture. *New York: McGraw Hill*.

Trompenaars, F., & Woolliams, P. (2004). *Business across cultures*. John Wiley & Sons. New Jersey.

Wally, S., & Baum, J. R. (1994). Personal and structural determinants of the pace of strategic decision making. *Academy of Management Journal*, *37*(4), 932-956.

Walsh, J. P. (1995). Managerial and organizational cognition: Notes from a trip down memory lane. *Organization science*, *6*(3), 280-321.

Wei, J., & Salvendy, G. (2004). The cognitive task analysis methods for job and task design: Review and reappraisal. *Behaviour and Information Technology*, *23*(4), 273-299.

Weick, K. E. (1995). *Sensemaking in organizations*, 3, Sage. London.

Woiceshyn, J. (2009). Lessons from "good minds": How CEOs use intuition, analysis and guiding principles to make strategic decisions. *Long Range Planning*, *42*(3), 298-319.

Wood, W. L. (1990). *Practical time-stepping schemes*. Oxford University Press, USA.

Zajonc, R. B. (1980). Feeling and thinking: Preferences need no inferences. *American psychologist*, *35*(2), 151.

Zsambok, C. E., & Klein, G. (2014). *Naturalistic decision making*. Psychology Press. London.

Wozniak, A. (2006). Managerial intuition across cultures: beyond a "West-East dichotomy." *Education and Training*, *48*(2/3), 84-96.

Zhang, P., & Soergel, D. (2014). Towards a comprehensive model of the cognitive process and mechanisms of individual sensemaking. *Journal of the Association for Information Science and Technology*, *65*(9), 1733-1756.

Appendix A

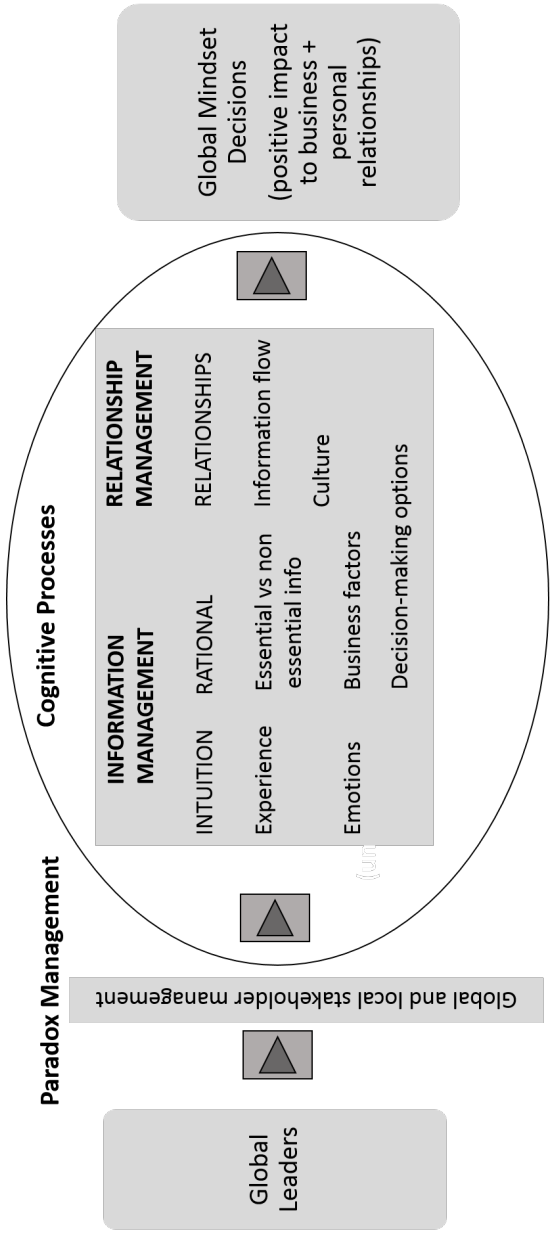

Figure 1. Global Mindset Model—Proposed.

