



MBA Thesis

# Effective Leadership in a Global Environment

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The author(s) declare(s) that they have completed the thesis work independently. All external sources are cited and listed under the References section. The thesis work has not been submitted in the same or similar form to any other institution(s) as part of another examination or degree.

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## Abstract

Leaders of today have the challenge to lead in a complex, rapidly changing, multicultural context. In most industries, leaders perform tasks on a global level and they are required to have the necessary competencies to be more effective. It is a well-known fact that organizations are still negatively affected in terms of competitiveness and growth, due to leaders' lack of capabilities to lead effectively. Furthermore, despite the previous academic contributions, global leadership still remains a developing field to be explored. Previous studies on the global leadership listed various competencies to lead to effectively in a global environment. However, a limited evidence was provided to support direct relationship between those competencies and the global leadership effectiveness. Moreover, previous studies have concentrated mainly on defining global leadership competencies, but there is still a gap to understand which of those competencies makes global leaders effective. There is also a strong need for conducting more empirical studies in the field. In response to this gap, the purpose of this research is to identify necessary competencies for global leadership effectiveness and test them empirically. Structural Equation Modelling was used as a research method with the data collected from a questionnaire of 175 respondents worldwide, mainly located in Europe. The results of the research showed that Cross-Cultural Experience, Cultural Flexibility and Stress Tolerance predict global leadership effectiveness. Furthermore, detailed explanation of each competency that predict global leadership effectiveness were provided. The results of this research have both theoretical and managerial implications. Firstly, it proves empirically and quantitatively the relationship between identified competencies and global leadership effectiveness. Secondly, the results of the research contribute to the existing literature where there is a limited amount of research that focus on understanding global leadership competencies and global leadership effectiveness.

Keywords: Global Leadership, Global Leadership Effectiveness, Leadership, Management.

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# I. Introduction

This chapter presents the background of the research, the research problem, its purpose, delimitations and the thesis structure.

## I.1. Background

Global leadership is becoming an important practice in both private and public organizations. Recent technological developments have changed the way information and expertise are shared around the world, leading to an increase on global interactions. Corporations are no longer operating only on a national level, rather they deal with employees, customers and suppliers on a global level (Mau, 2016). This has resulted in new challenges for leaders who operate in a global context and deal with complexity that is significantly different from a non-global context (Jokinen, 2005, Steven & Rosenbusch, 2013).

Vogelgesang et. al. (2014) define global leadership as “the ability to influence people from different cultures to pursue a common vision through structures and methods that will enable a positive change and collective growth in a highly complex and uncertain environment.” According to Yoon & Han (2018), global leadership is the process which leaders influence and facilitate group of people across cultures to achieve goals in a complex and diverse context. Global leaders contribute to achieve organizational goals while leading people and resources in a global level with an objective to make the right decisions at the right time and the right place (Canals, 2014). Caligiuri & Tarique (2009) define global leaders as individuals who perform global tasks, global integration and leadership activities. Dalton et al. (2002) define global leader as the person who effectively lead across countries and cultures in a complex and global environment.

Global leaders operate in a global context that is characterized by Mendenhall & Oddou (1985) with three main features: complexity, flow and presence. Complexity refers to the nature of the global environment that is highly complex, interdependent and rapidly changing. Flow refers to the depth of the interactions and relationships that influence individuals. Presence refers to requirement for global leaders to be present in more than one geographical location (Mendenhall & Oddou, 1985). According to Canals (2014), complexity and uncertainty arise from a variety of factors in the global context such as diversity of cultures, individuals, companies, clients, suppliers, different governments and policies, higher uncertainties on economies, interdependence between businesses and countries, as well as learning processes to operate and lead in a global context. Caligiuri (2006) lists the most common global leadership responsibilities as working with colleagues from different countries, interacting with clients around the world, communicating in foreign languages, leading individuals with different nationalities, working with global strategies, managing budgets for global business units, negotiating with

international stakeholders and managing risks on a global level. Furthermore, in their book Goldsmith et. al. (2003) identify the most important competencies for the global leader as the ability to think globally, appreciating diversity, having necessary knowledge and skills for latest technologies, ability to collaborate with people from different cultures and ability to distribute leadership responsibility within a team. However, according to Caligiuri et.al (2019), it is a well-known fact that organizations are negatively affected in terms of competitiveness and growth, due to lack of capabilities of their leaders to lead effectively in the global context.

## **1.2. Problem formulation and Purpose**

The importance of the global leadership is widely recognized as a result of globalization and the latest technological advances that have eliminated boundaries in the business world (Beechler & Javidan, 2007). As organizations grow in global markets, they are required to manage a diverse workforce and have the challenge to keep up with the latest changes on a global level. Global leaders who effectively manage through in this complex, rapidly changing and often uncertain context are critical for organizations' future success (Caligiuri & Tarique, 2009). This leads to an increased demand for leaders having the necessary competencies to execute leadership practices in a global context that is crucial to success of organizations (Bartlett & Ghoshal, 1992; Caligiuri & Di Santo, 2001). Global leaders are expected to possess new competencies that enable them to lead effectively in the global context that is rapidly changing (Adler, 2002). Effective leadership is crucial both in setting the correct path and in executing strategies that effectively drive organizations to the right direction. Effective leadership is considered as one of the necessary parts for organizations to maintain their business while facing challenges caused by rapid development of the economic world (Hao & Yazdanifard, 2015). An organization with effective leadership at all levels is more likely to survive in times of difficulty, maintain its growth and achieve its targets. Furthermore, effective leadership could help to achieving organizational goals and reaching success, even though organizational resources such as financial, human and material are minimal (Schuetz, 2017).

Over the past two decades researchers have therefore focused on examining skills, competencies and characteristics of individuals who take on responsibilities on the global leadership. Several researches argued that global leadership is significantly different from the domestic leadership particularly in terms of skills and competencies needed by the global leaders (Mendenhall et.al.,2012). Specifically, previous studies aimed to establish a range of global leadership competencies and to differentiate between global leadership and domestic leadership competencies (Mendenhall et.al.,2012) as global leadership requires unique set of competencies (Steven & Rosenbusch, 2013).

Despite previous academic contributions, global leadership remains a developing field to be explored. Although progress has been made in identifying the competencies needed by global leaders, existing studies have not yet provided conclusive findings on the global leadership effectiveness (Steven & Rosenbusch, 2013). According to Caligiuri & Tarique (2009), there is limited studies on the existing literature that focuses on identifying and describing competencies that are related to global leadership effectiveness. Existing studies mainly focus on understanding global leadership and what competencies a global leader should have rather than in determining which of those identified competencies make global leaders effective. As a result, very limited work has been done on exploring the essential competencies that make global leaders effective. Furthermore, most of the previous studies applied a competency approach by suggesting that identified leadership competencies will result global leadership effectiveness (Terrell & Rosenbusch, 2013). Although there has been a theoretical basis to support the relationship between identified competencies and the global leadership effectiveness in previous studies, there is still a need for empiric studies to assess relationship between identified competencies and how they contribute to global leadership effectiveness. Beechler & Javidan (2007) indicate that the existing literature on global leadership effectiveness is more theoretical than empirical, addressing problems theoretically rather than examining them by using empirical methods.

In short, previous studies have concentrated mainly on defining global leadership competencies, but there is a still a gap understanding which of those competencies makes global leaders effective, as well as a strong need for conducting more empirical studies in the field. In response to this gap, the purpose of this research is to identify competencies that contribute to global leadership effectiveness and test them empirically by using selected research method. To meet this purpose, following research question is formulated:

***What are the essential competencies for effective leadership in a global environment?***

Given the importance of global leadership and the increased demand of leaders with the requisite skills to effectively lead in global environments, this study explores the essential competencies that empower individuals to achieve effective global leadership. Furthermore, once completed this study aims to contribute to existing gap in the field, as well as to help leaders to recognize the key competencies for effective global leadership. As stated by Schuetz (2017), business properties, assets, high-tech equipment, large financial resources and qualified employees only count if they are combined with the effective leaders who can take full potential of their resources.

### 1.3. Delimitations

The geographical delimitation for data collection is mainly delimited to Europe where majority of the respondents coming from Sweden, Turkey and Poland among other respondents participated in this study. Respondents were delimited to individuals who are working in organizations of different sizes and operating in a wide range of industries on a global level.

### 1.4. Thesis structure

This report is structured as follows:

**Chapter 1:** Introduction chapter presents background of the research, together with the research problem and its purpose, delimitations and thesis structure.

**Chapter 2:** Theory chapter provides the theoretical background based on the existing literature related to the research problem by focusing on global leadership competencies, global leadership effectiveness, cross-cultural competencies, cross-cultural experience and personality characteristics.

**Chapter 3:** Methodology chapter presents the selected research method, motivation behind the selection, implementation of the method and data collection.

**Chapter 4:** Analysis chapter presents the analysis and the results.

**Chapter 5:** Presents discussion and conclusions of the research, including a theoretical and managerial implications, limitations and recommendation for further research.

## 2. Literature Review

This chapter provides the theoretical background on the global leadership effectiveness, global leadership competencies, cross-cultural competencies, cross-cultural experience and personality characteristics.

### 2.1. Global Leadership Effectiveness

Global leadership effectiveness is considered as one of the main sources of competitive advantage and organizational growth (Amagoh, 2009). Although there is a considerable amount of research on the global leadership competencies, less work has been done to determine the relationship between these competencies and the global leadership effectiveness.

