Deploying Best Practices in Unfamiliar Countries

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Thesis submitted to the faculty of the Virginia Polytechnic Institute and State University
in partial fulfillment of the requirements for the degree of

Master of Science

In

Civil Engineering

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August 9th, 2013

Blacksburg, VA

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ABSTRACT

This research developed a process to improve the systematic deployment of best practices in unfamiliar countries in response to rapid globalization in the engineering and construction industry. The engineering and construction industry needs processes, metrics and tools to improve the deployment of best practices in unfamiliar countries to help facilitate project success, as new challenges are encountered.

The research identified issues that are commonly encountered when deploying best practices in unfamiliar countries. The issues were identified using content analysis and verified by experts using the Delphi Method. The Analytic Hierarchy Process was used to establish weightings for the importance of each issue. The weightings were then used to create a scoring metric for companies to measure their readiness for projects.

In order to overcome the issues identified in the research, a series of processes and mitigation strategies to overcome the issues were developed, through a series of interviews and focus groups.

The International Readiness Passport (IRP) is a tool created to support the use of the metric and the mitigation strategies. This tool utilizes a self-scoring section which is applied to the metric. The tool then generates a report with the relevant mitigation strategies related to each issue, based on the score.

To ensure that the IRP provides a meaningful benefit to the systematic deployment of best practices in unfamiliar countries, it was validated through a series of retrospective tests. These tests have confirmed the accuracy and relevance of the process, metric, and tool, as well as the tool's   capabilities.

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1 Introduction

The construction industry has been rapidly globalizing. As companies seek to compete in this rapidly changing market place, they need tools and resources to help them succeed. The globalization of the engineering and construction industry has caused new challenges as companies enter countries that are unfamiliar to them. While companies may have well established practices for how to achieve their project goals in familiar markets, these best practices may or may not lead to successful outcomes in an unfamiliar country. For example, if cultural barriers between expatriate project teams and local project partners cause conflicts, it can impact best practice deployment in a manner that negatively impacts project performance. If such differences exist, it becomes necessary for companies to have procedures to overcome these differences. While there are currently many resources for the domestic implementation of specific best practices that are produced by various organizations, there is a lack of a comprehensive resource that can be used to adapt those best practices for use in an unfamiliar country. Patterns of growth in the industry point to further globalization, while currently available tools and resources are limited in the scope of what they do to support a company's efforts. This has created of a need for the development a comprehensive resource to assist companies.

1.1 Background

Over the last decade, the construction industry has been rapidly changing. In this change, companies are globalizing as they seek to access new markets. Current trends are such that global construction industry growth may reach 11% in 2013 (Zilke and Taylor 2013), and this is projected to continue to grow.

The Construction Industry Institute (CII) has recognized these trends and has made it central to their mission and their goals. As part of this incorporation into their goals, CII established RT263 to help member organizations create a globalization strategy. As companies look to compete on a global level they needed a resource to help them identify tactics that will allow them to globalize (Comu et. al. 2012).

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1.2 Literature Review

Previous CII research provided many resources for the implementation of their defined best practices (Implementation Strategy Committee 2011). Each of the CII best practices is published with implementation resources that can aid in their implementation and the "Barriers to Implementation" report outlines barriers which are commonly encountered when deploying best practices (Smith 1995). Other CII resources include Competing in the Global Market which focuses on how alliances can benefit companies seeking to do international work (Force 1993). The "Project Definition Rating Index" (PDRI) originally developed as part of RT113 provides technical guidance for project planning but not cultural guidance for adapting those best practices for various environments. The PDRI provides a tool in which the users can input readiness for various points relevant to the project planning process (CII IR113-2). The work of RT263 looked at the market factors that impact the success of global engineering companies, and created the G-SAT for a company to establish a globalization strategy (Comu et al 2012). However, the G-SAT looks at globalization on a company level rather than at individual project success. What the current CII literature lacks are resources that help companies translate the best practices that they currently implement, into a form that is suitable for an international project, specifically in an unfamiliar country.

Some companies and organizations have internal resources to support their international goals. One example of this is the US Department of State which provides a set of guidelines for internal use. These documents, the Project Development Surveys (PDS), are lists of questions that review different sections of the project's development phases for the construction of a New Embassy Compound. The first of the PDS documents is the "Legal Counsel Business Assessment" which compiles relevant regulatory information[1]. The second PDS document, "Local Post Administration Assessment," provides an assessment of the local market conditions[2]. The third, "Architectural and Engineering Assessments," considers issues that are specific to the location

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[1] "Project Development Survey Part I: Legal Counsel Business Assessment ", U. S. Department of State, ed. (2009)., Provided by RT294 Member Phil Barth

[2] "Project Development Survey Part II: Local Post Administration Assessment ", U. S. Department of State, ed. (2009)., Provided by RT294 Member Phil Barth

and design of the project[3]. The PDS documents provide a resource for gathering information but do not provide guidelines on how to apply the gathered information to deploy best practices.

The Central Intelligence Agency (CIA) of the United States publishes and maintains the CIA World Factbook. This resource provides information on each country, such as, the history, the government and political issues, the economic status, communications and transportation developmental status, and the people of the country (Central Intelligence Agency 2013). However, while this is a reliable and current resource about countries it does not provide any guidance for how it can be used or applied to the activities of businesses.

Business without Borders[SM] is an online resource sponsored by HSBC which provides general information on doing businesses in a variety of countries (HSBC 2013a). In addition, part of this online resource is the Country Guides which are published in conjunction with PwC. The documents "PwC Country Guide: Doing Business in…" are available to their customers and the members of Business without Borders and provide detailed information on considerations for doing business in a specific country (HSBC 2013b). Currently guides are not available for every country, however, they exist for twenty one countries including, India, Argentina and France. These guides also only describe how business works in that specific country and do not help to identify the differences in a project team's methods and local customs to establish readiness. These guides also do not address issues specific to the construction industry.

The work of Geert Hofstede compares cultures and provides recommendations on working with the differences in cultures when entering an unfamiliar country (Hofstede 2012). Hofstede has identified several cultural dimensions, which can be compared through numerical indices assigned to each nation. These indices include the Power Distance Index (PDI) which considers hierarchical relationships, and the Uncertainty Avoidance Index, which is has to do with how comfortable people are with risk, among others indices (Hofstede 2012). Some guidance is provided on how to work with different cultures depending on the relationship between the scores of the countries (Hofstede and Hofstede 2005). Guidance provided by Hofstede for the

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[3] "Project Development Survey Part III: Architectural and Engineering Assessment ", U. S. Department of State, ed. (2009)., Provided by RT294 Member Phil Barth

power distance index includes high level strategies, such as; if you are going to a country with a higher PDI then you should provide clear and structured direction, while if going to a country with a lower PDI one should expect less formal structure within organizations (Hofstede 2012). While these are helpful guidelines, they need to be extended to apply to the deployment of construction best practices.

From the resources which are currently available to companies and project teams seeking to do work abroad, most are general knowledge resources about a local culture or resources on best practice implementation. These resources do not provide a way to assess a company's preparation or provide recommendations on how to adapt their best practices to facilitate success in unfamiliar countries. What is needed to fill this gap is a comprehensive metric and process for the industry which can measure readiness and provide solutions to create readiness for companies seeking to do work in unfamiliar countries.

2   Research Objectives

CII tasked Research Team 294 with developing a process to systematically deploy best practices in unfamiliar countries, in order to answer the essential question "How do we systematically deploy best practices to achieve successful project results in areas of the world where we have no previous professional or cultural experience?" (Construction Industry Institute 2011). The process requested was intended to be applicable to any best practice in any country. Globalization has become a central strategic focus within CII and its member companies, as such, this team was charged with creating a systematic process, concrete metric, and a tool that will meaningfully impact the success of best practice deployment and, by extension, improve the likelihood of success for global expansion and execution of CII member companies' strategic objectives (e.g. company expansion, capital projects, etc.).

In order to direct the outcome of RT294 three (3) key terms were identified to focus their efforts:

- "Systematically" – Characterized by a framework that is consistently executed using an orderly and methodological set of procedures
- "Deploy" - To position a company in readiness to implement best practices
- "Unfamiliar Country" - A location/environment where a company has not conducted a particular business activity recently and/or where the company does not fully understand the risks associated with that location.

2.1   Purpose & Objectives

CII tasked RT294 with creating a metric to measure the readiness of companies to do work in countries in which a project team or company has limited experience, and then creating a process to help users overcome the weaknesses identified. The metric and process developed were directed to be structured in a generic manner in which they would applicable to any company, from any country going to work in any other country.

The research identified the issues that are commonly encountered when seeking to do work in an unfamiliar country. From these a metric was developed to establish the impact of each of the issues on the readiness of a company to deploy in an unfamiliar country. For each of the

identified issues a process for overcoming the issue was developed to help companies improve their chances of success.

The metric and processes which were developed have been combined into a user friendly tool which guides organizations through their preparations and entry to an unfamiliar country. This tool will provide project level guidance by providing a numeric metric to predict a company's success when entering an unfamiliar country. The tool will then provide processes and guidance to help a company correct issues that may limit their success. The tool created by RT294 will serve CII member companies as;

- a way to create readiness to estimate and bid in an unfamiliar country, and for companies to determine if they are ready to do so;
- an input for an execution plan to make a project team ready for a project in an unfamiliar country, and;
- a way to facilitate gap analysis and potential solutions for readiness preparations.

2.2   Scope Limitations

The work of RT294 assumes that users of the processes, metric, and tool already have an understanding of the systematic deployment of best practices domestically and have internal process that facilitate successful implementation in place for projects in familiar locations. Users of the produced resource should also understand that while the processes, metric and tool are intended to help make projects successful, they do not replace proper due diligence in project preparations.

Users of the provided resources should also understand that the resources were developed to adapt to any best practice within any country. Therefore, the resources are general in nature and the specific needs of a project should be considered as the resources are applied.

3   Methodology

One of the tasks of the RT294 was to establish a metric by which a company or project team's readiness can be measured. In order to do so the Delphi Method was used to identify the points on which a project would be scored. After the identification of the point of the readiness, they were categorized and then weighted through the usage of the Analytic Hierarchy Process (AHP). The results of the Delphi Method were also used to establish a weighting that describes the uniqueness of the points by which the project is being measured. While the items identified may be important to the successful deployment of best practices in unfamiliar countries, it does not also mean that they are unique to international projects.

3.1   The Delphi Method

The first step to creating the metric was to establish what the common barriers to the successful international deployment of best practices are. For this, it was decided to use the Delphi Method which is a consensus based methodology that uses a series of surveys to bring experts to consensus about a topic.

3.1.1   Background on the Delphi Method

The Delphi Method has been established as a way to determine the collective opinion of a group of experts on a topic. It was originally developed by the Rand Corporation in the 1950's in order to forecast military technological developments (Cuhls 2004). For the construction industry, where no two projects are alike, the Delphi Method is beneficial as it uses the opinions of experts to generate collectively what is the best answer to a posed question. A Delphi Study can often become too broad and lose focus from the original purpose, which led to usage of a Modified Delphi Method for this research. The Modified Delphi Method is as a version of Delphi in which this first round starts with a pre-existing set of issues, rather than an open ended question about a topic (Keeney et al. 2011). The modified Delphi methodology described below was also presented and published separately as part of the Canadian Society of Civil Engineers 2013 annual conference (Horsey et al. 2013).

3.1.2 The Use of Content Analysis

As described previously, the traditional Delphi Method uses an open ended question for the initial round of the survey process. However, the open ended approach can lead to broad and unfocused responses due to its unstructured nature. The unfocused responses can be problematic if the responses do not fit the needs of the research. This has popularized the usage of the Modified Delphi Method where the researchers create a set of initial questions for the first round in order to ensure that the responses and topics to be discussed in the surveys will meet the needs of the research (Keeney et. al 2011). In order to provide a rigorous approach to the modified Delphi Method content analysis was used to create a starting list of issues or barriers to successful deployment for our study.

Content analysis is a systematic approach to analyzing data sources for information. A researcher analyzes a group of sources to develop a list of recurring themes or items relevant to the context in which they are presented (Krippendorff 2004). This analysis of existing subject matter leads to a more focused method for identifying relevant information in a subject area allowing the researcher to ensure the survey will be compatible with their research goals.

By using content analysis, the topics to be discussed in a Modified Delphi Study can be supported by a selection of credible sources in their validity and the list can be recreated from the sources, rather than a researcher developing the questions on his or her own. Sources that may be used include academic papers, industry journals, internal company reports, focus groups, and interviews, amongst others. Content analysis is an established method for analyzing the information and themes within a source of information (Krippendorff 2004). The use of content analysis is straightforward, by analyzing a source with a specific goal content pieces can be extracted. The pieces can be further organized according to trends and themes within the collection of content pieces. The identified themes can be refined into the list of issue for use in the first round of the Delphi Study to identify issues to successful deployment of best practice in unfamiliar countries.

Several key characteristics should be inherent in a content analysis for the Modified Delphi Method. The first of which is that the content analysis should be pragmatic, or include the

context of the content piece in the analysis (Krippendorff 2004), which is important for Construction Engineering and Management (CEM) research as to ensure that the projects to which the content is referring are within the scope of the research topic. Convenience sampling where sources that are readily accessible and known to contain relevant content pieces can be used as the starting point for the content analysis (Krippendorff 2004). To ensure an adequate sample size the "Split Half Technique" is appropriate; this is where the sample size is considered large enough that you can split the content pieces in half and achieve similar results from both halves (Krippendorff 2004). This technique can be more beneficial than using all of the sources, as it saves the researcher time while generating the same outcome.

Another benefit of this method is the overall reduction in time needed to complete the study. By eliminating the traditional first round of the Delphi Method, the study length can often be shortened by at least one additional round. Since the Modified Delphi using content analysis is more focused, it can also provide the opportunity for a shorter study as there will be less time eliminating items that are not relevant to the topic. By identifying a list of items that is already relevant to deployment of best practices, the focus can be more about how important the items are, rather than in the identification of the issues themselves.