Appendix B

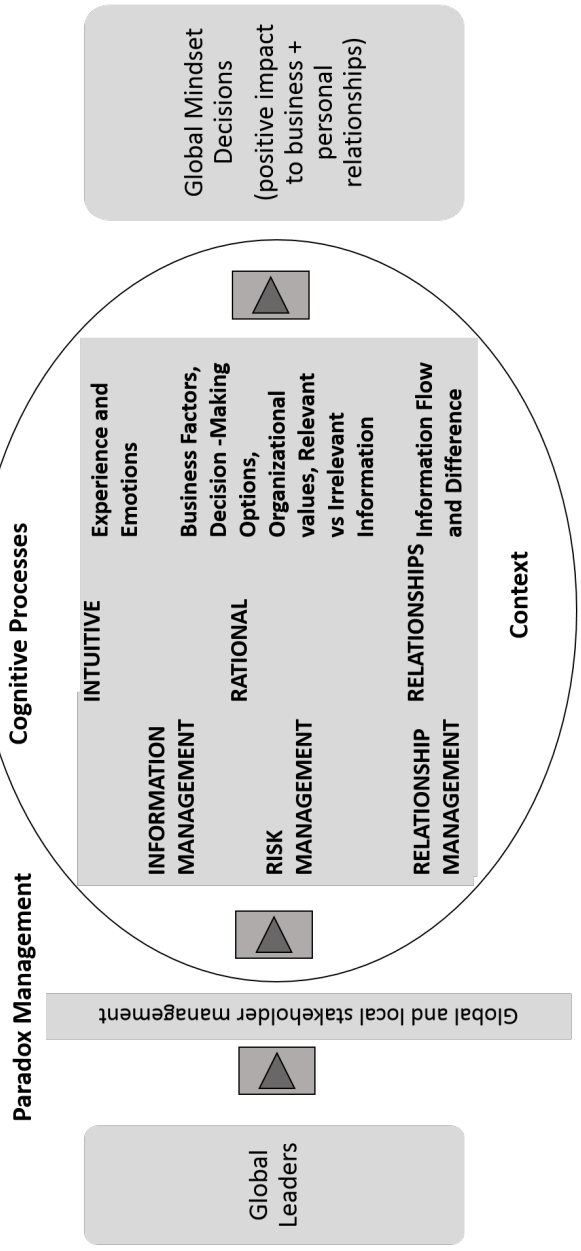

Figure 2. Global Mindset Model—Revised.

Appendix C
Study 1: Qualitative Interview Script

Interviewer Instructions

"Thank you for taking the time to talk with me today and for your agreement to participate in this research. First of all, do you have any questions relating to the research itself or with regard to your agreement to participate in this research? Let's cover those off now, if you have."

Wait for interviewee to provide verbal consent to participate in research. Confirm consent and proceed.

"Do you mind if we start to go down the wrong path with your example, that I stop you and I try to reword my questions to bring you back on track? Thank you."

"For the purposes of this interview, you will be asked about a critical incident in which you had to make a difficult decision. I am particularly interested in decisions that had a broad impact on both global stakeholders (people who live and work outside of the country where you are located), as well as local stakeholders (people who live and work inside the country where you are located)."

"You will be asked to describe a scenario or critical incident and where possible, to break this incident down into critical stages (steps 1 through 6). Please include at least 3 steps, but no more than 6 and talk through each stage in sequence. As you describe your scenario, I may ask a series of questions about how you thought and acted at each stage of the critical incident to gain additional details where needed."

"Tell me about a situation which you have experienced in your role as a global leader where you managed a tension between one or more global stakeholders and one or more local stakeholders. This is likely to have created a business issue for you to manage and resolve. The tension arising is likely to have resulted because of competing interests or agendas and whereby you had to make a decision which resulted in an outcome affecting both sets of stakeholders."

Qualitative Interview Script (cont.)

The interviewer used the open ended prompts below:

- Please describe the situation.
- How did you resolve the situation?
- How were global stakeholders impacted?
- How were local stakeholders impacted?
- In your opinion, how favorable was the outcome?
- How was the business impacted?
- In retrospect, would you have done anything differently?