Theoretical foundation in the field of global leadership competencies assume that the identified necessary competencies for global leaders enable them to be effective in situations that require global leadership. In this regard, Caligiuri & Tarique (2009) made a significant contribution by using measures of global leadership performance in their research. Furthermore, Caligiuri (2006) identified global leadership tasks and further investigated predictors of effectiveness when executing those leadership tasks (Caligiuri & Tarique, 2009).

Leadership effectiveness is generally defined as the ability of the leader to effectively influence followers to achieve organizational goals. According to Amagoh (2009), leadership effectiveness refers to “the success of a leader in influencing followers towards the achievement of organizational goals” as well as “an evolutionary process of interdependent events and individual responses to these events”. Madanchian et. al, (2017) stated that effective leaders have specific competencies, knowledge and behaviors that enable them to create situations best for the organizations. Schuetz (2017) stated that most important factors that have impact on the leadership effectiveness are leader’s background, experience and personality, expectations from superiors, as well as followers’ background, personality, knowledge and skills. According to Sonmez & Adiguzel (2020), leader's effectiveness is the performance of the leader in managing and influencing own actions in accomplishing organizational objectives. Schuetz (2017) mentioned that ability to adapt new circumstances, continuous development, cooperation with others and communication competency play an important role on the leadership effectiveness.

Effective leaders ensure that organizational goals are met in line with a vision and mission and they establish a high degree of engagement and encouragement for followers to achieve high-performance

(Sonmez & Adiguzel, 2020). Organizations that have effective leaders could innovate and respond to changes in markets and environments more quickly and maintain high performance (Amagoh, 2009).

## 2.2. Global Leadership Competencies

In today's global business environment, understanding international interaction is essential for leaders to work effectively. It has been frequently argued that many successful domestic leaders do not succeed in the global arena. Recent studies have confirmed that there are a number of key competencies that predict leadership effectiveness in a global environment. The theoretical background on the global leadership also suggest that there are set of essential competencies enable leaders to be more effective when leading in global environments (Amagoh, 2009), regardless of level, organizational role or size of organization (Herd et. al, 2016). Black et.al (1999) conducted a research by studying 50 global corporations over three years period and concluded that nearly two-thirds of the characteristics of effective global leaders are generalizable, while the remaining third is a context specific. Furthermore, Kets de Vries & Florent-Treacy (2002) mentioned that successful domestic leaders usually have same competencies as global leaders, however only excellent global leaders could use these capabilities even in extremely unfamiliar situations.

Global leadership competencies are described as the key qualities that allow leaders to perform their tasks in different cultural environments, for instance while working with people from different countries or while working in abroad (Jokinen, 2005). These competencies include combination of certain terms such as personal traits, skills, values and knowledge (Jokinen, 2005). Global leadership practices, where the leader is required to work in a global context, exist in different levels of organizations and the tasks could vary based on the job specific demands including both technical and leadership (Herd et.al, 2016).

Moran & Riesenberger (1994) have suggested that global leaders should have a global mindset, ability to work equally with individuals from different backgrounds, a long-term view, ability to facilitate changes, ability to inspire others, understanding of own values and cultures of others, ability to demonstrate respect for other countries and cultures.

In his research on competency needs of global leaders, Brownell (2006) has suggested that global leaders are characterized by two set of competencies as common competencies and distinctive competencies. Common competencies are described as the basic abilities and knowledge most leaders will have either by education or formal training. While distinctive competencies are described as individual characteristics of the leader that are complex and hard to achieve (Brownell, 2006).

According to Goldsmith et. al (2003) the competencies of effective leadership are “demonstrating a shared vision, showing integrity, focusing on business results, and securing the customer satisfaction.” Jokinen (2005) have listed global leadership competencies as self-awareness, open mindedness, optimism, having a social competency, having a motivation to work with foreigners and acceptance of uncertainty. According to Jokinen (2005), the path to success of the global leader lies in a combination of personality characteristics such as intellectual capability, self-confidence, openness, emotional stability, and the management competencies such as social skills, cultural flexibility, communication skills and ability to handle stress.

Caligiuri and Di Santo (2001) have studied the necessary competencies of global leaders from the organizational point of view and listed them as the ability to conduct business in abroad, ability to lead change, knowledge of global business and global business issues, knowledge of company business structure, openness and flexibility.

Based on the research conducted by Conner (2000) on developing global leaders of tomorrow, Jokinen (2005) identified number of competencies for global leaders under six main categories as business knowledge, ability to influence others, global mindset, strong personality, ability to motivate others and entrepreneurial drive.

Mau (2016) identified seven important competencies for global leaders as open-mindedness, having technical and business skills, cultural interest and flexibility, stress tolerance, ability to deal with complex situations, possessing integrity and honesty and stable personality. Furthermore, Mau (2016) referred six most identified global leadership competencies as flexibility, being open-minded, respect, communication skills and motivation to learn new things.

According to Herd et. al (2016), despite having differences most competency models on the literature mention the importance of having a global mindset, having skills to adapt cultural differences and being open to learn new things for global leaders.

Current literature on global leadership competencies includes material that are very close to each other. Most of the developed frameworks and conducted studies incorporate certain competencies, knowledge and personality characteristics into the same model and suggest that global leadership competencies are combinations of those for effective leadership. On the other hand, there are scholars who share the view that there is still an existing gap on the literature on global leadership competencies and leadership effectiveness that should be further explored.

### 2.3. Cultural Flexibility

The global workplace today is more diverse and dynamic than ever before. Organizations have businesses, customers, and employees all over the world that require leaders to work across time, distance and cultures. As a result, the leaders who work in global organizations are required to have the ability to recognize cultural differences and effectively work across cultures (Prince & Deal, 2018). The cultural differences have an impact on individual expectations, approaches, opinions and interaction with others. Therefore, leaders should be able to figure out the differences and similarities between themselves and other individuals that they work with in order to build and maintain relationships which will enable them to work with effectively with others. (Prince & Deal, 2018). It is important for organizations to have the leaders who can operate competently across cultures and able to adapt cultural differences. These competencies are important due to the demand on the global leader to meet expectation of followers in different countries and cultures to effectively lead.

Culture is defined as “the combination of common characteristics that affects the response of a human group to its surroundings and it specifies the uniqueness of the human group in the same way as personality specifies uniqueness of an individual” (Blaskova, 2015). Flexibility is “the individual’s ability to easily adapt and respond to changes, the ability to take fast actions and the adaptability of behaviors and mental processes” (Blaskova, 2015). Shaffer et al. (2006) describe the cultural flexibility as “the capacity to substitute cultural activities of one’s own with existing, distinct activities in a foreign host country or foreign environment”. According to Maznevski & DiStefano (2000), cultural flexibility contributes to the effectiveness of the leader when operating in global environments for longer periods of times.

To effectively lead a diverse group of people, leaders need to have the knowledge of cultural background of individuals in the group as well as ability to be culturally flexible. This will help leaders to respect and accept the practices of people from different national, geographical, or religious background, resulting a higher performance while leading in global context (Bonsu & Twum-Danso, 2018). According to Blaskova (2015), global leaders must consider the cultural differences and they should be able to react on the individual differences. Furthermore, global leaders should have the ability to response flexibly on different demands, requirements, conflicts and misunderstandings arisen within individuals in global environments. Moreover, existing research shows a positive relationship between cultural flexibility and adaptability to new cultures and environments (Mendenhall & Oddou 1985, Black, 1990, Arthur & Bennett 1995). Caligiuri et. al., (2019) concluded that individuals with a cultural flexibility could effectively manage themselves, their relationships as well as business` needs in a global environment. Furthermore, cultural flexibility was described as one of the competencies that predicts



the global leadership effectiveness in previous research by Kayes et.al. (2005) and Maznevski & DiStefano, (2000).

## 2.4. Cross-Cultural Experience

The cultural diversity of businesses requires leaders to ensure that they understand the cultural boundaries. Most teams in global businesses are made up of people from different nationalities, cultures and habits. According to Magala (2005) each culture has specific and unique patterns and interpretation of behaviors and thoughts due to origins that are based on different social contexts and settings. As a result, cross-cultural experience is one of the important competencies for a global leader working with mixed group of individuals with diverse backgrounds, behaviors and values (Schneider & Barsoux (2003).

To understand what competencies global leaders need to effectively lead, Hajro & Pudelko (2010) conducted 70 interviews with leaders from five global companies. As a result of their study, they found out that cross-cultural experience is one of the crucial competencies for a global leadership effectiveness. According to Glick (2002), several researchers who studied relationship between leader`s performance in cross-cultural settings and cultural trainings and experience that the leader have, found out that there is a positive relationship between cultural trainings, experience and leadership effectiveness. On the other hand, Kealy (1989) and Cui & Awa (1992) based on their studies found out that cross-cultural experience has a positive impact on the cultural adaptability of the leader, however it does not necessarily have a significant impact on the leader effectiveness (Glick, 2002).

In a global business context, it can be suggested that leaders acquire cross-cultural experience by communicating with people from different nationalities, coping with the cultural differences in global teams, building relationships with each other and performing tasks that are on a global level (Kayes et.al, 2005). Furthermore, Bandura (1977) also pointed out that individuals gain cross-cultural experience when interacting with people with different cultures and nationalities. Business-initiated activities such as travels to abroad or working with global assignments enable leaders to gain cross-cultural experience that would contribute positively to their effectiveness (Caligiuri & Tarique, 2009; Maznevski & DiStefano, 2000). According to Amir (1969), the more interaction the leaders experience in global environments, the more positive attitude they will have towards people from different countries and cultures.