3.1.3   Expert Selection

The selection of experts is a critical component of the Delphi Method. It is difficult to ensure that the experts meet the needs of the study without the criteria being too specific, causing sampling bias (Hallowell and Gambatese 2009). This is an issue when using academic credentials as a way of determining expertise in the construction industry. Criteria for expert selection should be based on experience in areas relevant to the research topic. For the construction industry where experience is often valued more than education (Rosenbaum et al. 2001), ensuring experience on multiple relevant projects is a strong indicator of expertise. For the Delphi Study conducted in the research project, the following criteria needed to be met. The experts were defined as individuals that:

1. Have at least ten years of experience managing projects or programs;
2. Have at least five years of that experience managing international projects or programs;
3. Have experience working internationally for at least one year;

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4. Have experience working in at least three countries; and
5. Have experience with at least three of the five phases of a project lifecycle.

The criteria were chosen to ensure enough experience in the industry while also validating that their expertise contains significant experience working abroad.

3.1.4   Rounds of the Delphi Study

The Modified Delphi Method starts with the list of the predetermined issues resulting from the content analysis. However, each issue must be repeated until the experts reach consensus, or be rejected after three rounds, when diminishing returns from further rounds stop the study after three rounds (Hallowell and Gambatese 2009). Each issue is presented to the experts during a given round and the experts are asked to rate the each of the issues on a six-point Likert scale that ranges from strongly disagree to strongly agree, as follows:

1-Strongly Disagree
2-Disagree
3-Somewhat Disagree
4-Somewhat Agree
5-Agree
6-Strongly Agree

A six-point scale was used instead of a five point scale to force participants to decide one way or another on each issue.

The experts needed to respond to two questions regarding each issue, describing the importance and the uniqueness of the issues presented. They were also asked explain why they responded the way that they did for each issue.

In the subsequent rounds of the study when the issues were revisited, the experts were provided with aggregated information about how the other experts responded and the comments that were given, in an anonymous format. This allowed the experts to see how others responded with the intent of bringing them closer to consensus. Anonymity is an important aspect of the process, by making the surveys anonymous the participants are free to respond as they see fit, without direct pressure to conform (Skulmoski et al. 2007). Feedback is provided to participants about the

responses from the previous round; participants are then asked to consider the feedback when making their selection, the idea is that the feedback will influence the participants when making their selection in the new survey round (Cuhls 2004). The influence of the feedback is intended to increase consensus amongst the experts, until a consensus is reached. The rounds continue until all of the issues are either accepted or rejected in the study.

3.1.5   Stopping Criteria for Issues

Within the Delphi Method, analysis focuses on determining if consensus has been reached by the group. Achieving consensus on an issue is to consider the discussion on that issue complete; therefore, it is no longer necessary to include the issue in the subsequent rounds of the study. If a group reaches a majority opinion or consensus on an issue, it can be terminated (Dajani et al. 1979).

The mode is an appropriate way of determining what the overall response of the group is. It is a more appropriate parameter, compared to the arithmetic mean, as response consistency is sought. In the Delphi Study we conducted as part of this project, participants chose from a set of responses on a six-point Likert scale which ranged from Strongly Disagree to Strongly Agree. These responses were converted to numeric representations to simplify the analysis. However, these numbers are arbitrary and lack a defined value. Due to the arbitrary nature of the numbers, the mode acts as a better representation of the group's response rather than an arithmetic average. The mode describes the most common answer rather than attempting to attribute values to responses.

A combination of the mode and the standard deviation can be used to create the stopping criteria for issues within the Delphi Study. Standard deviation indicates the spread of the responses about the mean which makes it ideal for determining consensus. The smaller the standard deviation the more closely grouped the responses are. A standard deviation of less than or equal to one is used for determining if the survey respondents have reached a consensus when paired with a six-point Likert scale. If it is found to be less than one, then the group can be considered to be at a consensus. However, to accept or reject the issue, the mode needs to be considered as well. The accept/reject criteria for the mode requires it to be less than two (to reject) or greater than five (to

accept) this issue, representing a consensus of disagree and agree, respectively. These are the boundaries for the mode when the standard deviation of less than 1 is also considered, the majority of the group will have to be plotted on the agree or disagree side of the Likert scale. Once accepted or rejected based on consensus, the issues are then removed from the subsequent rounds of the study, thus the rounds become shorter in length (i.e., fewer issues to evaluate) which helps prevent participant fatigue. Once all of the issues either have been accepted or rejected, the Delphi Study, can be considered complete and the issues do not need further consideration by the experts.

3.2 Categorization

Once the issues are identified through the usage of the Delphi Method, they need to be organized in order to make the issues more manageable. Organizing the issues into categories makes them easier to understand by grouping them into similar topics.

In order to categorize the issues, a facilitated discussion about the nature and definitions of each issue will reveal the similarities in some of the issues. These similarities can then be used to group the issues. Once groups of similar issues have been established, an appropriate name for each category can be developed based off of the connections used to group them together. After the categories are named, some of the issues may need to be adjusted into other categories if they no longer fit once the category title is established. The category names and the issue placement may need to be adjusted in an iterative manner until there is consensus on the categorization. The number of issues within a category will not have a minimum or maximum, letting the categories develop organically.

3.3 Analytic Hierarchy Process

After the completion of the Delphi Study and Categorization, an Analytic Hierarchy Process (AHP) will be employed to prioritize the categories and the issues. The AHP process will rank the issues that have been identified as important during the Delphi Study, within each category and the categories themselves to establish weightings.

3.3.1 Background on Analytic Hierarchy Process

In order to more directly compare the issues they need to be weighted for their level of importance. In order to do so the Analytic Hierarchy Process was used, AHP is a methodical system for weighting a series of items. This method derives a priority scale by which the issues can be compared (Saaty 2004). AHP, developed by Thomas Saaty, is an effective tool for prioritizing items based on the opinion of a group of experts (Figueroa 2012). It was originally developed to create a systematic measurable framework for preferences, by taking general preferences and creating a structure (Saaty 1980).

3.3.2 Inputs

The process for completing AHP is through a series of pairwise comparisons which the relative importance of items is ranked on a scale of 1 to 9; one meaning the items are equally important and nine meaning, that one item is extremely important over the other (Figueroa 2012). Table 3-1: the Fundamental Scale of Absolute Numbers is the table provided by Saaty to describe the scale (1980).

Table 3-1: The Fundamental Scale of Absolute Numbers (Saaty 1980)

Intensity of Importance	Definition	Explanation
1	Equal importance	Two activities contribute equally to the objective
2	Weak or slight	
3	Moderate importance	Experience and judgment slightly favor one activity of another
4	Moderate plus	
5	Strong importance	Experience and judgment strongly favor one activity over another
6	Strong plus	
7	Very strong or demonstrated importance	An activity is favored very strongly over another, its dominance demonstrated in practice
8	Very, very strong	
9	Extreme importance	The evidence favoring once activity over another is of the highest possible order of affirmation

This scale describes how to rate a pair to establish a comparison. For each comparison, value there is also a reciprocal value. If A is three times as important as B then B must be one-third as important as A. As each value has a reciprocal value and an item compared to itself should be rated as equally important, for n number of items $\sum_{i=1}^{n} n - i$ number of comparisons need to be made, as the comparisons do not need to be repeated in the reciprocal form.

3.3.3 Calculations

To calculate the resulting weightings the comparisons between the pairs of issues need to be organized into a matrix format. The matrix created is a reciprocal matrix where the bottom left corner of the matrix is the reciprocal of the top right corner, as described previously this accounts for the reversibility of a comparison. For example, the following matrix is comparing items A, B and C, if A was compared as being three times greater than B, if B was compared as being three times greater than C and A was compared as nine times greater than C:

Table 3-2: Example Input Matrix

	A	B	C
A	1	3	9
B	1/3	1	3
C	1/9	1/3	1

 By the values for comparison given above pairs with a rating of one are equally important, in the matrix of comparisons any item compared to itself must have an equal level of importance so the diagonal values are equal to one. In space 1, 2 of the matrix the number shown is 3. Therefore as described previously the reciprocal number in location 2,1 of the matrix is 1/3. Due to reciprocal nature of the comparisons, only the area upper right above the diagonal, or the lower left corner, below the diagonal, of the matrix needs to be known in order to complete the matrix.

This matrix forms the basis for the calculation of the weightings. In order to determine the weightings, the matrix first needs to be raised to the 10th power (Saaty 2004). To accomplish this, matrix can be run through software that has matrix compatibility. MS Excel contains the

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MMULT function which calculates the cross product of two given matrices. Within excel the MMULT function needs to be nested for 10 multiplications of the matrix. For the example above the resulting matrix would be:

Table 3-3: Example Matrix Raised to the 10th Power

	A	B	C
A	19683	59049	177147
B	6561	19683	59049
C	2187	6561	19683

Utilizing the resulting matrix the next step is to take the sum of each row and the sum of the total matrix (Saaty 2004). The resulting sum of the example matrix is 369603, and the resulting vector which represents the sum of the rows is:

Table 3-4: Example Vector Representing Sum of the Rows of the Matrix

A	255879
B	85293
C	28431

The sum of each row is then divided by the sum of the entire matrix (Saaty 2004), resulting in the percent weighting for each of the issues considered:

Table 3-5: Resulting Weightings of Example Matrix

A	69%
B	23%
C	8%

3.3.4 Aggregation of Multiple Users

With the usage of AHP, it may be desirable to combine the inputs of multiple experts. The recommended method in order to combine the judgment of experts is through the usage of the geometric mean (Saaty 2004). There are two methods for doing such; one is to take the results of each individual AHP and combine the resulting weightings using the geometric mean (Saaty 2004). The second method is to combine the matrices of the original responses using the geometric mean and then calculate the resulting weightings based on the resulting matrix of the means (Saaty 2004). The benefit of the second method is that the resulting weightings will add to 100% as they do in the individual matrices, and is therefore in the method used for this project.

3.3.5 Consistency Index

When the matrixes are calculated, they need to be validated to ensure that the inputs are consistent. Consistency for AHP follows the logic that if A is three times greater than B and B is three times greater than C therefore A must be nine times greater than C. This is represented in the example in section 3.3.3 Calculations. In larger matrices with more items to compare, it is possible that the inputs can become inconsistent. A certain degree of inconsistency in the responses is expected and deemed acceptable. In order to determine if the consistency a matrix of response is acceptable a number called the Consistency Ratio (CR) must be less than or equal to 0.10 (Saaty 1980). A consistency ratio of 0.00 is obtained through a perfectly consistent matrix.

In order to determine the CR two numbers are needed the Consistency Index (CI) and the random index (RI). The CR is calculated by dividing the CI by the RI (Saaty 1980).

The CI is the measurement of how inconsistent a matrix is. The value is calculated from the formula $(\lambda_{max}-n)/(n-1)$, where n is the order of magnitude of the matrix, or how many items are being compared (Saaty 1980). λ_{max} is calculated by taking the cross product of the original matrix and the vector which represents the sum of the rows, dividing each value in the vector created by the corresponding number from the sum of the rows vector, and taking the average of the values in the resulting vector (Saaty 1980).

The RI is a number that is based on the consistency of randomly generated matrices with forced reciprocals. The numbers that compose the RI values for the various sized matrices were determined by a series of simulations on theoretical matrices (Saaty 2004). Table 3-6: Random Index Values displays the RI values for a 1x1 matrix to a 15x15 matrix, for comparison sets ranging from one item to fifteen respectively (Saaty 1980 pg. 21).

Table 3-6: Random Index Values

Order of Matrix	1	2	3	4	5	6	7	8	9	10	11	12	14	15
RI	0.00	0.00	0.58	0.90	1.12	1.24	1.32	1.41	1.45	1.49	1.51	1.48	1.56	1.57

When using information which is aggregated from multiple inputs, the consistency ratios of the individual inputs must be below 0.10, as well as the consistency of the resulting matrix. This ensures validity in the final output, and ensures the inputs to the aggregated data are consistent and an overall consistency is not the result of the canceling out of the inconsistencies from various inputs.

3.3.6   Development of the Analytic Hierarchy Process software

In order to facilitate the usage of AHP, a computer software that could perform the calculations and set up the pairwise comparisons was needed. The use of a computerized setup would make the process easier for the participants and simplify the calculation process. It would also allow access for participants are in multiple locations. However, the commercially available software did not provide enough transparency into the calculation process to ensure that their process matched that of the originally developed method. It also did not provide access to the consistency ratios that are needed to validate the results that the software produces.

In order to overcome this, an Excel based tool was developed. By developing our own software, it ensured that the calculations were being conducted in the desired manner and that the consistency ratios were available to be checked. The tool developed was a series of three types of Excel workbooks. The first workbook was designed to set up the list of comparisons for the issue. It used a call function from the list of issues on a given sheet to create the comparisons

between each set of items. The second workbook was the entry method for the participants; each of the nine categories of issues had a sheet setup with the comparisons, as well as, a sheet that compared the categories to each other. A series of radio buttons allowed the users to select the number that represented how important each issue was compared to the other issue in that pair. This information is fed to a calculation sheet, which contains the matrices and the calculation formulas. A results sheet displays the weightings for an individual participant and the consistency ratios. The final workbook was for compiling the results of each of the individual users; it integrates the matrices of the inputs from the individual workbooks into a single set of calculations to obtain the aggregated group weightings.