The probing questions below were not an exhaustive list and were used depending on the responses that the participants gave to the questions. Additional probing questions were introduced depending on the responses given. Additional probing questions:

How did you know that?
Why did you think/believe that?
What information did you use to formulate a view/make a decision?
Why did you decide to use that information?
What other information did you consider, but disregarded?
Why did you disregard that information?
What were your thoughts at that point?
What were your feelings at that point?
How did that help you to make a decision?
What factors did you consider before making any decisions?
What factors influenced your decisions?
Why was that important to this scenario?
Why was that not important to this scenario?
In your opinion, what was the most important information or other considerations in relation to the overall decision which you made?

Appendix D

Study 2: Quantitative Online Survey
Global Leader Factor Frequency

Read each item carefully. Rate the frequency of your experience with the items below.

1 Never	2 Rarely (10% of the time)	3 Occasionally (30% of the time)	4 Sometimes (50% of the time)	5 Frequently (70% of the time)	6 Usually (90% of the time)	7 Always

1. Before making decisions, I consider the conflicting goals or objectives that may exist between global and local stakeholders.
2. Before making decisions, I consider the information I have and how this may impact global and local stakeholders.
3. Before making decisions, I consider relevant business factors.
4. Before making decisions, I consider information gathered from internal and external stakeholders.
5. Before making decisions, I consider the risks to the business.
6. Before making decisions, I consider how differences in business processes (e.g. in different countries) may impact information or outcomes.
7. Before making decisions, I consider the risks of damaging my relationships with global and local stakeholders.
8. Before making decisions, I consider how differences in people may impact information or outcomes.
9. Before making decisions, I consider the risks of using certain information.
10. Before making decisions, I consider my organization's culture or values.
11. Before making decisions, I consider the potential impact on people (i.e. non relationships).
12. Before making decisions, I consider the potential impact on people (i.e. relationships).
13. Before making decisions, I consider separating out irrelevant information.
14. Before making decisions, I consider the potential outcomes of different options or alternatives.
15. Before making decisions, I consider facts or data.
16. Before making decisions, I consider the potential impact on the business.
17. Before making decisions, I consider my emotions or the emotions of others.
18. Before making decisions, I consider the past experiences or the experiences of others.
19. Before making decisions, I consider my 'gut feeling' or intuition.
20. To guide my decision making, I consider BOTH the impact to the business and the impact to personal relationships before making a final decision.
21. To guide my decision making, I consider ONLY the impact to personal relationships before making a final decision.
22. To guide my decision making, I consider ONLY the impact to the business before making a final decision.

Study 2: Quantitative Online Surveys
Global Leader Factor Importance

In making decisions, please indicate THE IMPORTANCE you place on the following factors in your decision-making. Using percentages which make a total of 100%, indicate what percentage importance you place on the following factors when making decisions. You DO NOT need to use all factors. You may decide to use SOME of them, ALL of them or NONE of them. If NONE of them, please select OTHER and list the factors you consider.

	Percent
Business Factors	_____
Differences (business processes or people)	_____
Emotions (self and others)	_____
Experience (self and others)	_____
Information (self and others)	_____
Intuition (gut feeling or perception of knowing)	_____
Options or Alternatives (consideration of more than one option)	_____
Organizational Culture or Values	_____
Rational Data (facts and figures)	_____
Relationships	_____
Relevant versus Non Relevant Information (separating these)	_____
Risk Management	_____
Other (please specify)	_____
Other (please specify)	_____
Other (please specify)	_____
Total	_____

Appendix E

Study 1 Summary Tables

Table 1

Study 1 Results - Global Leader Qualitative Interview Demographic Information

Interview	Company A or B	Topic	Job Title
1	A	Gas Explosion	Senior VP - Legal, Asia, Middle East, Africa and Southern Europe
2	A	Exiting Libya/ Retaining Key Employees	Operations Director - Gulf and North Africa
3	A	Risk Management/ Talent Retention	Project Delivery Director – Asia, Middle East, Africa and Southern Europe
4	B	Brexit/Impact on Business Operations	VP Operations
5	A	Change Transformation/ Restructure	[a]Chief Transformation Officer formerly President, Middle East and Africa
6	B	Business Process Re-Engineering	[a]Head of Overseas formerly Head of Aviation and Ground Operations
7	B	Supply Chain Changes	Destination Manager - Caribbean
8	B	Volcanic Ash/Emergency Response Procedures	Operations Director or VP of Operations

Note. [a]Job changes/job title changes between initial request for interview and interview being conducted. Company A = Engineering; Company B = Travel.