## 2.5. Personality Characteristics

Existing research indicates that the global leadership effectiveness is linked to certain personality characteristics (Costa & McCrae, 1992, Caligiuri, 1997, 2000, Gupta & Govindarajan, 2002, Morrison, 2000). Personality characteristics are natural tendencies of individuals to behave in such ways that are stable and hard to change in a short period of time. These characteristics naturally lead individuals across circumstances and environments to display behaviors and reflect what the individual does instinctively (Sun & Shang, 2019).

Previous research indicates that **Openness** is linked to effective leadership meaning that open individuals are more likely to succeed as leaders and would be more effective (Judge et.al, 2002). Openness is a personality trait of the individual to the extent that the person is ambitious, creative and willing to take risks (Caligiuri & Tarique, 2012). According to Caligiuri & Tarique (2009) individuals with higher openness are more likely to be involved in international activities and therefore expected to have a higher cultural flexibility due to their interest in participating in activities, exploring new ways of doing things and meeting with new people. Furthermore, individuals with a higher openness are also expected to have a higher tolerance to uncertainties due to their ability to become more confident to adapt new situations. Previous studies have shown that the leaders that are open and have the ability to deal with complexities are more likely to be efficient when leading in global environments (Lange, 2015). Openness will allow leaders to learn new things and to understand reasons behind certain ways of behaviors and approaches of others. Furthermore, open-mindedness could lead to creativity and innovation that is needed for leaders to solve problems in a global environment (Bonsu & Twum-Danso, 2018).

Stress and leadership are associated with one another in several aspects. High level of stress associated with leadership role and tasks is often not observable (Harms et.al, 2016). Therefore, it is important to recognize that leaders should have a stress tolerance to handle stress well, because they are expected to face high level of stress while performing leadership tasks, especially in a global context.

**Stress tolerance** is the individual ability to manage stressful situations, insecurities and nervousness in challenging situations. Most scholars have indicated that leaders who can successfully navigate challenging situations have more effective decision-making capability (Harms et.al, 2016). According to Barrick & Mount (1991) individuals with a high tolerance to stress have a steady and self-confident attitude when dealing with uncertain situations. According to Harms et.al (2016), effective leadership requires that the leader should be able to dedicate considerable effort and cognitive resources to analyze problems and make decisions while maintaining the focus on the causes and circumstances that may impact decision-making parameters as well as maintain low stress level (Harms et.al, 2016). Caligiuri

& Tarique (2009) stated that leaders with a higher stress tolerance could cope with challenging situations with less stress and anxiety in global environments, as they would be more comfortable leaving their comfort zone and maintaining a low stress levels while interacting with people.

## 2.6. Hypotheses based on Theory

In order to achieve the purpose of this research, five hypotheses are formulated based on the theory presented. Although the identified competencies have a clear theoretical context to support their connection to global leadership effectiveness, empirical work will be carried out using the selected research method to test formulate hypotheses.

**H1:** Cross-Cultural Experience is positively related to Global Leadership Effectiveness.

**H2:** Cultural Flexibility is positively related to Global Leadership Effectiveness.

**H3:** Openness is positively related to Global Leadership Effectiveness.

**H4:** Stress Tolerance is positively related to Global Leadership Effectiveness.

**H5:** Cross-Cultural Experience, Cultural Flexibility, Openness and Stress Tolerance are positively related with each other.

### 3. Methodology

This chapter presents the selected research method, the motivation behind the selection and the implementation of the selected method.

#### 3.1. Structural Equation Modelling

In this research, Structural Equation Modelling (SEM) is selected as the research method. SEM is a quantitative research method that involves set of statistical models designed to identify relationships between multiple variables by using multivariate analysis technique as well as multiple regression analysis (Hair et al., 2010). This method helps to analyze interrelationships between constructs, dependent and independent variables.

SEM model consists of two main parts. First, the measurement model shows the combination of individually measured variables to form a construct. Second, the structural model shows the relationship between each construct. By using this method, researcher assesses the role of each measured variable in representing its corresponding construct and measures how well the combined set of variables represent the construct. As a result, researcher could estimate the relationship between constructs (Hair et al., 2010)

There are three main characteristics of SEM make this method relevant for this thesis. Firstly, the possibility to estimate multiple and interrelated dependence relationships that is created based on the theory. This is particularly useful when the relation between global leadership and identified competencies and personality competencies are evaluated. Secondly, the possibility to represent unobserved concepts within the relationships that is being investigated. For example, cross-cultural experience is mainly a reported phenomenon which is almost impossible to measure as tangible. Finally, the ability to create a visual representation of the model by using a path diagram rather than having it only in a form of mathematical equations is a useful tool to communicate the results of the research on the leadership effectiveness in a global context (Hair et al., 2010).

#### 3.2. Implementation of the method

Implementation of the SEM method includes both a structural model and a measurement model. In the SEM method, variables are the items that are measured in detail via a questionnaire which cover all the theoretical constructs presented. In traditional statistics, variables are considered as observable, since a variable can take an exact value measured directly. However, in this study, the questionnaire is made of constructs which are considered as unobservable. As a result, we use questions to measure them. They

are represented by the variables that come together mathematically to form the constructs. The constructs and their relationships then form the structural model.

### **Step 1**

In this step, the constructs were defined based on theory chapter. According to Hair et al. (2010), the theoretical background is necessary for SEM method in order to get useful results and to be able to make valid conclusions at the end of the research. Five constructs Global Leadership Effectiveness, Cross-Cultural Experience, Cultural Flexibility, Openness and Stress Tolerance were selected for the measurement model and structural model.

### **Step 2**

In this step, the questionnaire was developed, and group of questions were linked to a respective construct as the set of variables on a Likert scale.

### **Step 3**

In this step, the questionnaire was sent to respondents to collect the empirical data. In addition, preliminary analysis was also conducted to make sure that there is no missing data after the data collection was completed.

### **Step 4**

In this step, Exploratory Factor Analysis (EFA) is performed. It is performed on the collected dataset by using IBM SPSS 26 software. The objective was to select the relevant variables from the questions that explain the models best. To achieve this, explanatory factor analysis performs adjustments between the theoretical constructs and the results of the questionnaire, before moving to Confirmatory Factor Analysis (CFA).

### **Step 5**

In this step, structural paths were drawn between constructs on the model and the structural model is adjusted to reach an adequate fit. This step is called Structural Equation Modelling (SEM). Then, the structural model validity was estimated in order to assess if the model is a good fit and meets the predetermined criteria. This step is called Confirmatory Factor Analysis (CFA). CFA measures the latent variables and compares the theoretical measurement with the model based on the reality (Hoyle, 1995). In this step, indicators such as Chi-square statistic, GFI (Goodness of Fit Index), CFI

(Comparative Fit Index) are checked to confirm the model fit. By performing this action, it is confirmed that the model with the remaining constructs are reflecting the answers in the questionnaire. The SEM model drawn by using IBM AMOS 26 software and it is a reliable representation of the respondents' view on the global leadership effectiveness.

## **Step 6**

As the final step, the results were interpreted based on the proper interpretation of what global leadership effectiveness entails and conclusions were made to understand what it means for the industry in terms of global leadership and global leadership effectiveness.

### **3.3. Data Collection**

The questionnaire was closely developed in line with the theoretical background to collect the data. According to Harkness et al. (2003), there are three particular strategies in questionnaire design for a reliable research: Re-use of questions that are relevant from the existing questionnaires, modification of appropriate questions that have been used in questionnaires in existing research or creating entirely new questions.

Following Hair et al. (2003), the questionnaire in this research is designed based on existing questionnaires found in the existing literature. Questions relevant for each construct selected were partially modified. This approach ensured saving time and guaranteed qualities based on previously published results. In this early stage, the questionnaire was reviewed by the thesis supervisor to make sure there is no redundancy and the necessary adjustments were made before the questionnaire was distributed to the participants. The collection of data targeted a population of engineers, leaders and managers working all in global environments with global assignments and involved in all the aspects that the questionnaires covers. Participants of the questionnaire were consulted before they answer the questions. Procedurally, the aim of the research and the questionnaire were clarified when distributed. An online questionnaire was sent via personal emails to professionals who the researcher has an access in own professional network and they are asked to participate in the questionnaire. At the end of the questionnaire, the participants were asked to provide additional information about their educational background, current position, gender and nationality in order to provide key information about the sample population for this study. As it is shown on Figure 1, the questionnaire consisted of 25 questions and set of questions were linked to a related construct. The questionnaire is provided in the Appendix.