3.4 Process Elaboration

While the metric is able to measure the readiness of a company to do work in an unfamiliar country, we needed to create a process for how to overcome the identified weaknesses in project readiness. In order to do so a general process was established from which detailed processes and solutions could be applied. The basis of the process was illustrated by a flow chart shown in Figure 3-1: Mitigating Process.
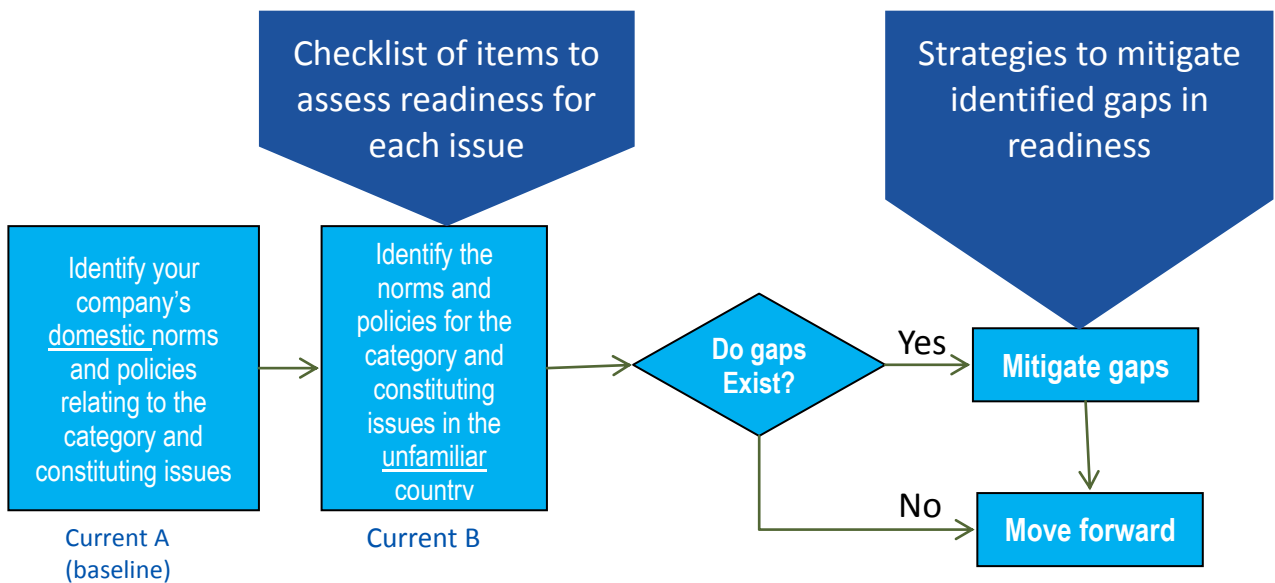
Figure 3-1: Mitigating Process

After the creation of the general process, we sought to answer, "What are the specific things to check and how do you overcome them?" for each of the issues identified. The members of RT294 each took a category in which they felt they had expertise and went to their companies to conduct interviews and focus groups to answer that question. The information collected about each issue was organized into actionable checklists, with a column on the left listing the items to check regarding the issue and the column on the right providing the mitigating strategies to overcome each of the items.

The members of RT294 analyzed the lists for accuracy and completeness. In this step, they identified and addressed areas that needed further elaboration and ensured clarity in the solutions. The members of RT294 agreed that these processes cannot capture everything that can be done, so they focused their efforts on ensuring that the processes contained the *essence* of what is needed to create a project readiness action plan. The solutions created serve as a base to forming a plan to establish a readiness level appropriate to allow the project to continue. The full printout of the Mitigating Strategies is available in Appendix F.

4   The Results: Metric Development

The development of the metric resulted in the identification of 62 issues that commonly prevent successful deployment of projects in unfamiliar countries. These 62 issues were then categorized into nine categories. The resulting categories and issues within each category were weighted using AHP to determine the relative importance of each issue and category. The issues were also assigned a uniqueness modifier. These factors combined with user inputs are the elements used to calculate the metric and measure project readiness.

4.1   Delphi Study Results

The Delphi Study identified 62 issues which are important to the deployment of best practices in unfamiliar countries. This occurred through a three round Modified Delphi Study which was based off of a content analysis of the literature. The rounds of the Delphi Study refined this list identified in the content analysis to ensure that it reflected what has been experienced by the expert participants in the Delphi Study.

4.1.1   Content Analysis Results

The content analysis identified 198 content pieces from 15 sources, including focus groups, interviews, and relevant literature. This collection of content pieces yielded 57 issues which are commonly encountered when preforming work in unfamiliar countries. The lists was deemed exhaustive with confirmation by the split-half technique in which the list of 198 pieces could be randomly divided in half and still yield the same 57 issues. The list of issues identified is shown in Table 4-1.

Table 4-1: Issues Identified by Content Analysis

	Issue
1	Differing personal values, ethics, and lifestyle.
2	Different methods for communication (for example, verbal, written, body language).
3	Different accommodations due to religious practices of labor force (for example, unable to wear hard hats).
4	Differing contractual terms and conditions in local market.
5	Differences in the local building code from the U.S. code or International Building Code.

6	Differing perceptions of your company reputation by locals.
7	Differing level of familiarity with best practices and/or their implementation by the local entities (for example, by labor force, subcontractors).
8	Differing local laws and legal practices external to the project (for example, lack of awareness of local laws).
9	Differing relationship required with local labor supply and labor groups.
10	Different regulations specific to foreign businesses (for example, sponsorship, registration, licensing, etc.).
11	Different understanding of how to treat intellectual property.
12	Different level of local business competition.
13	Differing understanding of what constitutes a contract (for example, scope definition, terms and conditions).
14	Differing regulations on the importation and exportation of materials and equipment.
15	Different local building and construction permit requirements and process for acquisition of permits.
16	Differing local availability of materials and equipment.
17	Differences in currency required to be used on a project.
18	Differing geological and geographic considerations.
19	Different level of existing physical infrastructure (for example, water, power, transportation).
20	Differing labor laws.
21	Differing levels of concern for environmental issues.
22	Differing restrictions on construction activity at jobsites (for example, limitations on hours when construction activities can proceed).
23	Differing insurance and bonding requirements.
24	Differing local sentiments toward project.
25	Different expectations/requirements for providing infrastructure improvements (for example, housing, roads, schools).
26	Differing regulations on materials procurement (for example, specific vendors that must be used, 'buy local' regulations).
27	Differing relationships and interactions with local government and regulators.
28	Differing availability of local labor.
29	Differing technical skills of locally available labor.
30	Different property management laws (for example, zoning, ownership regulation, property rights, eminent domain, squatter's rights, etc.).
31	Differing safety culture and practices by labor force.
32	Differing logistics for access to job site.
33	Differing political climate and level of political stability.
34	Differing needs for jobsite security.
35	Differing management styles.
36	Different availability and requirements for worker health and safety (for example, predominant diseases, food and clean water access, healthcare).
37	Differing regulations relating to the handling of hazardous materials.
38	Different ethical standards in conducting business.
39	Different security procedures for travel and living.

40	Visa requirements for expatriate workers.
41	Differing scheduling considerations based on the workforce (for example, prayer times, local holidays).
42	Dealing with currency exchange rates and currency stability.
43	Different cost level incurred due to regulatory process.
44	Existence of cultural clashes between groups working on a project.
45	Differing risk management methodologies (for example, commercial, financial, operational, technical).
46	Differing local economic and market conditions.
47	Different protocol for interactions between companies.
48	Dealing with different locally spoken languages.
49	Differing pay rates for local and expatriate labor.
50	Cultural differences in relationships between bosses and employees (i.e., different hierarchical relationships).
51	Differences in local business culture (for example., how things get done, resistance to change, cooperation).
52	Different climate and weather considerations.
53	Cultural differences in interpersonal interactions.
54	Different support services that need to be provided for expatriate workers.
55	Differing procedures for reacting to an emergency.
56	Differing local norms in the way workers are treated.
57	Different level of existing information infrastructure (for example, telephone, internet, etc.).

4.1.2   Delphi Survey Results

The survey based rounds of the Delphi Study conducted sought to gain expert consensus on the list of 57 issues identified in the content analysis. For each issue two statements were made:

1- According to your experience, this can be an IMPORTANT issue to be addressed when attempting to deploy a best practice in an unfamiliar country.

2- This issue is UNIQUE to deploying best practices in unfamiliar countries (i.e., it is not a common deployment issue in the United States).

For these statements, we sought to gain consensus around each of the issues. To determine if an issue is accepted, the responses of the experts had to meet the criteria of a mode of greater than five and a standard deviation of less than one for the importance of the issue. Issues that have a mode of less than two and a standard deviation of less than one would be rejected from the study.

Alternatively, if consensus was not reached within three rounds of the study it was considered divergent and rejected on that criterion.

The Delphi Study was approved by the Virginia Tech Institutional Review Board (IRB). The certificate of approval is available in Appendix A: Delphi Study IRB Approval.

In order to facilitate the Delphi study, online survey software was used. SelectSurvey is server based survey software which is licensed by CII for research purposes. The server is maintained by CII to ensure secure storage of the collected survey data. The printouts of the surveys used are included in Appendix H.

4.1.2.1 Expert Recruitment

The basis of a Delphi Study is the experts who are responding to the issues. Ensuring an adequate sample of experts provides validity to the results of the Delphi Study. In order gain participation by experts who met the desired criteria described in 3.1.3, we relied on the professional connections of the members of RT294. The team used the recruitment information sheet available in Appendix B. Delphi Study Expert Recruitment Materials, and reached out within their company and to their peers. From these connections, 60 experts who met the criteria were identified. Of the 60 experts identified and approached 53 agreed to participate in the Delphi Study. These 53 experts represented 19 companies.

4.1.2.2 Delphi Study Round 1 Results

Utilizing the content analysis as the list of starting issues, the experts were asked to respond to the importance and the uniqueness of each of the 57 issues. In addition, the experts provided feedback explaining why they responded the way that they did for each of the issues.
In the first round, 43 of the 53 experts responded to the survey for a response rate of 79.9%.
Of the 57 issues tested 39 reached consensus in the first round. The remaining 18 issues needed to be retested with the provided feedback in the second round.

In the following table, partial results from round 1 are shown. In this example of the results issue 1 and issue 4 both met the acceptance criteria to be accepted as an important issue by the study. The other four issues were then retested in the subsequent round.

Table 4-2: Sample of Round 1 Delphi Study Results

Issue #	Question	Mean	Median	Mode	Standard Deviation	Response Count
1	Differing personal values, ethics, and lifestyle.	5.238	5	5	0.726	42
2	Different methods for communication (for example, verbal, written, body language).	5.119	5	5	1.017	42
3	Different accommodations due to religious practices of labor force (for example, unable to wear hard hats).	4.142	4.5	5	1.457	42
4	Differing contractual terms and conditions in local market.	4.880	5	5	0.992	42
5	Differences in the local building code from the U.S. code or International Building Code.	4.619	5	5	1.188	42
6	Differing perceptions of your company reputation by locals.	4.285	4	4	1.110	42

At the end of the questions for Round 1, an open ended response question was added in order to determine if any issues had not been detected by the content analysis asking the participants to: "Please use this space to describe any other problems that you feel are important and unique to implementing best practices in unfamiliar countries". This question was responded to by 11 participants. From the comments, six additional issues were identified to be included in the subsequent rounds of the study. The six additional issues identified were:

- Reluctance to consider adopting local practices.
- Different technical capability of locally available engineering workforce.
- Different engineering expectations/requirements.
- Different levels of clarification needed to meet expectations and achieve outcomes.

- Different levels of discipline in adhering to project schedules.
- Different levels of surveillance required for activities of the work force.

4.1.2.3 Delphi Study Round 2 Results

In the second round of the Delphi Study, 24 issues were presented to the experts, the 18 ones that needed to be retested after the first round and the six new issues suggested by the experts.

In the second round, the experts were provided with the issues, as well as, feedback as to how the other experts responded in the previous round, with the intent to influence the experts based on their peers' responses. The feedback provided consisted of percentages representing how the experts responded in the previous round as well as the comments provided by the experts in the first round. The comments were shown to the experts in an anonymous format in which the identifying information had been removed from the comments.

The experts were asked to consider the importance and the uniqueness of each of the remaining issues while also considering feedback on the previous round. They were once again asked to provide feedback on their response choices. In the second round of the study, 13 of the 18 issues were accepted and five of the six new issues suggested by the experts were accepted as having reached consensus. The six of the 24 issues tested which did not reach consensus were retested in the third round.

In the second round 33 of the 53 original experts participated, which is a response rate of 62.2%. While this is still an adequate number of responses, it is significantly lower than that of the previous round. This is likely due to the length of the original survey and the time required completing it, and the experts being less willing to repeat the process.

4.1.3   Delphi Study Round 3 Results

The third round of the Delphi Study tested the remaining six issues from the previous round. The third round followed the same format as the second round in which the participants were provided with feedback based on the responses from the previous round. The respondents were

asked to respond to the importance and the uniqueness of each issue and provide feedback on their response choices.

In the third round of the study, five of the six remaining issues were accepted and the last issue was rejected from the study. The issue rejected was "Differing geological and geographic considerations." Due to diminishing returns from subsequent round of study and the direction of the responses from the experts, this issue was considered divergent, in that the experts would not reach consensus and continued to spread their responses further apart (Dajani 1979) and therefore rejected from the study.

In the third round of the Delphi Study 35 experts of 53 responded, with a response rate of 67.9%. This response rate is slightly higher than that of the second round, which may be due to the shorter nature of the third round of the Delphi Study.

4.1.4   Summary of Delphi Results

The Delphi Study identified 62 issues which are important to the deployment of best practices in unfamiliar countries over three rounds.

The results of the Delphi Study and the acceptance of the issues can be seen in Appendix C: Combined Delphi Results. Figure 4-1 provides and illustration of the summary of the results of each round of the study.

Figure 4-1: Summary of Delphi Study

Figure 4-1: Summary of Delphi Study
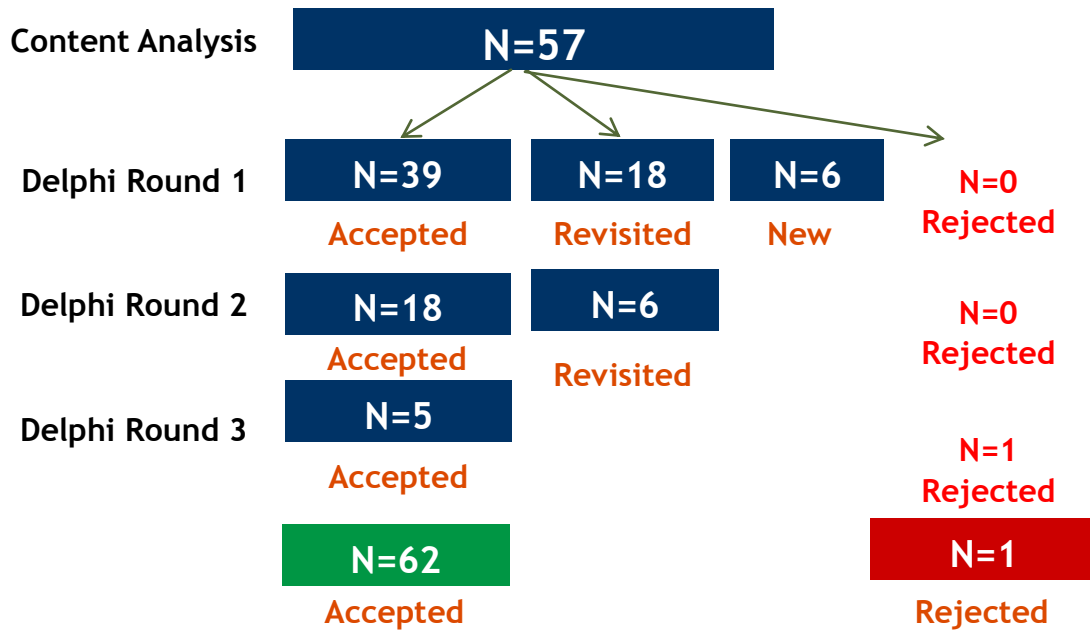
4.2 Uniqueness Modifier Creation

In order to further evaluate the impact that each issue has on project success, the uniqueness of an issue to best practice deployment in unfamiliar countries needed to be considered. While an issue may be important, it may not be unique to international projects and already be in a company's protocols, which makes it less likely to be detrimental to a project. In order to account for this difference, a uniqueness modifier was developed from the results of the Delphi Study.