Table 2

Study 1 Results - Global Leader Qualitative Interview Factor Summary

Interview	IM	IN	EX	EM	RA	EvNE	BF	REL MG	IF	CUL	DIF	OV	OC	DMO	RIS MG
1	X	X	X	X	X	X	X	X	X		X	X	X	X	X
2	X		X	X	X	X	X	X	X		X	X		X	X
3	X		X	X	X	X	X	X	X		X	X	X	X	X
4	X		X	X	X	X	X	X	X					X	X
5	X	X	X	X	X	X	X	X	X					X	X
6	X		X	X	X	X	X	X	X		X			X	X
7	X		X	X	X		X	X	X			X	X	X	X
8	X		X	X	X	X	X	X	X					X	X

Note: IM = Information Management; IN = Intuition; EX= Experience; EM = Emotions; RA = Rational; EvNE = Essential vs Non Essential; BF=Business Factors; REL MG = Relationship Management; IF = Information Flow; CUL = Culture; DIF = Difference; OV= Organizational Values; OC= Organizational Climate; DMO=Decision-Making Options; RIS MG=Risk Management.

Table 3

Study 1 Results – Qualitative Interviews Factors, Definitions, Examples and Sample Quotes

Factor	Definition	Examples	Sample Quotes
Business Factors	Any factors which will impact the business either positively or negatively	Organizational restructuring, budget cuts, increased sales	"We actually severed the employment of the expats. Again, business decision, not an easy one." "…because there is a big shift over obviously to increase our web sales and extend our sales by the web…"
Decision-Making Options	More than one choice or option is available which could result in different outcomes	Decision to consider or disregard staff emotions.	"…so we always have the option to go somewhere else, the trouble is that we have got so many things involved with them that selling excursions is just a little bit of it and we have to consider the whole piece, which might limit what we can and can't do." "so it will be a compromise, take out UK costs and retain in country presence is where I think we may end up."

Table 3

Study 1 Results – Qualitative Interviews Factors, Definitions, Examples and Sample Quotes

Factor	Definition	Examples	Sample Quotes
Differences	Any difference either observed or perceived in relation to people or business operations	There were differences in business processes across countries	"We are different people so we have different styles and we have to appreciate it." "The complexity that adds to my worries or considerations is that this isn't the same in every country, it's going to be different in every country."
Emotions	Any emotion or emotional response from any stakeholder	Unhappy/sad, distressed, etc.	"It's that whole emotions piece around, you know, people feel very strongly if you muck around with their pay and conditions." "I guess the main one was the potential hostility I would get from the management."

Table 3

Study 1 Results – Qualitative Interviews Factors, Definitions, Examples and Sample Quotes

Factor	Definition	Examples	Sample Quotes
Experience	Experiences from either self or any other stakeholder which guides thinking	In my last job I had experience of changing vendors	"…we had never kind of done anything to this scale before or experienced anything like this." "…and bring someone in with a non proven capability. It could have turned out to be a disaster really to be honest."
Information Flow	Any person or business process from which information is obtained	Customers, team members, external vendors, customer relationship management system	"He came highly recommended from people I had worked with before, who I had a lot of respect for…" "I established that by sharing my intentions or thoughts with the right people."

Table 3

Study 1 Results – Qualitative Interviews Factors, Definitions, Examples and Sample Quotes

Factor	Definition	Examples	Sample Quotes
Information Management	Information is being used to guide decisions	We had a process that should be followed and we established that it had not been followed	"The majority of these firms in the countries that we deal in don't have this capability or it's quite expensive for them to do it, so that then moves to a manual process, which will have an impact on the UK loading team." "We had a process that was used in the repair of certain equipment that relied on chemicals and something went wrong in that process…"
Intuitive Information Processing	A gut feeling or sense of knowing	I felt like he couldn't be trusted	"…so I sort of picked up a few bits going through and that, and as I sort of, got a feel for it" "…my gut is pretty good, but I always try to validate it, so you don't become bias on your gut feel."