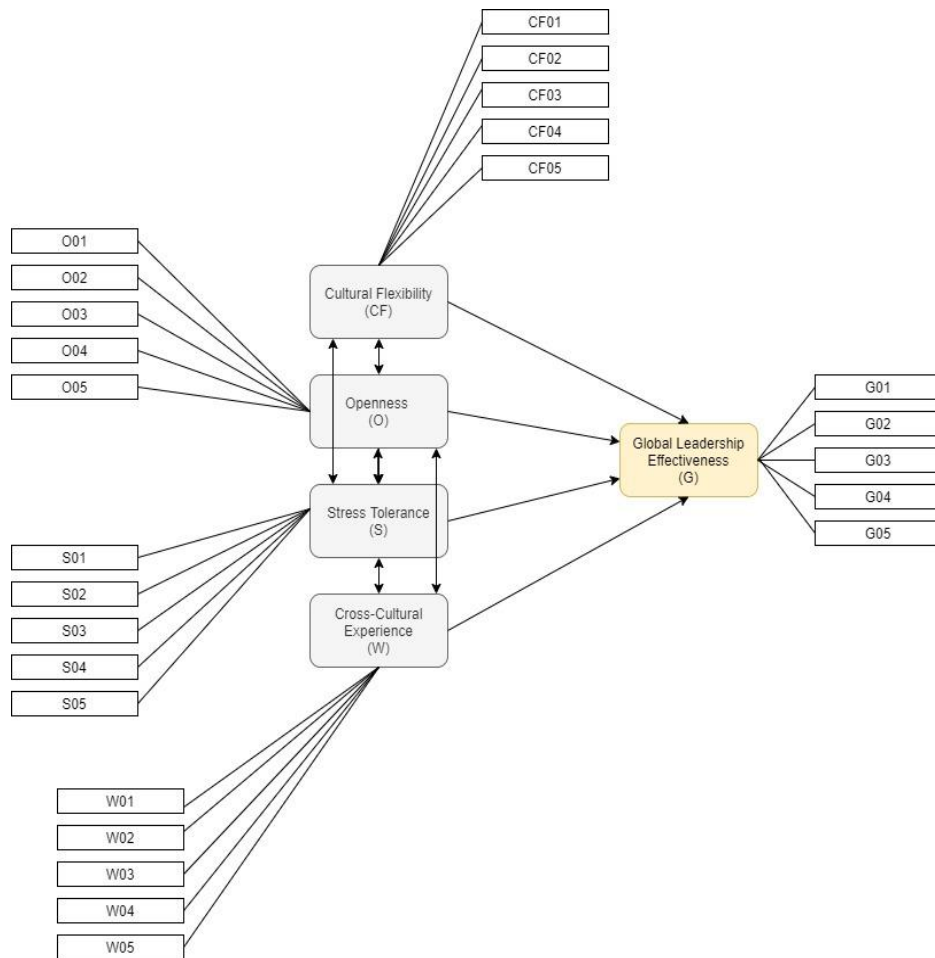


Figure 1 Relationships between the constructs and the questions

### 3.4. Sample Size

When using the SEM method, it is important to be aware of the sample size since statistical algorithms that used in this method may not be accurate if the sample size is relatively small. It is therefore important to consider how large a sample should be needed to produce accurate results. (Hair et al, 2010). On the other hand, although the determination of an acceptable sample size is a critical issue in SEM method, there is unfortunately no exact conclusion in the literature about the appropriate sample size for using the SEM method. According to Wang & Wang (2012), sample size of 100 to 150 (N=100 to N=150) is considered as a minimum sample size that is required for conducting SEM and getting accurate results. Furthermore, simulation studies determine that sample size of 150 (N=150) as the reasonable sample size for simple SEM models (Wang & Wang, 2012).

### 3.5. The Population

The questionnaire was sent to total 400 people worldwide, mainly located in Europe, working in organizations of different sizes and operating in a wide range of industries on a global level. At the end of 10 weeks data collection period, the questionnaire generated 175 responses (N=175) that gave 43% response rate. The respondents come from a total of 20 countries. As it is shown on Figure 2, Respondents from Sweden (46%) and Turkey (23%) represent more than half of the sample collected.

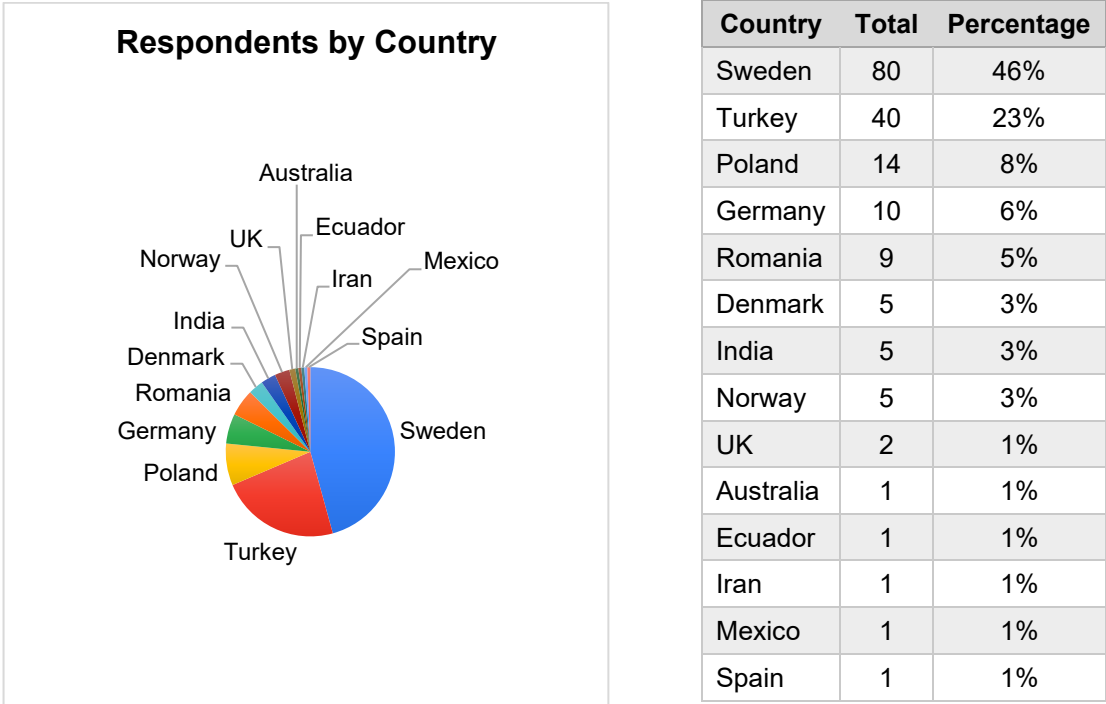
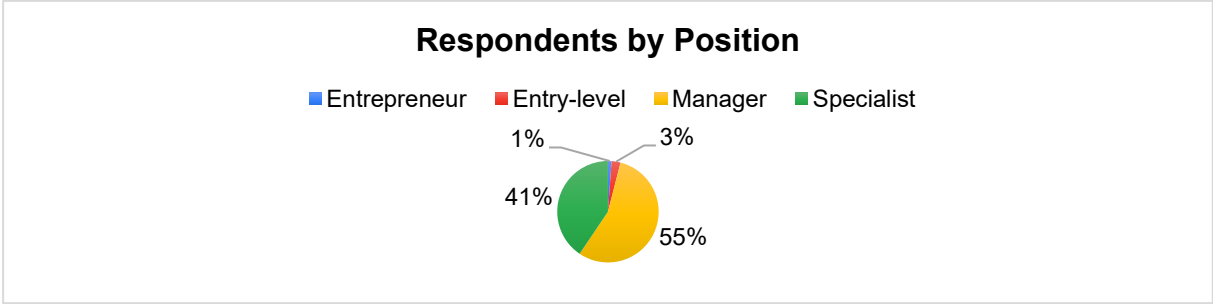


Figure 2 Respondents by country

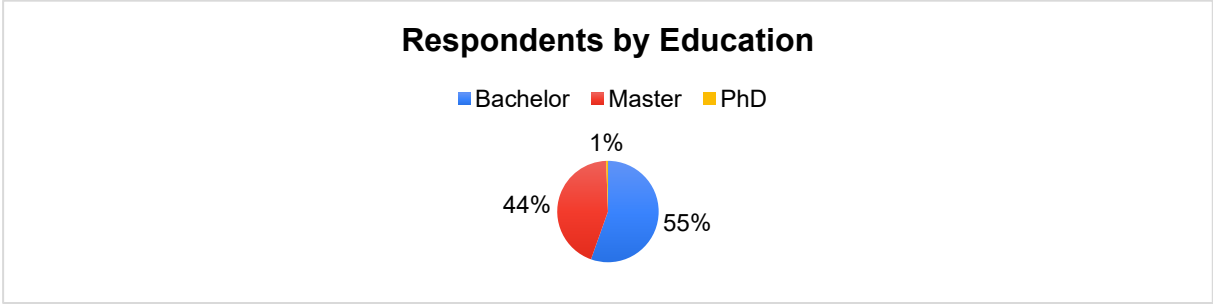
As show in Figure 3, more than half of the respondents have a management position (55%), while remaining were distributed between specialist role (41%), entry-level position (3%) and entrepreneur (1%).



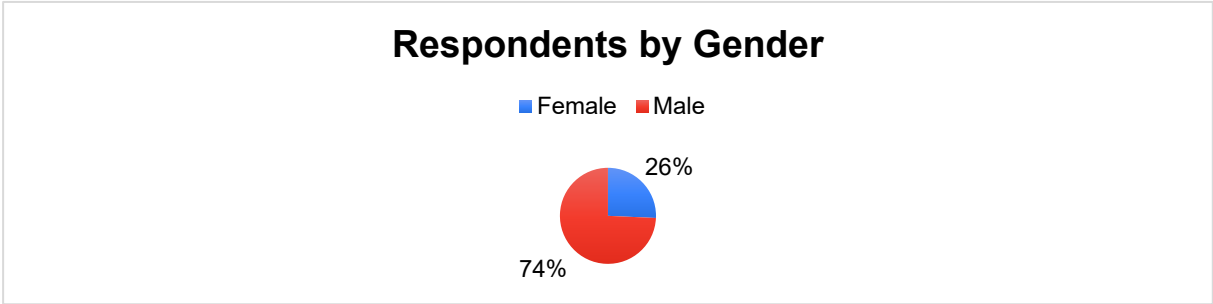


*Figure 3 Respondents by position*

More than half of the respondents (55%) have bachelor’s degree, while the rest is distributed mainly master’s degree (44%) and PhD level (1%) as shown in Figure 4. The responses are dominated by respondents having a higher education, i.e. Bachelor’s degree. This is due to targeting respondents to have certain qualifications and education level since the level of education gives them access to their current positions where they performed global assignments, global leadership practices as specialists, leaders and managers. In terms of gender, most respondents were male, 74% of the total population, as shown in Figure 5.