The uniqueness modifier was developed based on the expert responses to the question, "This issue is UNIQUE to deploying best practices in unfamiliar countries." The responses from the round in which the issue was accepted by the study based on the responses to the "IMPORTANCE" question in the Delphi Method were weighted to create the uniqueness modifier. For each issue the percentage of the respondents who responded for each possible response, a weighting from negative one to one represents if it is not unique or if it is unique, respectively. The weightings were applied as in Equation 4-1 to create the uniqueness modifier.

This was completed for each of the issues identified by the Delphi Study and the resulting values are shown in Appendix D: Uniqueness Modifier Values.

Equation 4-1: Uniqueness Modifier Calculation

(% Strongly Disagree $* -1$)
(% Disagree $* -0.666$)
(% Somewhat Disagree $* -0.333$)
(% Somewhat Agree $* 0.333$)
(% Agree $* 0.666$)
+ (% Strongly Agree $* 1$)
  Uniqueness Modifier

4.3   Categorization Results

The categorization process resulted in the creation of nine categories with three to thirteen issues each. The categorization was performed at a research team meeting with 14 team members in attendance.

The categorization process was performed by grouping the issues by their commonalties. The team members organized the issues and then named the categories. Once the categories were named, the issues were adjusted to ensure they were in the most appropriate category.

There were nine resulting categories:

- Business Customs
- Communications
- Cultural and Social
- Geography and Logistics
- Human Resources and Workforce
- Legal and Contracts
- Market and Political Conditions
- Regulations
- Safety and Security

Each category has between 3 and 13 issues. The categorization process focused on arranging the issues into the most appropriate groupings rather than trying to balance the number of issues within each category. The resulting categorizing of the issues is as follows.

- **Business Customs**
  - Differing levels of familiarity with best practices and/or their implementation by local entities; such as the labor force or subcontractors
  - Different understanding of how to treat intellectual property
  - Differing levels of concern for environmental issues
  - Differing relationships and interactions with local government and regulators
  - Differing management styles
  - Different ethical standards in conducting business.
  - Differing risk management methodologies, such as commercial, financial, operational, or technical
  - Different protocol for interactions between companies
  - Differences in the local business culture, such as how things get done, resistance to change, and cooperation
  - Differing local norms in the way workers are treated
  - Different engineering expectations and/or requirements
  - Different levels of discipline in adhering to project schedules
  - Different levels of surveillance required for activities of the work force
- **Social and Cultural**
  - Differing personal values, ethics, and lifestyles
  - Differing local sentiments toward project
  - Differing scheduling considerations based on the workforce, such as prayer times, holidays, etc.
  - Existence of cultural clashes between groups working on a project
  - Cultural differences in relationships between bosses and employees, such as different hierarchal influences
  - Cultural differences in interpersonal interactions
  - Different accommodations due to religious practices of labor force, such as unwilling/unable to wear hard hats
  - Differing perceptions of your company reputation by locals
  - Reluctance to consider adopting local practices
- **Regulations**
  - Different regulations specific to foreign-owned businesses, such as sponsorship, registration, licensing, etc.
  - Different local building and construction permit requirements and process for acquisition of permits
  - Differing regulations on materials procurement, such as specific vendors that must be used or "buy local" regulations
  - Different cost level incurred due to regulatory process
  - Differences in the local building code from the Company's Home Country Codes or International Building Code

- o Differing regulations on the importation and exportation of materials and equipment.
- o Differing restrictions on construction activity at jobsites, such as limitations on hours when construction activities can proceed
- o Differing regulations relating to the handling of hazardous materials
- **Market and Political Conditions**
  - o Differing political climate and level of political stability
  - o Dealing with currency exchange rates and currency stability
  - o Differing local economic and market conditions
  - o Different level of local business competition
  - o Differences in the required project currency
  - o Different expectations/requirements for providing infrastructure improvements, such as housing, roads, and schools
  - o Differing availability of local labor
- **Geography and Logistics**
  - o Different levels of existing physical infrastructure, such as water, power, or transportation
  - o Differing logistics for access to job site
  - o Different support services that need to be provided for expat workers
  - o Different level of existing information infrastructure, such as telephone, internet, etc.
  - o Differing local availability of materials and equipment
  - o Different climate and weather considerations
- **Legal and Contracts**
  - o Differing contractual terms and conditions in local market
  - o Differing local laws and legal practices that can affect the project (for example, lack of awareness of local laws)
  - o Different property management laws (for example, zoning, ownership regulation, property rights, eminent domain, squatter's rights, etc.)
  - o Visa requirements for expatriate workers
  - o Differing understanding of what constitutes a contract, such as scope definition and terms and conditions
  - o Differing insurance and bonding requirements
- **Human Resources and Workforce**
  - o Differing labor laws
  - o Differing pay rates for local and expat labor
  - o Differing relationship required with local labor supply and labor groups.
  - o Differing technical skills of locally available labor.
  - o Different technical capability of locally available engineering workforce.
- **Safety and Security**
  - o Differing safety culture and practices by labor force
  - o Differing needs for jobsite security
  - o Different availability and requirements for worker health and safety, such as predominant diseases, food and clean water access, and healthcare
  - o Different security procedures for travel and living
  - o Differing procedures for reacting to an emergency

- **Communications**
  - Dealing with different, possibly multiple, locally spoken languages
  - Different methods for communication, such as verbal, written, or body language
  - Different levels of clarification needed to meet expectations and achieve desired outcomes

4.4 Analytic Hierarchy Process Results

The Analytic Hierarchy Process (AHP) was used to weight the issues. It was used on the category level to weight the developed categories in relationship to each other. AHP was also used to weight the issues within each category.

Nine team members from RT294 participated in the application of AHP. The team members who completed the AHP have extensive background on construction projects in a variety of countries, and are familiar with the issues and their definitions and participated in the categorization process. Each team member underwent a training process on how AHP works and how to use the Excel tool.

Each team member filled out their copy of the AHP software which asked them to perform a series of pairwise comparisons. The process was completed for the issues within each of the categories and for the categories themselves. The results from each of the nine participants were combined using the geometric mean to give aggregated weightings.

To ensure validity in the results of the AHP the consistency ratios were considered. For each participant the consistency ratios for the AHP preformed within each category and for the categories against each other were less than 0.10. For the combined results, the consistency ratios were also less than 0.10.

The resulting aggregated weightings and CRs from the AHP conducted are available in Appendix E: Aggregated AHP Results.

4.4.1 Example Calculation for the Category of Human Resources and Workforce

As an example, the following is the calculation of the weightings for the category of Human Resources and Workforce. The first table shows the inputs by each of the nine participating team members.

Table 4-3: Input Matrices for Human Resources and Workforce AHP

Team Member 1

	Differing labor laws.	Differing pay rates for local and expatriate labor.	Differing relationship required with local labor supply and labor groups.	Differing technical skills of locally available labor.	Different technical capability of locally available engineering workforce.
Differing labor laws.	1	5	3	0.333333333	0.333333333
Differing pay rates for local and expatriate labor.	0.2	1	0.333333333	0.2	0.2
Differing relationship required with local labor supply and labor groups.	0.3333333	3	1	0.333333333	0.333333333
Differing technical skills of locally available labor.	3	5	3	1	1
Different technical capability of locally available engineering workforce.	3	5	3	1	1

Team Member 2

	Differing labor laws.	Differing pay rates for local and expatriate labor.	Differing relationship required with local labor supply and labor groups.	Differing technical skills of locally available labor.	Different technical capability of locally available engineering workforce.
Differing labor laws.	1	1	0.333333333	0.25	0.25
Differing pay rates for local and expatriate labor.	1	1	0.333333333	0.25	0.333333333
Differing relationship required with local labor supply and labor groups.	3	3	1	0.333333333	0.333333333
Differing technical skills of locally available labor.	4	4	3	1	3
Different technical capability of locally available engineering workforce.	4	3	3	0.333333333	1

Team Member 3

	Differing labor laws.	Differing pay rates for local and expatriate labor.	Differing relationship required with local labor supply and labor groups.	Differing technical skills of locally available labor.	Different technical capability of locally available engineering workforce.
Differing labor laws.	1	6	3	3	3
Differing pay rates for local and expatriate labor.	0.1666667	1	1	0.25	0.25
Differing relationship required with local labor supply and labor groups.	0.3333333	1	1	0.2	0.2
Differing technical skills of locally available labor.	0.3333333	4	5	1	2
Different technical capability of locally available engineering workforce.	0.3333333	4	5	0.5	1

Team Member 4

	Differing labor laws.	Differing pay rates for local and expatriate labor.	Differing relationship required with local labor supply and labor groups.	Differing technical skills of locally available labor.	Different technical capability of locally available engineering workforce.
Differing labor laws.	1	4	3	3	4
Differing pay rates for local and expatriate labor.	0.25	1	2	2	0.5
Differing relationship required with local labor supply and labor groups.	0.3333333	0.5	1	0.333333333	0.5
Differing technical skills of locally available labor.	0.3333333	0.5	3	1	0.333333333
Different technical capability of locally available engineering workforce.	0.25	2	2	3	1

Team Member 5

	Differing labor laws.	Differing pay rates for local and expatriate labor.	Differing relationship required with local labor supply and labor groups.	Differing technical skills of locally available labor.	Different technical capability of locally available engineering workforce.
Differing labor laws.	1	4	0.333333333	0.333333333	0.333333333
Differing pay rates for local and expatriate labor.	0.25	1	0.2	0.2	0.333333333
Differing relationship required with local labor supply and labor groups.	3	5	1	0.333333333	3
Differing technical skills of locally available labor.	3	5	3	1	3
Different technical capability of locally available engineering workforce.	3	3	0.333333333	0.333333333	1

Team Member 6

	Differing labor laws.	Differing pay rates for local and expatriate labor.	Differing relationship required with local labor supply and labor groups.	Differing technical skills of locally available labor.	Different technical capability of locally available engineering workforce.
Differing labor laws.	1	1	1	0.2	0.2
Differing pay rates for local and expatriate labor.	1	1	1	0.2	0.2
Differing relationship required with local labor supply and labor groups.	1	1	1	0.333333333	0.333333333
Differing technical skills of locally available labor.	5	5	3	1	0.333333333
Different technical capability of locally available engineering workforce.	5	5	3	3	1

Team Member 7

	Differing labor laws.	Differing pay rates for local and expatriate labor.	Differing relationship required with local labor supply and labor groups.	Differing technical skills of locally available labor.	Different technical capability of locally available engineering workforce.
Differing labor laws.	1	0.333333333	1	0.333333333	0.333333333
Differing pay rates for local and expatriate labor.	3	1	1	0.333333333	0.333333333
Differing relationship required with local labor supply and labor groups.	1	1	1	0.333333333	0.333333333
Differing technical skills of locally available labor.	3	3	3	1	1
Different technical capability of locally available engineering workforce.	3	3	3	1	1

Team Member 8

	Differing labor laws.	Differing pay rates for local and expatriate labor.	Differing relationship required with local labor supply and labor groups.	Differing technical skills of locally available labor.	Different technical capability of locally available engineering workforce.
Differing labor laws.	1	7	3	5	3
Differing pay rates for local and expatriate labor.	0.1428571	1	0.333333333	3	0.2
Differing relationship required with local labor supply and labor groups.	0.3333333	3	1	5	0.333333333
Differing technical skills of locally available labor.	0.2	0.333333333	0.2	1	0.142857143
Different technical capability of locally available engineering workforce.	0.3333333	5	3	7	1

Team Member 9

	Differing labor laws.	Differing pay rates for local and expatriate labor.	Differing relationship required with local labor supply and labor groups.	Differing technical skills of locally available labor.	Different technical capability of locally available engineering workforce.
Differing labor laws.	1	2	0.5	0.5	0.5
Differing pay rates for local and expatriate labor.	0.5	1	0.333333333	0.333333333	0.333333333
Differing relationship required with local labor supply and labor groups.	2	3	1	2	0.5
Differing technical skills of locally available labor.	2	3	0.5	1	1
Different technical capability of locally available engineering workforce.	2	3	2	1	1

The geometric mean of these inputs combining them into one input matrix for the calculation is as follows:

Table 4-4: Geometric Mean of Input Matrices

	Differing labor laws.	Differing pay rates for local and expatriate labor.	Differing relationship required with local labor supply and labor groups.	Differing technical skills of locally available labor.	Different technical capability of locally available engineering workforce.
Differing labor laws.	1	2.356404155	1.181895742	0.702494932	0.685291612
Differing pay rates for local and expatriate labor.	0.4243754	1	0.554281716	0.410821528	0.284847738
Differing relationship required with local labor supply and labor groups.	0.8460983	1.804136727	1	0.519238565	0.439933689
Differing technical skills of locally available labor.	1.4234978	2.434147023	1.925897011	1	0.87005758
Different technical capability of locally available engineering workforce.	1.4592328	3.510647497	2.273069839	1.149349219	1

This matrix was then raised to the 10th power:

Table 4-5: Geometric Mean Matrix Raised to the 10th Power

	Differing labor laws.	Differing pay rates for local and expatriate labor.	Differing relationship required with local labor supply and labor groups.	Differing technical skills of locally available labor.	Different technical capability of locally available engineering workforce.
Differing labor laws.	2017805	4396526	2643280	1508175	1272146
Differing pay rates for local and expatriate labor.	929579	2025428	1217728	694799	586063
Differing relationship required with local labor supply and labor groups.	1542500	3360901	2020641	1152917	972485
Differing technical skills of locally available labor.	2709574	5903796	3549481	2025226	1708279
Different technical capability of locally available engineering workforce.	3193522	6958253	4183442	2386945	2013389

From this, the sum of this matrix is 60972880 and the vector representing the sum of the rows is:

Table 4-6: Vector Representing the Sum of the Rows

Differing labor laws.	11837932
Differing pay rates for local and expatriate labor.	5453596
Differing relationship required with local labor supply and labor groups.	9049445
Differing technical skills of locally available labor.	15896356
Different technical capability of locally available engineering workforce.	18735551

The sum of each row was divided by the sum of the matrix, resulting in the weighting of each of the issues.