Table 3

Study 1 Results – Qualitative Interviews Factors, Definitions, Examples and Sample Quotes

Factor	Definition	Examples	Sample Quotes
Rational Information Processing	Hard data. Facts and figures	Customer service data showed that customer satisfaction had increased	"And I think that bringing that sale further back when they have that incentive to buy and they are excited is the way to go and we will get more sales from it and a better customer experience." "…well it's the hard facts and evidence, so I had to go there with all the statistics and all the facts and figures to back it up."
Relationship Management	Any factor which could impact a relationship either positively or negatively is managed	He damaged the relationship through this actions	"There was an absolute requirement for him to maintain a relationship with those who were criticizing him, albeit unfounded." "…and I knew that he was going to be very, very resistant of stopping working with this supplier because it damages relationships, friendships, etc."

Table 3

Study 1 Results – Qualitative Interviews Factors, Definitions, Examples and Sample Quotes

Factor	Definition	Examples	Sample Quotes
Relevant vs Irrelevant Information	Information is being separated into categories, data that is important to be considered and other information which is disregarded	That information was irrelevant for my purposes	"Some of the information that was coming in fairly early on that I disregarded was around the media and speculative communication." "It was something that needed responding to, but I dismissed it as being irrelevant."
Risk Management	Any risk to the business which could result in a detriment	Turnover of staff/loss of intellectual capital, damage to brand	"Yes a higher risk, but not the same risk that I was thinking of. A different risk that would have more than trumped the benefits." "It hadn't been properly managed and so there was a lot of internal review and soul searching on that and developing a new way of dealing with those risks so that it doesn't happen again."

Table 3

Study 1 Results – Qualitative Interviews Factors, Definitions, Examples and Sample Quotes

Factor	Definition	Examples	Sample Quotes
Organization Values	Organizational behaviors which guide the actions of others	Our company values are 'we act with integrity'	"I was fortunate to work for a global multinational that was based on values. The first thing was to make sure we were aligned."
			"We wanted our values, our culture to be part of the campaign."

Table 4

Study 1 – Sample Demographics (N=8)

Demographic		Frequency	Percent
Gender	Male	6	80
	Female	2	20
Industry	Engineering	4	50
	Travel	4	50
Race	White/Caucasian	6	80
	Mixed Race	2	20
Age	Under 30	1	2
	31-40	12	24
	41-50	19	38
	51-60	12	24
	60+	6	12
Length of Service (Years)	Less than 1	0	-
	1-5	3	37.5
	6-10	0	-
	11-15	2	25
	16-20	2	25
	20+	1	12.5
Job Title	Chief Transformation Officer	1	12.5
	Senior Vice President	1	12.5
	Director	3	37.5
	Vice President	1	12.5
	Head of Function	1	12.5
	Manager	1	12.5
Number of Job Grades Above Them	One	3	37.5
	Two	3	37.5
	Three	2	25
	Four	0	-
	Five +	0	-

Table 5

Study 2 - Sample Demographics (N=50)

Demographic		Frequency	Percent
Gender	Male	31	62
	Female	18	36
	Unidentified	1	2
Age	<30	1	2
	31-40	12	24
	41-50	19	38
	51-60	12	24
	60+	6	12
Race	White/Caucasian/Anglo/ European	43	86
	Asian, Chinese or Japanese	1	2
	Middle Eastern (including Northern African, Arabic, West Asian)	1	2
	Hispanic/Latino	2	4
	Multiracial	1	2
	Other-Ukrainian/French	1	2
	Other-Indian	1	2
Length of Service	Less than 1	2	4
	1-5	10	20
	6-10	8	16
	11-15	12	24
	16-20	8	16
	20+	10	20

Table 5 continued

Study 2 - Sample Demographics (N=50)