*Figure 4 Respondents by education*



*Figure 5 Respondents by gender*

### **3.6. Data Analysis**

IBM SPSS 26 and IBM SPSS AMOS 26 software were used for deeper analysis and better understanding of the collected data.

### **3.7. Ethical Considerations**

Considering the research ethics, the participation of the questionnaire was made voluntarily, and respondents were informed about the research purpose and intended use of the collected data (only for academic purposes). Considering anonymity of the respondents, personal details such as respondent's name, age, current organization were not asked in the questionnaire. At the end of the questionnaire, the participants were only asked to provide additional information about their educational background, current position, gender and nationality to get an understanding of the sample population. When asking for gender, additional option Prefer not to say was made possible to select instead of male or female to give respondents to voluntarily share their gender.

### **3.8. Validity and Reliability**

Validity is an important element of a research that indicates measurements are measuring what they are supposed to measure (Bryman & Bell, 2011). As another important element of a research, reliability refers to an extent to which the results can be produced again when the research is repeated under the same conditions. In order to determine and strengthen the validity and reliability of this research, the SEM research is proceeding in two steps: Firstly, the exploratory factor analysis (EFA). The exploratory factor analysis was performed for testing the model and select the variables of the constructs that are significant and remove those which are not. Secondly, the confirmatory factor analysis (CFA) which is testing of the robustness of the model by verifying how much the constructs related to each other's and to explain the global leadership effectiveness. Indicators such as Chi-square statistic and GFI (Goodness of Fit Index) were measured to confirm the model is fit. Those steps were explained in the analysis chapter.

## 4. Analysis

This chapter presents the analysis and results.

### 1.1 Exploratory Factor Analysis

To identify the patterns and underlying relationships among measured variables, Exploratory Factor Analysis (EFA) was performed on the collected dataset by using IBM SPSS 26 software as the first step of the analysis.

Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) was measured for the dataset by removing variables with lower loadings until an acceptable KMO value was reached. According to Kaiser & Michael (1977), a dataset with KMO value greater than 0.8 is characterized as meritorious and it indicates that that factor analysis would be appropriate for the dataset. KMO value of 0.822 was achieved on the selected dataset as shown in Table 1.

<b>KMO and Bartlett's Test</b>		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.822
Bartlett's Test of Sphericity	Approx. Chi-Square	1892.990
	df	171
	Sig.	.000

*Table 1 KMO and Bartlett's Test Results*

The exploratory factor analysis produced results shown on Rotated Component Matrix in Table 2. The variables with the highest loadings and their corresponding factors have been identified by using Rotated Component Matrix. 16 variables marked in yellow have a loading that is greater than or close to 0.76 and load to only one specific factor. As a result, the 16 variables and the 5 factors were selected to be used for the CFA phase as the next step in the analysis.

Rotated Component Matrix					
	Component				
	1	2	3	4	5
G04	.792				
G01	.765				
G02	.744				
W02	.715				
W01	.708			.410	
W05	.599			.485	
G03	.591		.424		
S02		.829			
S04		.814			
S05		.724			
S03		.721			
S01	.427	.656			
O03			.836		
O04			.778		
O05			.728		
W03				.796	
W04				.791	
CF02					.808
CF03					.746

Table 2 Rotated Component Matrix

Kaiser (1960) recommends that components with the Eigenvalues at least equal to or greater than one should be kept in the measurement model. The Scree Plot shown in Figure 6 also confirms that the Eigenvalues of components 6-19 lower than one, meaning that these components could be excluded from the model.

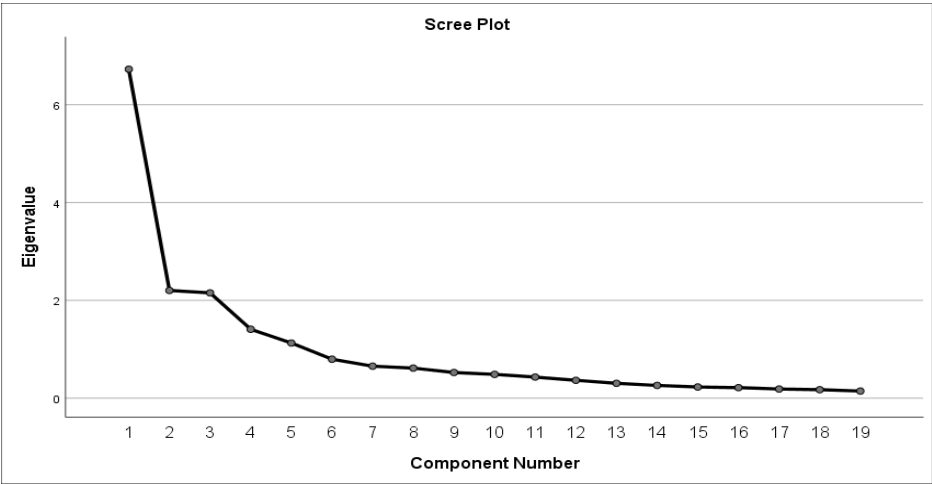


Figure 6 Scree Plot

Furthermore, as shown in Table 3 Total Variance Explained, five factors kept in the measurement model explain more than 74% of the total variance.

Component	Total Variance Explained					
	Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5,338	33,363	33,363	3,106	19,414	19,414
2	2,150	13,437	46,800	2,800	17,498	36,912
3	2,020	12,627	59,427	2,384	14,897	51,809
4	1,339	8,369	67,796	1,952	12,200	64,010
5	1,056	6,601	74,397	1,662	10,387	74,397

Extraction Method: Principal Component Analysis.

Table 3 Total Variance Explained

Furthermore, the total variance that is above 70% of the model confirms a reliable representation of the data sample.

## 1.2 Confirmatory Factor Analysis

The Confirmatory Factor Analysis (CFA) investigates the model fit such as how well the proposed model of the factor structure accounts for the correlations between variables in the selected data set. For the CFA phase, IBM AMOS 26 software was used, and significant time spent on testing combinations of variables based on the data set and all variables from the exploratory factor analysis were kept in the measurement model for CFA. In order to achieve the best model fit, additional steps had been taken to review loading weights and modification indices on the model. The validity of the measurement model was measured with the acceptable levels of goodness-of-fit indicating how well the specified model reproduces covariance matrix among indicators after each change (Hair et al., 2010). This step of the analysis concluded that the measurement model is confirmed by the data.

## 1.3 Structural Equation Modelling

After performing EFA and CFA, SEM is applied by using IBM SPSS AMOS 26 software to further explore the theoretical model and to evaluate the structural relationships between constructs. The Structural Model was developed based on suggested hypotheses in the theory chapter in order to analyze how Cross-Cultural Experience, Cultural Flexibility, Openness and Stress Tolerance are related to the Global Leadership Effectiveness. Alternative structural models were developed by adjusting links between the latent variables and modifying the structural model to explore various possibilities to test suggested hypotheses and to get answers to research question with a good model fit. On the final structural model Cross-Cultural Experience, Cultural Flexibility, Openness and Stress Tolerance constructs were linked to the Global Leadership Effectiveness as shown Figure 7.

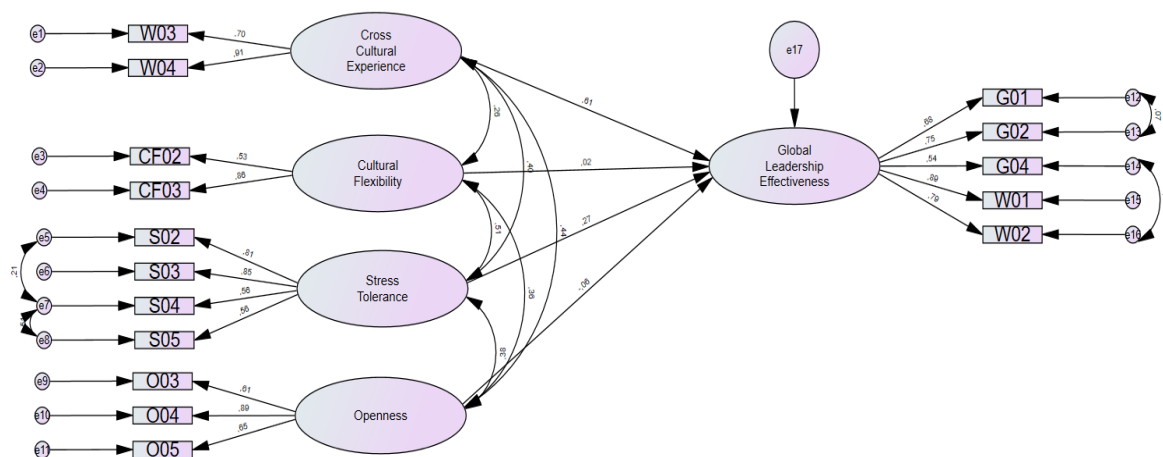


Figure 7 Structural Model

For Cross-Cultural Experience both variables W03 and W04 have loadings more than 0.5 (W03= 0.70, W04=0.91). This shows that both variables are indicator of Cross-Cultural Experience which has a strong impact on the Global Leadership Effectiveness. W03 represents competency to empower multicultural teams to maximize their effectiveness and W04 represents to motivate others to work together in international teams.

For Cultural Flexibility, both variables CF02 and variable CF03 have loading more than 0.5 (CF02= 0.53, CF03=0.86), meaning that both variables are indicator of Cultural Flexibility. However, CF03 is stronger indicator of Cultural Flexibility than CF02. CF03 represents adapting different communication styles according to requirements of people from different cultures. CF02 which has a lower impact on the Cultural Flexibility represents the competency to know how to meet evolving needs and demands of people from different cultures.