Table 4-7: Resulting Weighting for Human Resources and Workforce

Differing labor laws.	19.42%
Differing pay rates for local and expatriate labor.	8.94%
Differing relationship required with local labor supply and labor groups.	14.84%
Differing technical skills of locally available labor.	26.07%
Different technical capability of locally available engineering workforce.	30.73%

From these weightings and the initially aggregate information, the consistency index was calculated. To do this λ_{max} was calculated by taking the cross product of the input matrix and the vector representing the weightings. The values of the resulting vector were then divided by the weightings for each issue resulting in the following vector.

Table 4-8: Vector for λmax Calculation

5.01698542
5.01698542
5.01698542
5.01698542
5.01698542

The average values of the number in this matrix was found and represented λmax, which was then used to calculated the consistency ratio as shown below.

Table 4-9: Consistency Ratio Calculation

	Human Resources and Workforce
ƛmax	5.0170
n	5
RI	1.12
CI = (ƛmax-n)/(n-1)	0.0042
CR = CI/RI	0.0038

The constancy ratio of .0038 is within the acceptable range of being less than .01 confirming the validity of the results.

4.5 Metric Development

In order to help companies prepare for projects in unfamiliar countries there needs to be a way by which they can measure their readiness. In order to measure readiness in a consistent and meaningful manner, a metric calculation was established that contains three parts; a user input, the importance weighting, and the uniqueness modifier for each issue.

The first piece of the metric calculation is the importance weighting. These importance weightings were the ones that were developed through the usage of AHP. Both the issue level and category level weightings were considered in the calculation.

The second aspect of the metric calculation is the uniqueness of an issue. While issues may be important to the success of a project, the issues may not be an issue that is unique to international projects. In order to account for this, the uniqueness modifier for each issue was included in the calculation.

The final aspect of the metric is the user input. The tool asks the user to score their readiness for each of the 62 issues from 0 to 10. The scoring follows a definition guideline that is based on that of the CII PDRI Tool, which can be found in CII IR113-2, the scoring definitions of the PDRI were assigned by group consensus by RT294 to the fit the zero to ten scoring of the metric.

Table 4-10: Scoring Definitions

Definitions of Issue Scores	
Score	Meaning
0,1	Poor Understanding – Little or no understanding of the issue and its impact
2,3	Major Deficiencies - Issue is understood but little preparation has been completed
4,5,6	Some Deficiencies- Needs work to complete preparations for this issue
7,8,9	Minor Deficiencies – Some gaps may exist but preparation for this issue underway
10	Complete Understanding- The issue and its impact is fully understood

Ten scores are calculated by the metric based on the user inputs, the overall user readiness score, and a readiness score for each of the nine categories. The within category scores are calculated by multiplying the user input, the importance weighting and the uniqueness modifiers, for each issue and they are then adjusted by a scaling factor to convert the numbers to fit to a 0-10 scale. As written in Equation 4-2:

Equation 4-2: Within Category Score

$$\sum_{\substack{Issue\ Level \\ All\ Issues}} RL * IW * UM * CC = Within\ Category\ Readiness\ Score$$

IW = Issue Weight
RL = Readiness Level
UM = Uniqueness Modifier
CC = 10pt Scale Conversion Constant

The overall readiness scale is calculated in the same fashion but each issue is also multiplied by the category importance weighting as illustrated in Equation 4-3:

Equation 4-3: Overall Readiness Score

$$\sum_{\substack{Issue\ Level \\ All\ Issues \\ All\ Categories}} RL * IW * UM * CC * CW = Overall\ Readiness\ Score$$

IW = Issue Weight
RL = Readiness Level
UM = Uniqueness Modifier
CC = 10pt Scale Conversion Constant
CW = Category Weight

For example when equation 4-2 is applied to the communications category, the calculations are as follows. The user input is multiplied by the weight and the uniqueness value this gives a calculated scoring component. These are then added together and multiplied by the scaling conversion constant to make it fit the zero to 10 scouring scale, resulting in the within category readiness score. This process is illustrated in Table 4-11. This same process is used for Equation 4-3, however each scoring component is also multiplied by the category weight.

Table 4-11: Within Category Example Score Calculation

	Readiness Level (User Input)	Weight (AHP)	Uniqueness Value (Delphi)	Score (Calculated)	Scale Conversion Constant	Category Readiness Score
Communications					2.08	**5.2**
Issue	Input	Weight	Uniqueness Value	Score		
Dealing with different, possibly multiple, locally spoken languages	8	35.3%	0.37	1.053		
Different methods for communication, such as verbal, written, or body language	2	30.3%	0.35	0.211		
Different levels of clarification needed to meet expectations, and achieve desired outcomes	5	34.4%	0.71	1.216		

For this category, the calculation for the category readiness score would be as follows:

$8 * 35.3\% * 0.37 = 1.503$

$2 * 30.3\% * 0.35 = 0.211$

$5 * 34.4\% * 0.71 = 1.216$

$1.503 + 0.211 + 1.216 = 2.48$

$2.48 * 2.0814 = $ **5.2**

5   Tool Development

The International Readiness Passport is the tool developed to facilitate the usage of the metric and organize the mitigating strategies developed. The tool uses a graphical interface to allow the users to input project readiness into the metric and then displays the appropriate information from the mitigating strategies in a report based on the results of the scoring section.

The tool was designed and built within Microsoft Excel. This allowed the visual and graphic features to be created within a "what you see is what you get" environment. The functionality of the tool uses a combination of Macros, VBA code, IF statements and sort functions; these facilitate the inputs by the user and the creation of the report for the projects.

The tool is intended to be used at a project level by the project team members. While extensive usage of the tool can lead to enterprise resource, mapping the assessment provides a greater benefit at a project level as an individual might find a country unfamiliar while the organization they work for may not.
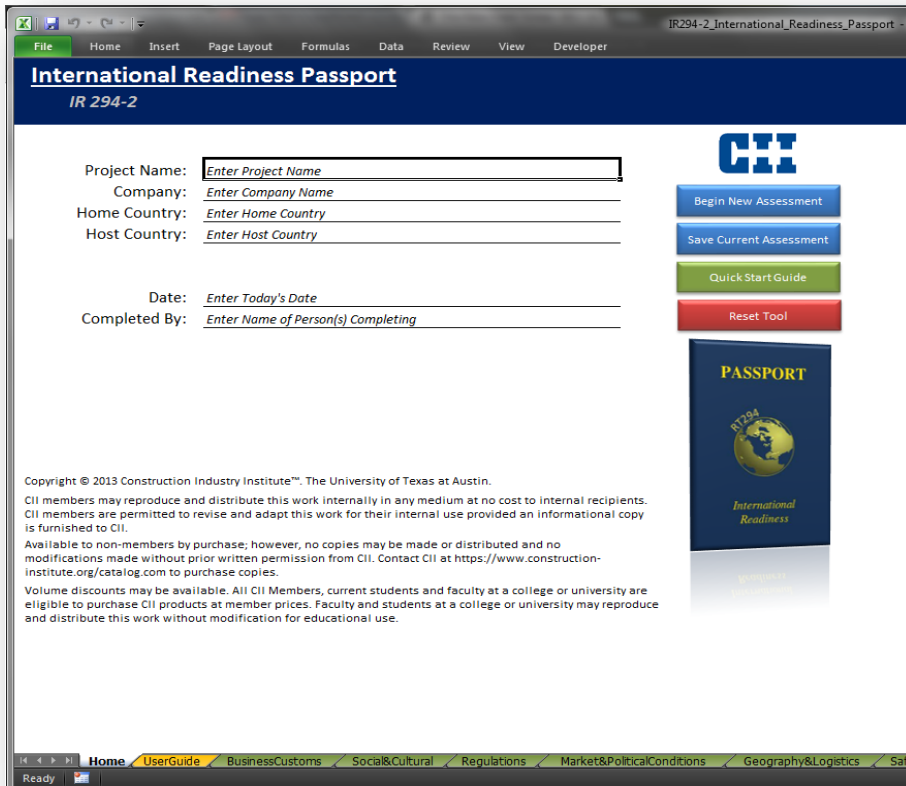
5.1   International Readiness Passport Interface

The first section of the tool allows the user to input information specific to the project being evaluated. This is facilitated through a graphical user interface. From the user inputs, the results and report are generated for application to the project as a team seeks to improve readiness.

### 5.1.1   Inputs through the Graphical User Interface

The tool needed a Graphical User Interface (GUI) to facilitate user inputs into the tool. This allows the user to input the individual readiness scores for each of the 62 issues. It also needed a way to display the results of the calculation for the metric, and then using those, results allow for the customization of the reporting feature of the tool. Finally, the report needed to be generated in an easy to understand format that organizes the strategies so that they could be applied to the project plans.

The user opens the tool and arrives on the Home Page. This page allows for the input of the information to identify the project including; the project name, the company, the country of origin of the project team and the location of the project. The home page provides access to the category pages, the quick start guide, and the results. In addition, a reset button resets all inputs in the tool to zero in case a blank version of the tool is needed.

Figure 5-1: International Readiness Passport Home Page

A user guide is built into the tool. The page is named the "Quick Start Guide" and is accessible through the home page of the tool. The User Guide provides a simplified ten step overview about how to use the tool. The information in the Quick Start Guide is accompanied by screen shots of the tool in the explanation. It provides a shortened version of the information provided by the User Guide (IR 294-2) for those users of the tool who do not have access to the User Guide or do not need that level of detail. IR294-2 provides extensive details on the user interface and how the users should utilize the tool.
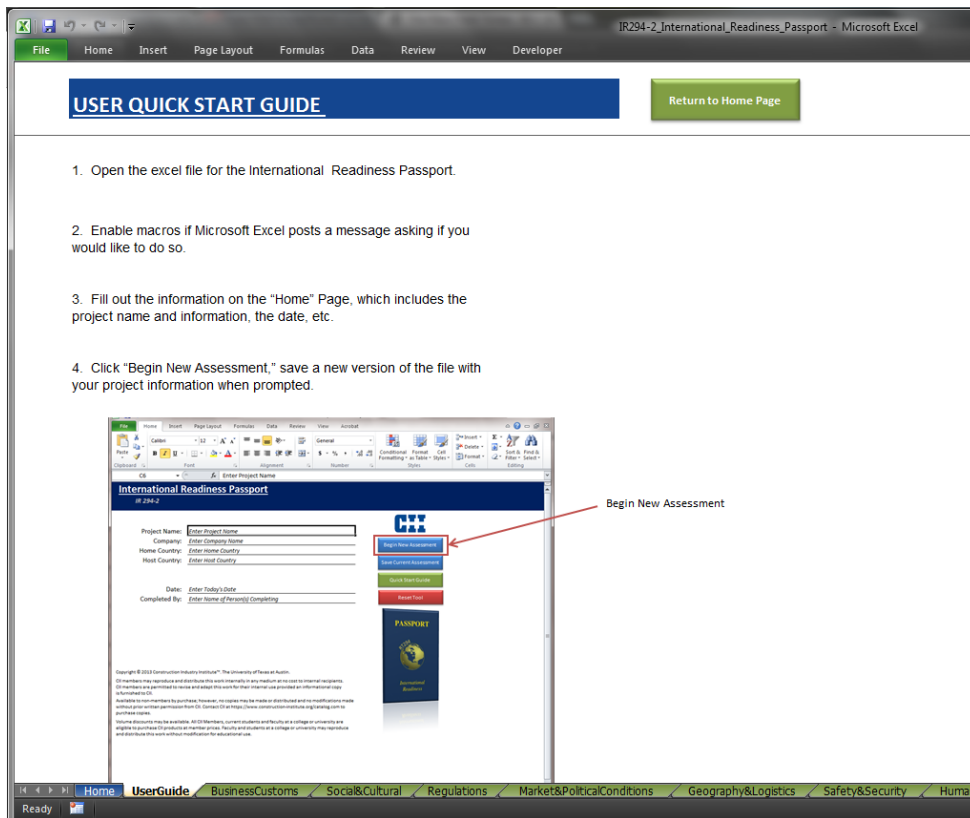
Figure 5-2: IRP Internal User Guide

The category pages within the tool are where the readiness scores for each of the 62 issues are inputted. There is one page per category containing all of the issues within the category. At the top of the page is a scoring guide with an abbreviated version of the definitions for quick reference, and a gauge which displays the score for the given category. In addition, along the top of the page are the navigation buttons directing the users to the home page, the results page, and arrows directing the users to the previous and next categories.
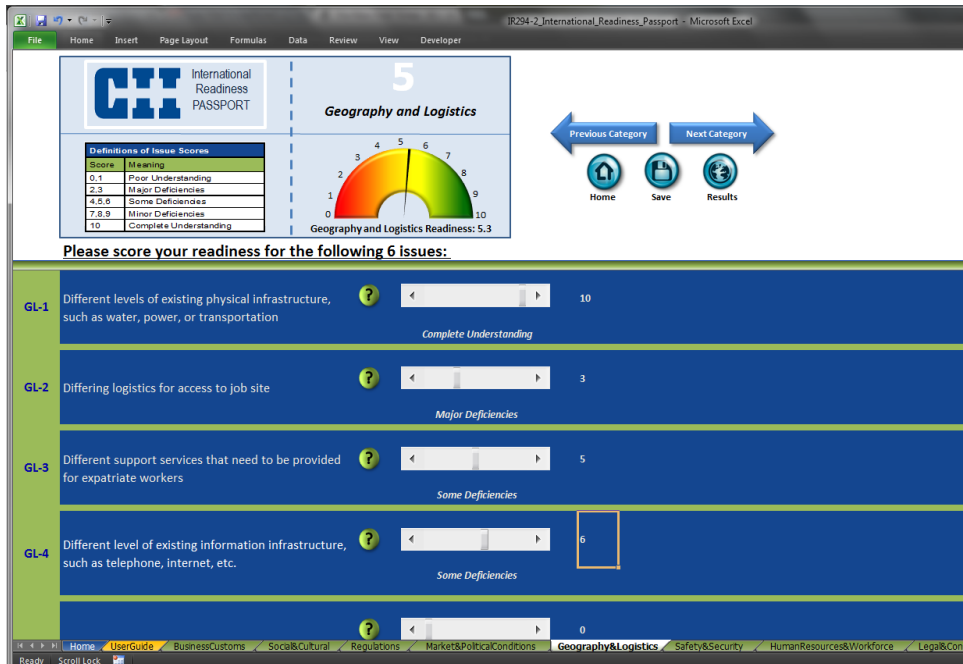
Figure 5-3: IRP Category Page

From the category pages the user proceeds to the results page. The results page displays the gauges with the category scores for each of the nine categories. This page also displays a large gauge with the overall readiness score from the project.