Demographic		Frequency	Percent
Job Title	CEO/COO/CFO/Executive	4	8
	Sr. Dir./SVP/Head of Business Unit	8	16
	Director/VP	16	32
	Sr. Mgr./Dept. Head	11	22
	Manager/Supervisor	7	14
	Non-Manager	1	2
	Professional	1	2
	Other- Managing Director	1	2
	Other- Project Mgmt.	1	2
Number of Job Grades Above Them	Zero	3	6
	1	8	16
	2	13	26
	3	14	28
	4	9	18
	5+	3	6
Are you bicultural or multicultural?	Yes	21	42
	No	29	58

Table 5 continued

Demographic		Frequency	Percent
How frequently do you interact with global stakeholders? (people outside of your country)	Never	1	2
	Rarely	3	6
	Occasionally	7	14
	Sometimes	5	10
	Frequently	13	26
	Usually	13	26
	Always	8	16
To what extent is your workplace comprised of people with a different cultural background?	Zero	0	-
	10% are different	9	18
	30% are different	7	14
	50% are different	11	22
	70% are different	10	20
	90% are different	10	20
	100% are different	3	6

Table 5 continued

Industry Sectors		Percent
	Agriculture, Forestry & Fishing	16
	Business Services	2
	Construction	4
	Financial Services/Insurance	2
	Hospitality/Entertainment/Recreation	8
	Information Technology	2
	Marketing	2
	Oil and Gas, Energy or Utilities	42
	Other Not Specified	4
	Pharmaceuticals	2
	Professional Services	16
	Telecommunications	2
	Tourism	2

Table 6

Study 2 - Means, Standard Deviations, and Most Frequently Reported Factors

Question Before making decisions I consider:	M	SD	Most Frequently Reported Factor
Risk Management **The potential impact on the business**	6.34	.80	A
Risk Management **Risks to the business**	6.32	.94	A
Business Factors **Relevant business factors**	6.28	.78	A
Rational Information **Facts or data**	6.10	.91	A
Organizational Values **My organization's culture or values**	5.78	1.34	A
Decision-Making Options **The potential outcomes of different options or alternatives**	5.74	1.07	U
Relationship Management **Risks of damaging my relationships with global and local stakeholders**	5.72	1.21	U
Information Flow **The information I have and how this may impact global and local stakeholders**	5.67	1.09	U
Relationship Management **The potential impact on people (i.e. relationships).**	5.66	1.08	U
Paradox Management **The conflicting goals or objectives that may exist between global and local stakeholders**	5.66	0.98	F/U

Table 6

Study 2 - Means, Standard Deviations, and Most Frequently Reported Factors

Question Before making decisions I consider:	M	SD	Most Frequently Reported Factor
Experience **The past experiences or the experiences of others**	5.61	0.95	F
Relevant vs Irrelevant Information **Separating out irrelevant information**	5.60	1.29	A
Risk Management **Risks of using certain information**	5.54	1.23	U
Relationship Management **The potential impact on people (i.e. non relationships)**	5.46	1.25	F
Difference **How differences in business processes (e.g. in different countries) may impact information or outcomes**	5.46	1.20	U
Information Flow **Information gathered from internal and external stakeholders**	5.40	1.18	F
Overall Decision Making **Both the impact to the business and the impact to personal relationships before making a final decision**	5.40	1.09	F/U
Difference **How differences in people may impact information or outcomes**	5.40	0.93	F
Intuition **My gut feeling or intuition**	4.82	1.26	F
Emotions **My emotions or the emotions of others**	4.38	1.28	S

Table 6 Continued

Question Before making decisions I consider:	M	SD	Most Frequently Reported Factor
Overall Decision Making **ONLY the impact to the business before making a final decision**	3.28	1.58	R
Overall Decision Making **ONLY the impact to personal relationship before making a final decision**	2.18	1.24	R

Table 7

Study 2 - Priority of Factors Ranked in Descending Order

Factor	Ranking	Percent
Business Factors	1	23.18
Rational Data (facts and data)	2	11.42
Experience (self and others)	3	10.06
Information (self and others)	4	10.04
Risk Management	5	8.82
Organization Values	6	8.08
Options or Alternatives (considering more than one option)	7	6.88
Intuition (gut feeling or perception of knowing)	8	6.66
Relationships	9	4.32
Differences (processes or people)	10	3.88
Emotions (self or others)	11	3.50
Relevant vs Irrelevant Information (separating these)	12	3.06