For Stress Tolerance, variables S02, S03, S04 and S05 have loadings more than 0.5 (S02=0.81, S03=0.85, S04=0.56, S05=0.56) which shows that all variables are indicators of Stress Tolerance. S02 represents ability to focus under stress, S03 represents knowing how to meet challenges of stressful business situations in an efficient way, S04 represents ability to control emotions under stress and S05 represents ability of a leader to allocate time between meetings, travels and high workloads without getting stressed.

For Openness, all variables have loading more than 0.5 (O03=0.61, O04=0.89, O05= 0.65) which shows that all variables strongly indicate Openness. O03 represents leader's willingness to take risks, O04 represents being open to work in an environment that has different cultures and O05 represents using imagination and creativity to come up with new ideas.

For Global Leadership Effectiveness all variables have loadings 0.5 or greater (G01=0.68, G02=0.75, G04= 0.54, W01=0.89, W02=0.79) which shows that all variables are indicators of Global Leadership Effectiveness. G01 represents ability to successfully develop and execute strategic business plans on a global level, G02 represents having necessary knowledge and skills for latest technologies, G04 represents the competency to manage budgets on a global level, while W01 represents competency to establish cost efficiency in multicultural work environments and W02 represents ability to demonstrate broad business knowledge with multicultural awareness.

Furthermore, according to standardized regression weights, the results showed that Cross-Cultural Experience have a direct positive impact (0.61) on Global Leadership Effectiveness. Therefore, H<sub>1</sub>: “Cross-Cultural Experience is positively related to Global Leadership Effectiveness” is accepted.

Between Cultural Flexibility and Global Leadership Effectiveness, the results showed a very low positive correlation (0.02), meaning that Cultural Flexibility has a positive impact on Global Leadership Effectiveness, however on a minimum level when compared with other identified competencies in the structural model. As a result, H<sub>2</sub>: “Cultural Flexibility is positively related to Global Leadership Effectiveness” is accepted.

Between Openness and Global Leadership Effectiveness, results showed a negative correlation (-0.06) that is close to zero. This means Openness is a part of the global leadership characteristics, but it does not have a positive impact on the Global Leadership Effectiveness, therefore it does not predict the leadership effectiveness. As a result, H<sub>3</sub>: “Openness is positively related to Global Leadership Effectiveness” is rejected.

Between Stress Tolerance and Global Leadership Effectiveness, the results showed a positive correlation (0.27), meaning that H<sub>4</sub> is supported by the model and Stress Tolerance has a positive impact on the Global Leadership Effectiveness. This also shows that compared to Cultural Flexibility, Stress Tolerance has a greater positive impact on the Global Leadership Effectiveness. Therefore, H<sub>4</sub>: “Stress Tolerance is positively related to Global Leadership Effectiveness” is accepted.

Covariances between constructs Cross-Cultural Experience, Cultural Flexibility, Openness and Stress Tolerance had positive regression weights as well as p-values that are zero or close to zero, meaning that there is a strong correlation between the constructs. This means that the model strongly supported H<sub>5</sub>. Therefore H<sub>5</sub>: “Cross-Cultural Experience, Cultural Flexibility, Openness and Stress Tolerance are positively related with each other is accepted.

Furthermore, statistical criterion was applied by using Critical Ratio (C.R.) in order to test loading significance between each path. According to Hox & Bechger (1998), C.R. value greater than 1.96 indicates two-sided significance at the standard 5% level and supports the hypothesis. All covariances between the constructs had C.R values that are greater than 1,96, meaning that the H<sub>5</sub> is strongly supported by the model.



One of the greatest advantages of the SEM method is that it allows researcher to check how well the structural model fits the given data set and checks if the model satisfies the model fit criteria. The Goodness of Fit Index (GFI) of the model indicated a value of 0.794 meaning that it is close to 0.80 as an indication of a good fit (Greenspoon & Saklofske, 1998, Forza & Filippini, 1998). The CFI value of 0.805 showed an acceptable value that is close to 0.90 for a good model fit.

The Root Mean Square Residual (RMSR) value of 0.086 further indicates that the data fit to the model and it is acceptable according to cut off criteria which is less than 0.1 (Greenspoon & Saklofske, 1998).  $\chi^2$  test assesses if the overall model in terms of the discrepancy between covariance matrix and the sample (Hair et.al., 2010). The results of the analysis showed that  $\chi^2$  value computed from the sample is statistically insignificant ( $p$ -value $<0.05$ ) and therefore the model is supported and fits the acceptance criteria (Hair et.al., 2010).

## 5. Discussion & Conclusions

This chapter presents discussion and conclusions of the research, theoretical and managerial implications and recommendations for the further research.

### 1.4 Discussion

Leaders of today have the challenge to lead in a complex, rapidly changing, multicultural context. Leaders in most sectors lead on a global level and they are required to have the necessary competencies to be more effective (Thorn, 2012). Existing literature on global leadership lists several necessary competencies to lead to effectively in a global environment. However, a limited evidence was provided to support the direct relationship between those competencies and the global leadership effectiveness (Osland, 2015). The main research gap addressed in this research was the fact that certain studies have listed global leadership competencies, however, they did not investigate the relation between those competencies and the global leadership effectiveness. As a result, this study aimed to test empirically the relation between identified global leadership competencies and personality characteristics in predicting global leadership effectiveness. Based on the assumption that identified competencies from the existing studies predict global leadership effectiveness five hypotheses were suggested in line with the theory chapter and then tested by using Structural Equation Modelling.

In the analysis conducted, significant correlation was demonstrated between Cross-Cultural Experience and Global Leadership Effectiveness, as well as between Stress Tolerance and Global Leadership Effectiveness. Stress Tolerance is the individual ability to manage stressful situations, insecurities and nervousness in challenging situations. Given the nature of the global environments and individual differences, a leader with a higher stress tolerance could cope with challenging situations with less stress and anxiety and maintaining lower stress levels while interacting with people. Furthermore, as it is mentioned earlier, most scholars mentioned that the leader who can successfully navigate challenging situations have more effective decision-making capability (Harms et.al, 2016). This explains the significant correlation between Stress Tolerance and Global Leadership Effectiveness.

Moreover, Cultural Flexibility can be considered as a soft characteristics of global leader which is also identified as the competency that predict Global Leadership Effectiveness. However, when compared to Cross-Cultural Experience and Stress Tolerance, Cultural Flexibility has a lower positive impact on the global leadership effectiveness. This supports results of previously conducted studies by Kealy (1989) and Cui & Awa (1992) that found out that cross-cultural experience has a positive impact on the cultural adaptability of the leader, however it does not necessarily have a significant impact on the leader effectiveness (Glick, 2002). On the other hand, according to Blaskova (2015), global leaders should be

able to understand cultural differences and able to react on the individual differences as well as should have the ability to response flexibly on different demands, requirements, conflicts and misunderstandings arisen within individuals in global environments. In contrast, results of this study did not show a positive relation between Openness and Global Leadership effectiveness.

Results also revealed that the competency to empower multicultural teams to maximize their effectiveness, as well as the ability to motivate others to work together in international teams are essential competencies that have strong impact on the leadership effectiveness. Jokinen (2005) mentioned that the ability to motivate others and having an entrepreneurial drive are important competencies of global leaders. In addition, ability to successfully develop and execute strategic business plans, having necessary knowledge and skills for latest technologies, competency to manage budgets on a global level, competency to establish cost efficiency in multicultural work environments and ability to demonstrate broad business knowledge with multicultural awareness were also found as the essential competencies that predict global leadership effectiveness. This result is in line with the important competencies identified by Mau (2016) such as having technical and business skills, cultural interest and flexibility. These competencies have a significant impact on the global leadership effectiveness since they are tangible ways to assess leader's success and effectiveness in a global environment. Finally, the results of this study also confirmed the importance of having an ability to focus under stress and control emotions.

As it is mentioned in the Theory Chapter, according to Amagoh (2009), the key roles of an effective leader in a global environment include competencies to establish and strengthen values and organizational goals, to develop strategies and lead changes to ensure organizational growth and competitiveness. This shows that the results of this study and the existing literature supported each other. Caligiuri & Tarique (2009) stated that the leaders with a higher stress tolerance could cope with challenging situations with less stress and anxiety in global environments, as they would be more comfortable leaving their comfort zone and maintaining a low stress levels while interacting with people. This aligns with the identified essential competencies which are ability to focus under stress and ability to control emotions under stress. In addition, the competency to adapt different communication styles according to requirements of people from different cultures, competency to know how to meet evolving needs and demands of people from different cultures, ability to use imagination and creativity to come up with new ideas, willingness to take risks were also found positively related to global leadership effectiveness, however with a slightly lower impact than the competencies that are strongly predicted global leadership effectiveness.

On the existing literature, Cross-Cultural Experience, Cultural Flexibility, Openness and Stress Tolerance were mentioned as the predictors of Global Leadership Effectiveness. However, their impact on the Global Leadership Effectiveness were not clearly mentioned. The results revealed that for the population that took part in this study, Cross-Cultural Experience and Stress Tolerance were identified as the **strong predictors** of Global Leadership Effectiveness, while Cultural Flexibility was found positively related to Global Leadership Effectiveness but with a lower impact. What is meant by “cultural” in the context of global leadership is the cultural differences of individuals in global environments, different demands and requirements of people in international teams, cultural boundaries, individual values and behaviors and cultural requirements of global teams and global assignments. Besides the results regarding the lower positive impact of cultural flexibility, given the cultural diversity of the global organizations, the leaders are required to ensure that they understand personal differences due to cultural differences. Most teams in global environments consist members from different countries and cultures, values and behaviors. Therefore, ability to understand requirements of the team members and ability adapt to their communication styles and knowing how to deal with the changing needs and demands would help leaders to increase their effectiveness when leading in global environments.