Figure 5-4: IRP Results Page

The process generator page provides a listing of all the issues which received a score between four and nine, organized by category, along with each of the category scores. For these issues the users can select if they would like to include the mitigating strategies in the report for each of the issues, and the selection defaults to include it in the report. This page allows the user to continue on to the report.
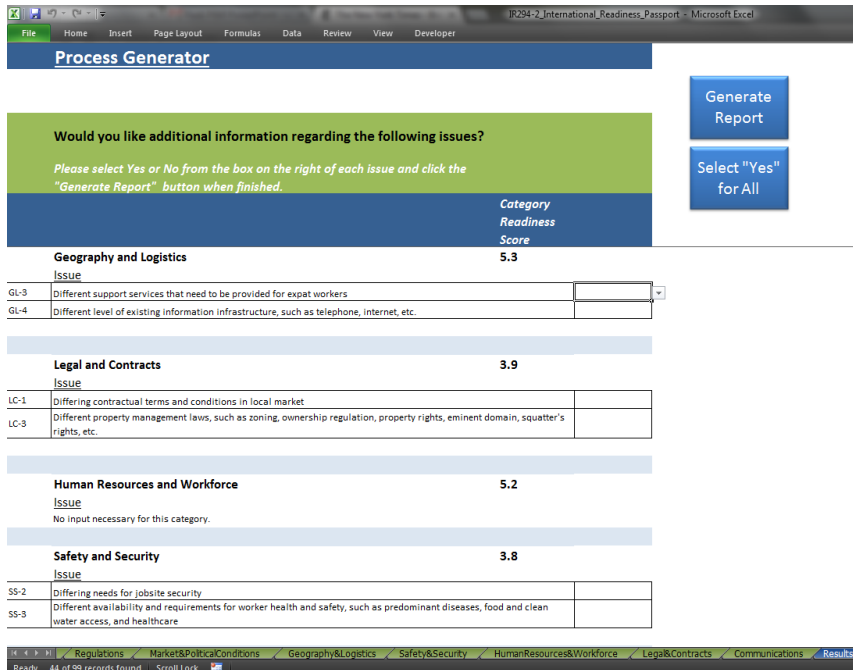
Figure 5-5: IRP Process Generator

Full details on how to use the tool are available in the User Guide IR294-2.

5.2 Outputs

The report generated by the tool provides a printable output based on the results of the user inputs. The report is the organization of the mitigating strategies which are appropriate to the project based on the resulting scores. The report opens with a summary page of all of the scores. It then continues to the body of the report where the customized outputs with the mitigating strategies are located. The full list of mitigating strategies that are contained within the tool is available in Appendix F: Process Elaboration Results.

At the end of the report is a numerical scoring summary which lists how the users scored each issue, the resulting category scores, and an overall score. This section, when printed, can serve as a hard copy to back up the inputs to the IRP or for quick reference when using the mitigating strategies.

Figure 5-6: IRP Report Scoring Summary

6   Validation

The development of the tool required validation to ensure stability, as well as, accuracy in the results.

6.1   Internal Validation

The IRP required extensive testing to ensure that the software provided a stable platform for project assessment and to ensure that the information produced by the IRP matched what was intended in the metric development and process elaboration stages'. In order to ensure that the tool was stable it underwent three stages of testing. The first stage of testing was for usability; the second, to ensure that the calculations were correct; and, the third to ensure the tool was stable for use.

The initial testing was completed by the members of RT294. Each team member was given a copy of the IRP and asked to go through the tool as if they were using it for a hypothetical project. During this process they were asked to identify any issues they had completing the steps to fill out the IRP. The team members were also asked to identify if they had any additional features that they wished to add in order to make the tool more intuitive for use. Features that were added by this process were the internal user guide page and the navigation buttons to the category pages that are shown on the results page in the tool.

The second stage of the testing was done with the intention to ensure that the tool was calculating the metric correctly. For this stage of the validation, the scores calculated by the tool were compared to scores that were calculated using the metric equations separately from the tool. The score calculated by the tool was compared incrementally and the overall and category scores were compared to those calculated by hand, as a score was entered for each of the 62 issues in the tool. This test was repeated twice, once with all of the scores equal to ten and then again for random scoring numbers. This process confirmed that the tool was calculating the correct scores based on the user inputs, but not the accuracy of those scores to representing project readiness which was part of external validation.

The third stage of the testing was in the stability of the functionalities of the tool. This ensured that all of buttons that navigated throughout the tool and the appearance of questions and results in the report were functioning as intended. This process tested each navigation button and compared the appearance of the issues in the process generator to if it should have appeared based on the intended score. The report functions were also checked to ensure that the mitigating strategies were appearing in the correct locations within the report.

6.2 External Validation

To ensure that the tool provides a meaningful benefit to companies and an accurate measure of readiness, external validation was conducted. External validation was preformed retrospectively on projects which had been completed in the past and on ongoing projects. Project evaluations were conducted by RT294 team members about recently completed projects. A detailed case study on the implementation and the effectiveness of the tool was also performed.

6.2.1 Project Evaluations

The members of RT294 performed retrospective analysis on several projects that their companies had been a part of. The projects evaluated represented 12 projects by 11 companies, in 11 countries on six continents. The IRP was applied to the completed project, based on what the project teams believed the readiness was when the project began. For each project, an initial estimate of readiness was compared to that calculated by the tool. Four questions were asked of the respondents to determine the validity of the tool:

- Do you strongly disagree, disagree, agree, or strongly agree that the output and results provided in the tool would help you overcome the challenges you encountered?
- Do you strongly disagree, disagree, agree, or strongly agree that the issues presented in the tool describe the kinds of issues you encountered in executing the project?
- Do you strongly disagree, disagree, agree, or strongly agree that the issues presented in the tool are important considerations for the success of work being completed in countries where you have no previous professional or cultural experience?
- Do you strongly disagree, disagree, agree, or strongly agree that having prior knowledge of the issues presented in the tool would have helped prevent situations you have experienced on site?

The average answers to the questions are as shown in Figure 6-1.

Summary of Validation Results

Do you strongly disagree, disagree, agree, or strongly agree that having prior knowledge of the issues presented in the tool would have helped prevent situations you have experienced on site? — 3.67

Do you strongly disagree, disagree, agree, or strongly agree that the issues presented in the tool are important considerations for the success of work being completed in countries where you have no previous professional or cultural experience? — 3.67

Do you strongly disagree, disagree, agree, or strongly agree that the issues presented in the tool describe the kinds of issues you encountered in executing the project? — 3.30

Do you strongly disagree, disagree, agree, or strongly agree that the output and results provided in the tool would help you overcome the challenges you encountered? — 3.40

1   1.5   2   2.5   3   3.5   4

1= Strongly Disagree, 2= Disagree, 3= Agree , 4= Strongly Agree

Figure 6-1: Summary of Validation Results

For each of the four questions the respondents responded agree to strongly agree that the IRP would be an effective tool to help facilitate the readiness of companies as they go into unfamiliar countries. However, it is important to note that the validation efforts were completed in retrospect which can cause some biasing in the results based on what was experienced by the team.

6.2.2   Detailed Case Study

As part of the validation efforts, a detailed case study on the accuracy and relevance of the tool was performed using an ongoing project. The project was in Africa for a United States based

owner with the work being performed by a United States based contractor, the owner and contractor have asked for identifying information not to be included in this report (Younes 2013). The case study was performed in retrospect one year into the project (Younes 2013). This time allowed the project preparations to still be fresh in the project team's memory, but also allowed for enough time that the team would be able to comment on the accuracy and the ability of the IRP to predict readiness.

For this case study, three meetings were conducted, a preliminary interview, a meeting to facilitate the usage of the IRP, and a final meeting to discuss the outputs of the IRP. The project manager, construction manager, business manager, and project engineer were involved with this process.

The first meeting gathered information about the project (Younes 2013). The project team was asked to rate, in retrospect, how they think they would have scored on each of the nine categories and in overall readiness. Their responses yielded an average score of nine. The project team was also asked to describe the various types of issues that were encountered on the project so far for each of the categories.

The second meeting facilitated the usage of the tool (Younes 2013). The project team went through each of the questions in the tool and responded to each issue. The score for each category and the overall score were calculated. Table 6-1 shows the preliminary scores next to the scores calculated by the IRP.

Table 6-1: Comparison of Preliminary Score and IRP Output

Category Readiness	Preliminary Score	RT 294 IRP Tool Results
Overall Score	9	8.3
Business Customs	9	9
Social & Cultural	9	8.9
Regulations	9	9.6
Geography & Logistics	10	9.8
Market & Political Conditions	9	7.7
Safety & Security	9	8.1
Human Resources & Workforce	9	7
Legal & Contracts	9	8.7
Communications	9	7.3

Based on these results the project team was underestimating their readiness in each of the categories, except for Business Customs and Regulations. This demonstrates a clear benefit to the usage of the tool as the project team had overestimated their readiness.

The final meeting with the project team discussed the outputs of the tool and the results. The team looked at the outputs that the tool would have provided them and were asked to respond to the following questions:

1. *Do you strongly disagree, disagree, agree, or strongly agree that the output and results provided in the tool would help you overcome the challenges you encountered?*

   - They responded that they Agree, and that there is "Only so much a tool or textbook can provide."

2. *Do you agree that the issues presented in the tool are important considerations for the success of work being completed overseas and addressed the issues you encountered?*

   - They responded that they Agree.

3. *Do you think having prior knowledge of the issues presented in the tool would have helped prevent issues you have experienced on site?*

- They responded that it would have helped prevent issues and that the tool could serve as a checklist to help in preparing their readiness.

The project team felt that the tool would have helped prevent many of the issues that they had encountered so far. They also felt that the mitigation strategies provided a good starting point for project preparations. In the final interview when the readiness that was calculated by the tool was compared to the estimated readiness by the team and the IRP score was lower, it became clear that there was an overestimation of project readiness (Younes 2013). This is especially clear in the fact that the tool would have anticipated many of the challenges that were faced on this project.

7 Conclusions and Recommendations

The work of RT294 identified the issues commonly encountered by companies as they seek to do work in unfamiliar countries. The 62 issues identified as being important to the deployment of best practices in unfamiliar countries provide the basis for a meaningful measurement of project readiness. By considering these issues, companies are able to breakdown the challenges that they may face in order to best prepare for their projects. The weightings assigned to each issue help companies focus their efforts for the greatest improvements in project readiness and form the basis for the metric created by RT294.

The creation of the mitigation strategies provides a resource for companies as they attempt to overcome the identified weaknesses in their readiness. The strategies can be used by companies as a process to establish action plans to include in their project preparations.

The combinations of these aspects were used to form the IRP and a method by which companies can apply the information gathered and the metric established by RT294. This product of the research provides general guidance on what are common issues when going to an unfamiliar country and processes to mitigate those, rather than providing specific guidance for each country. The team hopes that the work of RT294 and the IRP will:

- Increase company confidence when planning work abroad by establishing readiness to estimate and bid work in unfamiliar countries,

- Provide gap analysis to help identify risks and provide potential solutions to mitigate those risks, and

- Establish the collection and dissemination of knowledge regarding best practice deployment in unfamiliar countries.

7.1 Recommendations for Future Work

As CII has identified globalization as a key strategic focus. RT294 recommends the continuation of the research team. The work of RT294 benefits CII member companies by facilitating their success as they complete projects in unfamiliar countries and expand into new territories.

The continuation of RT294 can expand the process and the mitigating strategies created by the research team. The continuation of the team will allow the IRP to be updated the as the challenges faced by companies change. The expanded mitigating strategies and processes will provide further benefits to companies as they provide a more comprehensive resource for companies to utilize when planning projects in unfamiliar countries.

The metric within the tool provides an opportunity for benchmarking by companies. By assessing how accurately the tool evaluates their readiness and refining their usage of the tool, companies' usage of the IRP can be refined and then compared to that of other CII member companies. This will help to create a scale by which readiness can be compared to actual project risks.

The users of the IRP would benefit from a database of resources that could help support best practice deployment. The suggested database would include an organized and searchable list of resources and would provide simple information on how to access them and what they contained. These resources would be able to supplement the mitigating strategies with more specific information for project teams as they develop action plans for specific projects in specific countries.

The team also would like to see the CII expand this knowledge area and provide a forum, in which the employees of the member companies can more directly share specific experiences and lessons learned. This recommendation is either for a Wikipedia type of page that would be updated by the CII community or a discussion board area on the CII website, to provide direct exchanges of information. This would allow users to reach out to others who may have already identified and overcome the issue they may be facing.

 The continuation of the work of RT294 has the potential to provide significant benefit to CII member companies as they seek to expand into unfamiliar countries. The expansion of the mitigating strategies provided by the tool is a direct way to continue this issue. However to make CII a leader in globalization in construction there needs to be further development of resources beyond the IRP.

Appendix A: Delphi Study IRB Approval

VirginiaTech

Office of Research Compliance
Institutional Review Board
2000 Kraft Drive, Suite 2000 (0497)
Blacksburg, Virginia 24060
540/231-4606 Fax 540/231-0959
e-mail irb@vt.edu
Website: www.irb.vt.edu

MEMORANDUM

DATE: February 8, 2012

TO: John Taylor, Jesus M. de la Garza, Sara Horsey

FROM: Virginia Tech Institutional Review Board (FWA00000572, expires May 31, 2014)

PROTOCOL TITLE: Deploying Best Practices in Unfamiliar Countries

IRB NUMBER: 12-104

Effective February 7, 2012, the Virginia Tech IRB Chair, Dr. David M. Moore, approved the new protocol for the above-mentioned research protocol.

This approval provides permission to begin the human subject activities outlined in the IRB-approved protocol and supporting documents.

Plans to deviate from the approved protocol and/or supporting documents must be submitted to the IRB as an amendment request and approved by the IRB prior to the implementation of any changes, regardless of how minor, except where necessary to eliminate apparent immediate hazards to the subjects. Report promptly to the IRB any injuries or other unanticipated or adverse events involving risks or harms to human research subjects or others.

All investigators (listed above) are required to comply with the researcher requirements outlined at http://www.irb.vt.edu/pages/responsibilities.htm (please review before the commencement of your research).

PROTOCOL INFORMATION:
Approved as: **Expedited, under 45 CFR 46.110 category(ies) 7**
Protocol Approval Date: 2/7/2012
Protocol Expiration Date: 2/6/2013
Continuing Review Due Date*: 1/23/2013
*Date a Continuing Review application is due to the IRB office if human subject activities covered under this protocol, including data analysis, are to continue beyond the Protocol Expiration Date.

FEDERALLY FUNDED RESEARCH REQUIREMENTS:
Per federally regulations, 45 CFR 46.103(f), the IRB is required to compare all federally funded grant proposals / work statements to the IRB protocol(s) which cover the human research activities included in the proposal / work statement before funds are released. Note that this requirement does not apply to Exempt and Interim IRB protocols, or grants for which VT is not the primary awardee.

The table on the following page indicates whether grant proposals are related to this IRB protocol, and which of the listed proposals, if any, have been compared to this IRB protocol, if required.

Invent the Future

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY
An equal opportunity, affirmative action institution

Appendix B. Delphi Study Expert Recruitment Materials

CII Research Team RT#294
Deploying Best Practices in Unfamiliar Countries

BACKGROUND
The engineering and construction industry is rapidly globalizing. At the same time that this trend is enabling new opportunities, it is also creating new challenges. That is, the well-understood best practices that enable project success in the USA may or may not be deployed successfully in another country. It is critical that project deliverables are met and that projects succeed to capture the value of expanding into new markets. The engineering and construction industry needs processes, metrics and tools to improve the deployment of best practices in unfamiliar countries so as to achieve the intended outcome of the best practice while considering local cultural norms. A key assumption of this research is that users of the new process, metric and tool will already have an understanding of the systematic deployment of such best practices domestically.

PURPOSE
The primary purpose of the proposed research is to develop a best practice to improve CII member company deployment of best practices in unfamiliar countries. The RT will identify the process by which organizations successfully and systematically deploy best practices in unfamiliar countries. The RT will also identify and prioritize the scope of procedures that define the systematic deployment of best practices in unfamiliar countries. The RT will utilize the Delphi technique to elicit expert input.

WHAT IS THE DELPHI TECHNIQUE?
The Delphi method is a structured communication technique which relies on a panel of experts. The experts answer questionnaires in two or more rounds. After each round, a facilitator provides an anonymous summary of the experts' forecasts from the previous round as well as the reasons they provided for their judgments. Thus, experts are encouraged to revise their earlier answers in light of the replies of other members of their panel.

WHO IS AN EXPERT?
The RT has defined an "expert" as an individual who: 1) has at least 10 years of experience managing projects or programs; 2) at least 5 years of that experience involves managing international projects or programs; 3) has experience working internationally for at least 1 year; 4) has experience working in at least 3 countries; and 5) has experience with at least three of the five phases of a project lifecycle.

RT#294 NEEDS YOU!!
We need to find about 60 experts willing to participate in the Delphi study who meet the above mentioned criteria. These should be people who have enough cumulative experience and enough success at best practice deployment in unfamiliar countries to be an appropriate expert for the study.

Appendix C: Combined Delphi Results
C-1: Issues Accepted in Round 1

Round1	Issue	Mean	Median	Mode	Std Deviation	Response Count	Strongly Disagree 1	Disagree 2	Somewhat Disagree 3	Somewhat Agree 4	Agree 5	Strongly Agree 6
1	Differing personal values, ethics, and lifestyle.	5.24	5	5	0.7262	42	0.00%	0.00%	4.76%	2.38%	57.14%	35.71%
4	Differing contractual terms and conditions in local market.	4.88	5	5	0.9927	42	0.00%	2.38%	7.14%	19.05%	42.86%	28.57%
7	Differing level of familiarity with best practices and/or their implementation by the local entities (for example, by labor force, subcontractors).	5.14	5	5	0.7513	42	0.00%	0.00%	2.38%	14.29%	50.00%	33.33%
8	Differing local laws and legal practices external to the project (for example, lack of awareness of local laws).	4.90	5	5	0.8500	42	0.00%	0.00%	4.76%	26.19%	42.86%	26.19%
10	Different regulations specific to foreign businesses (for example, sponsorship, registration, licensing, etc.).	4.93	5	5	0.9211	42	0.00%	2.38%	4.76%	16.67%	50.00%	26.19%
11	Different understanding of how to treat intellectual property.	4.93	5	5	0.7987	43	0.00%	0.00%	4.65%	20.93%	51.16%	23.26%
15	Different local building and construction permit requirements and process for acquisition of permits.	5.12	5	5	0.7931	43	0.00%	0.00%	4.65%	11.63%	51.16%	32.56%
19	Different level of existing physical infrastructure (for example, water, power, transportation).	4.91	5	5	0.8678	43	0.00%	2.33%	2.33%	20.93%	51.16%	23.26%
20	Differing labor laws.	4.72	5	5	0.9083	43	0.00%	4.65%	2.33%	23.26%	55.81%	13.95%
21	Differing levels of concern for environmental issues.	4.76	5	5	0.9055	42	2.38%	0.00%	2.38%	23.81%	57.14%	14.29%
24	Differing local sentiments toward project.	4.67	5	5	0.9017	42	0.00%	4.76%	0.00%	33.33%	47.62%	14.29%
26	Differing regulations on materials procurement (for example, specific vendors that must be used, 'buy local' regulations).	4.71	5	5	0.8913	42	2.38%	0.00%	0.00%	33.33%	50.00%	14.29%
27	Differing relationships and interactions with local government and regulators.	4.90	5	5	0.9055	42	2.38%	0.00%	0.00%	21.43%	54.76%	21.43%
30	Different property management laws (for example, zoning, ownership regulation, property rights, eminent domain, squatter's rights, etc.).	4.50	5	5	0.9690	42	0.00%	7.14%	2.38%	33.33%	47.62%	9.52%
31	Differing safety culture and practices by labor force.	5.29	5	5	0.7741	42	0.00%	2.38%	0.00%	4.76%	52.38%	40.48%
32	Differing logistics for access to job site.	4.69	5	5	0.9497	42	0.00%	4.76%	2.38%	28.57%	47.62%	16.67%
33	Differing political climate and level of political stability.	4.88	5	5	0.7055	42	0.00%	0.00%	2.38%	23.81%	57.14%	16.67%
34	Differing needs for jobsite security.	4.83	5	5	0.7938	42	0.00%	2.38%	4.76%	11.90%	69.05%	11.90%
35	Differing management styles.	4.67	5	5	0.9283	42	0.00%	4.76%	2.38%	28.57%	50.00%	14.29%
36	Different availability and requirements for worker health and safety (for example, predominant diseases, food and clean water access, healthcare).	4.76	5	5	0.8500	42	0.00%	2.38%	4.76%	21.43%	57.14%	14.29%
38	Different ethical standards in conducting business.	4.95	5	5	0.7636	42	0.00%	0.00%	7.14%	9.52%	64.29%	19.05%
39	Different security procedures for travel and living.	4.67	5	5	0.7213	42	0.00%	2.38%	4.76%	19.05%	71.43%	2.38%
40	Visa requirements for expatriate workers.	4.67	5	5	0.9795	42	0.00%	4.76%	7.14%	19.05%	54.76%	14.29%
41	Differing scheduling considerations based on the workforce (for example, prayer times, local holidays).	4.55	5	5	0.8612	42	0.00%	2.38%	9.52%	26.19%	54.76%	7.14%
42	Dealing with currency exchange rates and currency stability.	4.31	4	5	0.9997	42	0.00%	7.14%	9.52%	35.71%	40.48%	7.14%
43	Different cost level incurred due to regulatory process.	4.52	5	5	0.7726	42	0.00%	2.38%	2.38%	42.86%	45.24%	7.14%
44	Existence of cultural clashes between groups working on a project.	4.69	5	5	0.8968	42	0.00%	2.38%	7.14%	23.81%	52.38%	14.29%
45	Differing risk management methodologies (for example, commercial, financial, operational, technical).	4.60	5	5	0.8851	42	0.00%	4.76%	2.38%	30.95%	52.38%	9.52%
46	Differing local economic and market conditions.	4.55	5	5	0.8890	42	0.00%	4.76%	4.76%	28.57%	54.76%	7.14%
47	Different protocol for interactions between companies.	4.38	4.5	5	0.7949	42	0.00%	2.38%	9.52%	38.10%	47.62%	2.38%
48	Dealing with different locally spoken languages.	4.93	5	5	0.7775	42	0.00%	2.38%	0.00%	19.05%	59.52%	19.05%
49	Differing pay rates for local and expatriate labor.	4.52	5	5	0.9687	42	0.00%	4.76%	11.90%	16.67%	59.52%	7.14%
50	Cultural differences in relationships between bosses and employees (i.e., different hierarchical relationships).	4.86	5	5	0.7513	42	0.00%	0.00%	2.38%	28.57%	50.00%	19.05%
51	Differences in local business culture (for example., how things get done, resistance to change, cooperation).	4.86	5	5	0.6833	42	0.00%	0.00%	4.76%	16.67%	66.67%	11.90%
53	Cultural differences in interpersonal interactions.	4.83	5	5	0.4897	42	0.00%	0.00%	0.00%	21.43%	73.81%	4.76%
54	Different support services that need to be provided for expatriate workers.	4.52	5	5	0.8622	42	0.00%	2.38%	11.90%	21.43%	59.52%	4.76%
55	Differing procedures for reacting to an emergency.	4.43	5	5	0.8007	42	0.00%	2.38%	9.52%	33.33%	52.38%	2.38%
56	Differing local norms in the way workers are treated.	4.67	5	5	0.8165	42	0.00%	4.76%	0.00%	26.19%	61.90%	7.14%
57	Different level of existing information infrastructure (for example, telephone, internet, etc.).	4.74	5	5	0.6648	42	0.00%	0.00%	2.38%	30.95%	57.14%	9.52%

C-2: Issues Accepted in Round 2

Round 2 Question #	Issue	Mean	Median	Mode	Standard Deviation	Response Count	1	2	3	4	5	6
1	Reluctance to consider adopting local practices.	4.73	5	5	0.9770	33	0.00%	3.03%	9.09%	18.18%	51.52%	18.18%
2	Different technical capability of locally available engineering workforce.	5.06	5	5	0.7882	33	0.00%	3.03%	0.00%	9.09%	63.64%	24.24%
4	Different levels of clarification needed to meet expectations and achieve outcomes.	5.12	5	5	0.5453	33	0.00%	0.00%	0.00%	9.09%	69.70%	21.21%
5	Different levels of discipline in adhering to project schedules.	4.82	5	5	0.9170	33	0.00%	3.03%	6.06%	15.15%	57.58%	18.18%
6	Different levels of surveillance required for activities of the work force.	5.06	5	5	0.9334	33	0.00%	3.03%	3.03%	12.12%	48.48%	33.33%
7	Different climate and weather considerations.	4.88	5	5	0.8572	33	0.00%	6.06%	0.00%	6.06%	75.76%	12.12%
9	Differences in the local building code from the U.S. code or International Building Code.	4.88	5	5	0.8572	33	0.00%	6.06%	0.00%	6.06%	75.76%	12.12%
11	Differing relationship required with local labor supply and labor groups.	4.94	5	5	0.7475	33	0.00%	0.00%	6.06%	12.12%	63.64%	18.18%
12	Different level of local business competition.	4.85	5	5	0.5658	33	0.00%	0.00%	0.00%	24.24%	66.67%	9.09%
13	Differing understanding of what constitutes a contract (for example, scope definition, terms and conditions).	5.21	5	5	0.6499	33	0.00%	0.00%	3.03%	3.03%	63.64%	30.30%
14	Differing regulations on the importation and exportation of materials and equipment.	5.12	5	5	0.5999	33	0.00%	0.00%	3.03%	3.03%	72.73%	21.21%
15	Differing local availability of materials and equipment.	5.06	5	5	0.6586	33	0.00%	0.00%	3.03%	9.09%	66.67%	21.21%
19	Differing insurance and bonding requirements.	4.18	4	5	0.9828	33	0.00%	6.06%	18.18%	30.30%	42.42%	3.03%
20	Different expectations/requirements for providing infrastructure improvements (for example, housing, roads, schools).	4.73	5	5	0.8013	33	0.00%	0.00%	9.09%	21.21%	57.58%	12.12%
21	Differing availability of local labor.	4.97	5	5	0.6366	33	0.00%	3.03%	0.00%	3.03%	84.85%	9.09%
22	Differing technical skills of locally available labor.	5.09	5	5	0.6784	33	0.00%	3.03%	0.00%	0.00%	78.79%	18.18%
23	Differing regulations relating to the handling of hazardous materials.	4.58	5	5	0.9024	33	0.00%	6.06%	3.03%	24.24%	60.61%	6.06%
24	Different methods for communication (for example, verbal, written, body language).	5.21	5	5	0.6499	33	0.00%	0.00%	3.03%	3.03%	63.64%	30.30%

C-3: Issues Accepted in Round 3

Round 3 Question #	Issue	Mean	Median	Mode	Standard Deviation	Response Count	1	2	3	4	5	6
1	Different engineering expectations/requirements.	5.23	5	5	0.8774	35	0.00%	2.86%	2.86%	2.86%	51.43%	40.00%
2	Different accommodations due to religious practices of labor force (for example, unable to wear hard hats).	4.94	5	5	0.6391	35	0.00%	0.00%	2.86%	14.29%	68.57%	14.29%
3	Differing perceptions of your company reputation by locals.	4.74	5	5	0.7005	35	0.00%	0.00%	8.57%	14.29%	71.43%	5.71%
4	Differences in currency required to be used on a project.	4.77	5	5	0.8075	35	0.00%	2.86%	2.86%	20.00%	62.86%	11.43%
6	Differing restrictions on construction activity at jobsites (for example, limitations on hours when construction activities can proceed).	4.60	5	5	0.6508	35	0.00%	0.00%	8.57%	22.86%	68.57%	0.00%