On the other hand, Openness was found negatively related to Global Leadership Effectiveness. Even though the impact of Openness was negatively related to leadership effectiveness, this competency could still be kept in mind by global leaders given the nature of global environments and leaders could benefit from being open to exploring new ways of doing things and meeting new people. Previous studies have shown that the leaders who are open and have the ability to deal with complexities are more likely to be efficient when leading in global environments (Lange, 2015). Furthermore, openness will help leaders to learn new things and could lead to creativity and innovation that is needed for leaders to solve problems in a global environment (Bonsu & Twum-Danso, 2018).

## 1.5 Conclusions

In this research, the essential competencies for global leadership effectiveness have been investigated. The purpose of this research was to identify the essential competencies for effective leadership in a global environment. To meet the research purpose, following research question was formulated:

*What are the essential competencies for effective leadership in a global environment?*

The purpose of the research has been fulfilled by first identifying competencies for global leadership effectiveness on the existing literature. Cross-Cultural Experience, Cultural Flexibility, Openness, Stress Tolerance were identified as the essential competencies and personality characteristics that are related to global leadership effectiveness. To further investigate the relationship between these competencies

and the global leadership effectiveness five hypotheses were developed based on the theory. The theoretical model was developed and evaluated by using Structural Equation Modelling (SEM) as the research method. The data was collected from a questionnaire of 175 respondents worldwide, mainly located in Europe.

Out of five hypotheses created, the statistics provided strong support to H<sub>1</sub>, H<sub>4</sub> and to H<sub>5</sub>. Furthermore, the model also confirmed a strong relation between Cross-Cultural Experience and Global Leadership Effectiveness, as well as Stress Tolerance and Global Leadership Effectiveness. The results also showed that Cross-Cultural Experience has the most impact on the Global Leadership Effectiveness. Among the remaining two hypotheses, H<sub>2</sub> is also confirmed by the model, however indicating that Cultural Flexibility has positive but lower impact on the Global Leadership Effectiveness. Due to the negative relation between Openness and Global Leadership Effectiveness H<sub>4</sub> is rejected. Finally, the model also showed that there is a positive correlation between Cross-Cultural Experience, Cultural Flexibility, Stress Tolerance and Openness that confirmed H<sub>5</sub>. As a result of the study, the research question is answered as follows:

The competency to successfully develop and execute strategic business plans on a global level, having necessary knowledge and skills for latest technologies, competency to manage budgets on a global level, competency to establish cost efficiency in multicultural work environments and ability to demonstrate broad business knowledge with multicultural awareness are essential competencies for global leadership effectiveness. Ability to empower multicultural teams to maximize the effectiveness and the ability to motivate others to work together in international teams are essential competencies for Cross-Cultural Experience which is a significant impact on the Global Leadership Effectiveness.

Ability to meet evolving needs and demands of people from different cultures, as well as ability to adapt different communication styles according to different requirements of people from different cultures are essential competencies for Cultural Flexibility, which has a positive but low impact on the Global Leadership Effectiveness. The ability to maintain focus under stress, having a competency to know how to meet challenges of stressful business situations in an efficient way, ability to control emotions under stress as well as ability to allocate time between meetings, travels and high workloads without getting stressed are identified as essential competencies for Stress Tolerance which has a significant impact on the Global leadership Effectiveness.

All the identified competencies are also found to positively related to each other meaning that the greater the leader have each essential competency, the greater the leadership effectiveness will be when leading in global environments. The essential competencies will contribute the success of the leader in

influencing followers towards the achievement of organizational goals, as well as enable the leader to be more effective when leading in global environments.

## **1.6 Theoretical and Managerial Implications**

The results of this research have both theoretical and managerial implications. Firstly, this research proved empirically and quantitatively the relationship between certain essential competencies and global leadership effectiveness. Secondly, the results of the research contribute to the existing literature where there is a limited amount of research that focus on understanding global leadership competencies and their connection to leadership effectiveness. Finally, this report acts a guide for leaders who work in a global environment and provides them knowledge about essential competencies that predict global leadership effectiveness.

## **1.7 Limitations**

Considering the sample size of the study and the population, larger sample size from an additional population that consists individuals from different nationalities, industries and business areas could increase the accuracy of the findings.

## **1.8 Recommendations for Further Research**

As the further research, number of respondents for the questionnaire could be increased, and the population could be divided into several sub-populations based on respondents' business areas, roles and leadership experience level, as well as their nationalities. In addition, scope of the research could be extended by identifying additional competencies and personality characteristics on the literature to be further tested by using the same research method.

## 6. Bibliography

Adler, N.J. (2002). *International dimensions of organizational behaviour*, Thompson Learning, Mason.

Amagoh, F. (2009), "Leadership development and leadership effectiveness", *Management Decision*, Vol. 47 No. 6, pp. 989-999

Amir, Y. (1969). Contact hypothesis in ethnic relations. *Psychological Bulletin*, 71: 319–342.

Ann M. Herd, Meera Alagaraja & Denise M. Cumberland (2016) Assessing global leadership competencies: the critical role of assessment centre methodology, *Human Resource Development International*, 19:1, 27-43

Arthur, W., Jr., & Bennett, W., Jr. (1995). The international assignee: The relative importance of factors perceived to contribute to success. *Personnel Psychology*, 48: 99–114.

Bandura A. (1977). *Social learning theory*. NJ: Prentice Hall.

Barrick, M., & Mount, M. (1991). The big five personality dimensions and job performance: a meta-analysis, *Personnel Psychology*, vol. 44, no. 1, pp. 1-26.

Bartlett, C. A., Ghoshal S. (1992). *Transnational Management. Text, Cases, and Readings in Cross-Border Management*". Irwin

Beechler, S., Javidan, M. (2007). *Leading with a Global Mindset. Advances in International Management*, Vol 19, Elsevier, pp. 131-170.

Black, S., Morrison, A., & Gregersen, H. (1999). *Global explorers: The next generation of leaders*. New York: Routledge

Black, S. (1990). The relationship of personal characteristics with the adjustment of Japanese. *Management International Review*, 30: 119–134.

Blaskova, M. (2015). *Tolerance and Flexibility as Crucial Competences of Multicultural Team Leader*.

- Bonsu, S., & Twum-Danso, E. (2018). Leadership style in the global economy: A focus on cross-cultural and transformational leadership. *Journal of Marketing and Management*, 9(2), 37-52.
- Browne, M.W., Cudeck, R. (1989). Single sample cross-validation indices for covariance structures. *Multivariate Behavioral Research*, 24, 445-455.
- Browne, M.W., Cudeck, R. (1993). Alternative ways of assessing model fit. In K.A. Bollen, J.S.Long (Eds), *Testing structural equation models* (136 – 162). Newbury Park, CA: Sage.
- Brownell J (2006) Meeting the competency needs of global leaders. *Human Resource Management* 45(3): 309–336
- Bryman, A., Bell, E. (2011). *Business Research Methods*, 2nd edition. Oxford University Press Inc.
- Canals, J. (2014). Global leadership development, strategic alignment and CEOs commitment. *The Journal of Management Development*, 33(5), 487-502.
- Caligiuri, Paula. Di Santo, Victoria. (2001). Global Competence: What Is It, and Can It Be Developed Through Global Assignments? *Human Resource Planning*. 24. 27-35.
- Caligiuri, P. M. (1997). Assessing expatriate success: Beyond just “being there”. In Aycan, Z. (Ed.). *Expatriate Management: Theory and Practice* (Vol. 4,). Greenwich, CT: JAI Press.
- Caligiuri, P. (2000). Selecting expatriates for personality characteristics: A moderating effect of personality on the relationship between host national contact and cross-cultural adjustment. *Management International Review*, 40: 61–81.
- Caligiuri, P. (2004). Global leadership development through expatriate assignments and other international experiences. Paper presented Symposium: *Expatriate Management: New Directions and Pertinent Issues*. New Orleans: Academy of Management.
- Caligiuri, P. (2006). Developing global leaders. *Human Resource Management Review*, 16(2), 219–228.



Caligiuri, P., Tarique, I. (2009). Predicting effectiveness in global leadership activities. *Journal of World Business*, 44: 336–346.

Caligiuri, P., Tarique, I. (2012). Dynamic cross-cultural competencies and global leadership effectiveness. *Journal of World Business*. 47. 612–622.

Caligiuri, P., Mencia, A., Jayne, B., & Traylor, A. (2019). Developing cross-cultural competencies through international corporate volunteerism. *Journal of World Business*, 54(1), 14-23.

Chau, P.Y.C., Hu, P.J-H. (2001). Information technology acceptance by individual professionals: a model comparison approach. *Decision sciences*, 32(4), 699-719.

Conner, J. (2000), “Developing global leaders of tomorrow”, *Human Resource Management*, Vol. 39 Nos. 2/3, pp. 147-57.

Costa, P., McCrae, R. (1992). Normal personality assessment in clinical practice: The NEO Personality Inventory. *Psychological Assessment*, 4 : 5–13.

Cui, G., & Awa, N. E. (1992). Measuring intercultural effectiveness: An integrative approach. *International Journal of Intercultural Relations*, 16(3), 311–328

Dalton, M., Ernst, C., Deal, J., et Leslie, J. (2002). *Success for the new global manager: How to work across distances, countries, and cultures*. San Francisco, CA: Jossey-Bass.

Forza, C., & Filippini, R. (1998). TQM impact on quality conformance and customer satisfaction: A causal model. *International Journal of Production Economics*, 55(1), 1-20.

Glick, N. D. (2002). The Relationship between Cross Cultural Experience and Training, and Leader Effectiveness in the US Foreign Service. *International Journal of Cross-Cultural Management*, 2(3), 339–356.

Goldsmith, M., Greenberg, C. L., Robertson, A., & Hu-Chan, M. (2003). *Global leadership: The next generation*. New Jersey, NJ: Pearson FT Press

- Greenspoon, P. J., & Saklofske, D. H. (1998). Confirmatory factor analysis of the multidimensional students' life satisfaction scale. *Personality and Individual Differences*, 25(5), 965-971.
- Gupta, A., Govindarajan, V. (2002). Cultivating a global mindset. *The Academy of Management Executive*, 16: 116–126.
- Hajro, A., & Pudelko, M. (2010). An analysis of core-competences of successful multinational team leaders. *International Journal of Cross-Cultural Management*, 10(2): 175–194.
- Hair, J.F., Black, W.C., Babin, B.J., & Anderson, R.E. (2010). *Multivariate Data Analysis*. Seventh Edition. Prentice Hall, Upper Saddle River, New Jersey.
- Hao, Moo & Yazdanifard, Rashad. (2015). How Effective Leadership can facilitate change in Organizations through Improvement and Innovation. *Global Journal of Management and Business Research (A)*. 15. 1-6.
- Harms, P. D., Credé, M., Tynan, M., Leon, M., & Jeung, W. (2017). Leadership and stress: A meta-analytic review. *The Leadership Quarterly*, 28(1), 178–194.
- Harkness, J. A., van de Vijver, F. J. R., & Johnson, T. P. (2003). Questionnaire design in comparative research in J. A. Harkness, F. J. R. van de Vijver, & P. M. Mohler (Eds.), *Cross-cultural survey methods*.
- Hassanzadeh, M., Silong, A., Asmuni, A., Wahiza, N. (2015). Global Leadership and Diversity. *Journal of Educational and Social Research*. 5. 161.
- Hox, J., Bechger, T. (1998), 'An introduction to structural equation modelling', *Family Science Review* 11, 354–373.
- Hoyle, R. H. (1995). *Structural equation modelling: Concepts, issues, and applications*. Sage.
- Jokinen, T. (2005). Global leadership competencies: a review and discussion, *Journal of European Industrial Training*, Vol.29, No.3, pp.199-213.
- Judge, T. A., Bono, J. E., Ilies, R., & Gerhardt, M. W. (2002). Personality and leadership: A qualitative and quantitative review. *Journal of Applied Psychology*, 87(4), 765–780.

- Kaiser, H. F. (1960), 'The application of electronic computers to factor analysis', *Educational and Psychological Measurement* 20(1), 141–151.
- Kaiser, H. F. & Michael, W. B. (1977), 'Little jiffy factor scores and domain validities', *Educational and Psychological Measurement* 37(2), 363–365.
- Kayes, D. C., Kayes, A. B., & Yamazaki, Y. (2005). Essential competencies for cross-cultural knowledge absorption. *Journal of Managerial Psychology*, 20: 578–589.
- Kealey, D.J. (1989). A study of cross-cultural effectiveness: Theoretical issues, practical applications. *International Journal of Intercultural Relations*, 13, 387-428.
- Kets de Vries, M.F.R. & Florent-Treacy, E. (2002), "Global leadership from A to Z: creating high commitment organizations", *Organizational Dynamics*, Vol. 295 No. 309, pp. 1-16.
- Lange, Silma E., "Global Leadership Effectiveness: The Predictive Value of Cognitively Oriented Competencies" (2015). Master's Theses. 4549
- Magala, S. (2005). *Cross-cultural Competence*. London: Routledge.
- Marsh, H. W. Hocevar, D. (1985). Application of confirmatory factor analysis to the study of self-concept: First- and higher order factor models and their invariance across groups. *Psychological Bulletin*, 97, 562–582.
- Maznevski, M. L., DiStefano, J. J. (2000). Global leaders are team players: Developing global leaders through membership on global teams. *Human Resource Management*, 39: 195–208.
- Mau, T. A. (2016). Leadership competencies for a global public service. *International Review of Administrative Sciences*, 83(1), 3-22.
- Madanchian, M. and Hussein, N. and Noordin, F. and Taherdoost, H. (2017) Leadership Effectiveness Measurement and Its Effect on Organization Outcomes
- Mendenhall, M., Oddou, G. (1985). The dimensions of expatriate acculturation: A review. *Academy of Management Review*, 10: 39–47.

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

Moran, R.T. and Riesenberger, J.R. (1994), *The Global Challenge: Building the New Worldwide Enterprise*, McGraw-Hill Book Company, London

Morrison, A. (2000). Developing a global leadership model. *Human Resource Management*, 39: 117–131.

Osland, J. S. (2015). Introducing global leadership: Laying the groundwork for women as global leaders. In F. Ngunjiri & S. Madsen (Eds.), *Women as global leaders*. Charlotte, NC: Information Age Publishing.

Prince, D. W., & Deal, J. J. (2018). *Developing cultural adaptability: How to work across differences* Center for Creative Leadership.

Schneider, S., Barsoux, J-L. (2003). *Managing across Cultures*. Harlow, England: Financial Times Prentice Hall.

Schuetz, A. (2017). Effective leadership and its impact on an Organization’s success. *Journal of Corporate Responsibility and Leadership*, 3(3), 73-90.

Shaffer, M., Harrison, D., Gregersen, H., & Black, S. (2006). You can take it with you: Individual differences and expatriate effectiveness. *Journal of Applied Psychology*, 91: 109–125.

Sonmez Cakir, F., & Adiguzel, Z. (2020). Analysis of leader effectiveness in organization and knowledge sharing behavior on employees and organization. *SAGE Open*, 10(1).

Steven Terrell, R., & Rosenbusch, K. (2013). How global leaders develop. *The Journal of Management Development*, 32(10), 1056-1079

Sun, P., Shang, S. (2019). Personality traits and personal values of servant leaders. *Leadership & Organization Development Journal*, 40(2), 177-192

Terrell, S., & Rosenbusch, K. (2013). Global leadership development: What global organizations can do to reduce leadership risk, increase speed to competence, and build global leadership muscle. *People & Strategy: Journal of the Human Resource Planning Society*, 36(1), 40.

Thorn, I. M. (2012). Leadership in international organizations: Global leadership competencies. *The Psychologist Manager Journal*, 15(3), 158-163.

Vogelgesang, G., Clapp-Smith, R., & Osland, J. (2014). The Relationship Between Positive Psychological Capital and Global Mindset in the Context of Global Leadership. *Journal of Leadership & Organizational Studies*, 21(2), 165–178.

Wang, J., Wang, X. (2012). *Structural equation modelling: Applications using mplus* (3. Aufl.;1; ed.). Somerset: Wiley.

Yoon, D., & Han, S. (2018). global leadership competencies and knowledge transfer in Korean multinational corporations: Self-efficacy as a moderator. *Social Behavior and Personality*, 46(7), 1143-1156.

## 7. Appendix

### The Questionnaire

(Likert scale 1-5)

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
1	2	3	4	5

No	Question	Measure
CF01	I understand that people from other cultures do not necessarily have same values and views as people from my culture.	Cultural Flexibility
CF02	I know how to meet evolving needs and demands of people from different cultures.	Cultural Flexibility
CF03	I adapt different communication styles according to requirements of people from different cultures.	Cultural Flexibility
CF04	I adapt easily to foreign locations and new cultural environments.	Cultural Flexibility
CF05	I help others to cope with changes in new cultural environments.	Cultural Flexibility
O01	I avoid stereotypes and keep an open attitude towards new people.	Openness
O02	I am open to learn new ways of working.	Openness
O03	I am willing to take risks.	Openness
O04	I am open to work in an environment that has different culture than my current one	Openness
O05	I enjoy using my imagination and creativity to come up with new ideas.	Openness
S01	I maintain my ability to lead people under stress.	Stress Tolerance
S02	I maintain my ability to focus on my work under stress.	Stress Tolerance
S03	I know how to meet challenges of stressful business situations in an efficient way.	Stress Tolerance
S04	I can control my emotions under stress.	Stress Tolerance
S05	I can allocate my time between meetings, travels and high workloads without getting stressed.	Stress Tolerance
W01	I have a competency to establish cost efficiency in multicultural work environments.	Cross-Cultural Experience
W02	I demonstrate broad business knowledge with multicultural awareness.	Cross-Cultural Experience
W03	I empower multicultural teams to maximize their effectiveness.	Cross-Cultural Experience
W04	I motivate others to work together in international teams.	Cross-Cultural Experience

W05	I manage group dynamics when conflict arises.	Cross-Cultural Experience
G01	I can successfully develop and execute strategic business plans on a global level.	Global Leadership Effectiveness
G02	I have necessary knowledge and skills for latest technologies.	Global Leadership Effectiveness
G03	I have necessary skills to communicate effectively on a global level.	Global Leadership Effectiveness
G04	I have a competence to manage budgets on a global level.	Global Leadership Effectiveness
G05	I recognize that an efficient leader can deliver growth in highly complex contexts.	Global Leadership Effectiveness

<b>Additional Questions</b>	<b>Measure</b>
What is your education level?	Please Select: Bachelor, Master, PhD, Other
What is your current position?	Please Select: Entry-level, Specialist, Manager, Director, Other
What is your gender?	Please Select: Male, Female, Prefer not to say
Which country are you from?	Please Specify