C-4: Issues Rejected from the Study in Round 3

Round 3 Question #	Issue	Mean	Median	Mode	Standard Deviation	Response Count	1	2	3	4	5	6
5	Differing geological and geographic considerations.	3.97	4	5	1.1754	35	0.00%	20.00%	5.71%	34.29%	37.14%	2.86%

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Appendix D: Uniqueness Modifier Values

Business Customs	
<u>Issue</u>	<u>Uniqueness Value</u>
Differing levels of familiarity with best practices and/or their implementation by local entities; such as the labor force or subcontractors	0.20
Different understanding of how to treat intellectual property	0.33
Differing levels of concern for environmental issues	0.29
Differing relationships and interactions with local government and regulators	0.32
Differing management styles	0.19
Different ethical standards in conducting business.	0.43
Differing risk management methodologies, such as commercial, financial, operational, or technical	0.07
Different protocol for interactions between companies	0.14
Differences in the local business culture, such as how things get done, resistance to change, and cooperation	0.21
Differing local norms in the way workers are treated	0.30
Different engineering expectations and/or requirements	0.43
Different levels of discipline in adhering to project schedules	0.58
Different levels of surveillance required for activities of the work force	0.67

Social and Cultural	
<u>Issue</u>	<u>Uniqueness Value</u>
Differing personal values, ethics, and lifestyles	0.32
Differing local sentiments toward project	0.06
Differing scheduling considerations based on the workforce, such as prayer times, holidays, etc.	0.31
Existence of cultural clashes between groups working on a project	0.24

Cultural differences in relationships between bosses and employees, such as different hierarchal influences	0.40
Cultural differences in interpersonal interactions	0.20
Different accommodations due to religious practices of labor force, such as unwilling/unable to wear hard hats	0.30
Differing perceptions of your company reputation by locals	0.06
Reluctance to consider adopting local practices	0.54

Regulations	
<u>Issue</u>	<u>Uniqueness Value</u>
Different regulations specific to foreign-owned businesses, such as sponsorship, registration, licensing, etc.	0.33
Different local building and construction permit requirements and process for acquisition of permits	0.35
Differing regulations on materials procurement, such as specific vendors that must be used or "buy local" regulations	0.33
Different cost level incurred due to regulatory process	0.12
Differences in the local building code from the Company's Home Country Codes or International Building Code	0.25
Differing regulations on the importation and exportation of materials and equipment.	0.34
Differing restrictions on construction activity at jobsites, such as limitations on hours when construction activities can proceed	0.11
Differing regulations relating to the handling of hazardous materials	0.28

Market and Political Conditions	
<u>Issue</u>	<u>Uniqueness Value</u>
Differing political climate and level of political stability	0.42
Dealing with currency exchange rates and currency stability	0.26
Differing local economic and market conditions	0.27

Different level of local business competition	0.16
Differences in the required project currency	0.57
Different expectations/requirements for providing infrastructure improvements, such as housing, roads, and schools	0.21
Differing availability of local labor	0.62

Geography and Logistics	
<u>Issue</u>	<u>Uniqueness Value</u>
Different levels of existing physical infrastructure, such as water, power, or transportation	0.29
Differing logistics for access to job site	0.31
Different support services that need to be provided for expat workers	0.34
Different level of existing information infrastructure, such as telephone, internet, etc.	0.27
Differing local availability of materials and equipment	0.31
Different climate and weather considerations	0.09

Legal and Contracts	
<u>Issue</u>	<u>Uniqueness Value</u>
Differing contractual terms and conditions in local market	0.28
Differing local laws and legal practices that can affect the project (for example, lack of awareness of local laws)	0.39
Different property management laws (for example, zoning, ownership regulation, property rights, eminent domain, squatter's rights, etc.)	0.21
Visa requirements for expatriate workers	0.33
Differing understanding of what constitutes a contract, such as scope definition and terms and conditions	0.27
Differing insurance and bonding requirements	0.22

Human Resources and Workforce	
Issue	Uniqueness Value
Differing labor laws	0.33
Differing pay rates for local and expat labor	0.29
Differing relationship required with local labor supply and labor groups.	0.29
Differing technical skills of locally available labor.	0.34
Different technical capability of locally available engineering workforce.	0.68

Safety and Security	
Issue	Uniqueness Value
Differing safety culture and practices by labor force	0.54
Differing needs for jobsite security	0.32
Different availability and requirements for worker health and safety, such as predominant diseases, food and clean water access, and healthcare	0.43
Different security procedures for travel and living	0.42
Differing procedures for reacting to an emergency	0.29

Communications	
Issue	Uniqueness Value
Dealing with different, possibly multiple, locally spoken languages	0.37
Different methods for communication, such as verbal, written, or body language	0.35
Different levels of clarification needed to meet expectations and achieve desired outcomes	0.71

Appendix E: Aggregated AHP Results

Business Customs

Issue	Weight
Differing level of familiarity with best practices and/or their implementation by the local entities (for example, by labor force, subcontractors).	5.52%
Different understanding of how to treat intellectual property.	5.38%
Differing levels of concern for environmental issues.	4.44%
Differing relationships and interactions with local government and regulators.	9.11%
Differing management styles.	3.68%
Different ethical standards in conducting business.	12.76%
Differing risk management methodologies (for example, commercial, financial, operational, technical).	6.79%
Different protocol for interactions between companies.	3.99%
Differences in local business culture (for example., how things get done, resistance to change, cooperation).	11.35%
Differing local norms in the way workers are treated.	6.44%
Different engineering expectations/requirements.	12.98%
Different levels of discipline in adhering to project schedules.	11.45%
Different levels of surveillance required for activities of the work force.	6.10%

Consistency Ratio= 0.008

Cultural and Social

Issue	Weight
Differing personal values, ethics, and lifestyle.	11.97%
Differing local sentiments toward project.	8.97%
Differing scheduling considerations based on the workforce (for example, prayer times, local holidays).	9.44%
Existence of cultural clashes between groups working on a project.	14.97%
Cultural differences in relationships between bosses and employees (i.e., different hierarchical relationships).	9.15%
Cultural differences in interpersonal interactions.	11.24%
Different accommodations due to religious practices of labor force (for example, unable to wear hard hats).	11.73%
Differing perceptions of your company reputation by locals.	9.98%
Reluctance to consider adopting local practices.	12.55%

Consistency Ratio= 0.007

Regulations

Issue	Weight
Different regulations specific to foreign businesses (for example, sponsorship, registration, licensing, etc.).	13.29%
Different local building and construction permit requirements and process for acquisition of permits.	14.70%
Differing regulations on materials procurement (for example, specific vendors that must be used, 'buy local' regulations).	12.18%
Different cost level incurred due to regulatory process.	15.47%
Differences in the local building code from the U.S. code or International Building Code.	10.22%
Differing regulations on the importation and exportation of materials and equipment.	12.25%
Differing restrictions on construction activity at jobsites (for example, limitations on hours when construction activities can proceed).	10.71%
Differing regulations relating to the handling of hazardous materials.	11.17%

Consistency Ratio= 0.005

Market and Political Conditions

Issue	Weight
Differing political climate and level of political stability.	26.87%
Dealing with currency exchange rates and currency stability.	9.05%
Differing local economic and market conditions.	14.14%
Different level of local business competition.	10.56%
Differences in currency required to be used on a project.	5.68%
Different expectations/requirements for providing infrastructure improvements (for example, housing, roads, schools).	14.65%
Differing availability of local labor.	19.05%

Consistency Ratio= 0.009

Geography and Logistics

Issue	Weight
Different level of existing physical infrastructure (for example, water, power, transportation).	29.24%
Differing logistics for access to job site.	10.92%
Different support services that need to be provided for expatriate workers.	8.45%
Different level of existing information infrastructure (for example, telephone, internet, etc.).	21.98%
Differing local availability of materials and equipment.	18.92%
Different climate and weather considerations.	10.49%

Consistency Ratio= 0.008

Legal and Contracts

Issue	Weight
Differing contractual terms and conditions in local market.	15.13%
Differing local laws and legal practices external to the project (for example, lack of awareness of local laws).	22.45%
Different property management laws (for example, zoning, ownership regulation, property rights, eminent domain, squatter's rights, etc.).	17.93%
Visa requirements for expatriate workers.	9.07%
Differing understanding of what constitutes a contract (for example., scope definition, terms and conditions).	24.47%
Differing insurance and bonding requirements.	10.94%

Consistency Ratio= 0.004

Human Resources and Workforce

Issue	Weight
Differing labor laws.	19.42%
Differing pay rates for local and expatriate labor.	8.94%
Differing relationship required with local labor supply and labor groups.	14.84%
Differing technical skills of locally available labor.	26.07%
Different technical capability of locally available engineering workforce.	30.73%

Consistency Ratio= 0.004

Safety and Security

Issue	Weight
Differing safety culture and practices by labor force.	22.15%
Differing needs for jobsite security.	13.20%
Different availability and requirements for worker health and safety (for example, predominant diseases, food and clean water access, healthcare).	19.95%
Different security procedures for travel and living.	17.90%
Differing procedures for reacting to an emergency.	26.79%

Consistency Ratio= 0.016

Communications

Issue	Weight
Dealing with different locally spoken languages.	35.30%
Different methods for communication (for example, verbal, written, body language).	30.28%
Different levels of clarification needed to meet expectations and achieve outcomes.	34.42%

Consistency Ratio= 0.001

Business Customs

BC-1	Differing levels of familiarity with best practices and/or their implementation by local entities; such as the labor force or subcontractors.

Have you considered the following items regarding your readiness?		If you have not considered the item, then the following mitigation strategies should be taken into account:
	1- Are there best practices in your company that may not be a practice, or a less detailed practice, in the host country?	Conduct a survey to understand the scope of the local benchmarking of best practices by contacting local entities, established foreign companies with local branches or extensive time in country, specialized websites, and local subcontractors. (1)
		Put in place a formal plan, allowing for the cost of resources, schedule, and training, to implement such best practices where applicable. (1)
	2- Are there best practices in the host country that may not be a practice, or a less detailed practice, in your company?	Conduct surveys and/or meetings with the local workforce to understand the scope of the local best practices. (2)
		Evaluate the effect of existing local best practices and determine if they are within the boundaries of your company's policies. (2)
		Selectively adopt or modify local best practices where needed, keeping in mind that local best practices may be very difficult to influence or change. (2)
	3- Will the best practices from your company be accepted in the host country?	Determine if your company's best practices are legal and/or will be accepted in the host country. (3)
		Select a team with significant experience at working with different cultures to present and train the local workforce on the new best practices. The project team needs to accept the fact that influencing people in a different

	culture can be a lengthy process. (3)

BC-2	**Different understanding of how to treat intellectual property**

Have you considered the following items regarding your readiness?		**If you have not considered the item, then the following mitigation strategies should be taken into account:**
	1- Do you know if the project scope will expose your company's intellectual property (IP)?	Verify with your company's legal counsel the components of the project that are part of the company's IP. (1)
	2- Do you know how IP is treated in the host country?	By working with local entities, local companies, and government agencies, research the country's IP laws and regulations and how they are enforced, if at all. (2)
		Identify the risk exposure of your company's IP and provide the needed level of extra IP protection. (2)
	3- Do you understand that what would be unethical or even illegal in your company's home country might not be an issue in the host country?	Verify with your company's legal counsel what can be or should be added to the shared documents and contracts to further prevent IP infringement. (3)
		Establish in-depth awareness of IP regulations across the project team. (3)
	4- Have the potential consequences of your company's IP being compromised been quantified and assessed?	IP needs to be treated as an asset; your company needs to set up a corporate accounting system to value and track the asset as a part of the risk assessment program. (4)
	5- Does your company have a specific IP plan for the project?	Consult the legal counsel in your company that handles IP and develop plans and rules to protect information. At a minimum, awareness training should be completed. Information should be shared on a need-to-know basis only. Plans and rules need to stress that protecting a company's IP is a condition of employment. (5)

6- Are you partnering with other companies on the project?		Conduct due diligence reviews before partnering. These reviews should include identification of foreign ownership, if any, management control and relationships, and onsite inspection of both home country and the other company's home-country facilities. (6)
7- Do you understand that IP assets exist in many formats?		Teach employees that all IP formats may potentially be compromised; these formats include the following: o paper o electronic o oral o prototypes and models. (7)
8- Are your employees aware of threats to the company's IP?		Train employees to recognize IP threats. These threats may include the following: o deliberate action of current and former employees to appropriate proprietary information o exploitation of trusted relationships with suppliers and customers o data-mining software and social networking. (8)

BC-3 Differing levels of concern for environmental issues

Have you considered the following items regarding your readiness?		If you have not considered the item, then the following mitigation strategies should be taken into account:
1- Do you know and understand the environmental regulations in the host country?		Avail yourself of the existing environmental laws and regulations from the local government and local environmental agencies. (1)
		Conduct meetings and surveys with the local workforce to determine the gap between the laws and the common local practices. (1)
		Verify if and how much the laws are enforced by the local authorities. (1)
		Allow for additional resources and time to train the local workers to follow

			environmental practices. (1)
			Consult with local environmental companies and agencies. (1)
	2- Do you know the necessary process to obtain permits in the host country?		Get the existing permitting process from the local governmental and local environmental agencies. (2)
			Evaluate the effect on the project budget and schedule. (2)
			Survey companies with previous experience in the host country to determine if corruption and unethical practices are part of the culture and therefore, are embedded in the system in such way that could cause delays or extra costs. (2)
	3-Have you assessed the locally available workforce's knowledge of environmental issues in the host country?		Communicate with local unions, labor force entities, and governmental agencies to understand the local workers' cultural levels of concern for environmental issues. Verify their ability to follow the laws and regulations related to environmental issues. (3)
			Confirm the average educational level of the available workforce with the country's state department to help in understanding how much importance the local workforce places on environmental issues. If the local population do not see environmental issues as something that affects their lives, it will be very hard to implement related best practices. Thus, the project team should evaluate the time investment and risks of dealing with a workforce not fully committed to environmental issues. (3)

BC-4	**Differing relationships and interactions with local government and regulators**
Have you considered the following items regarding your readiness?	**If you have not considered the item, then the following mitigation strategies should be taken into account:**

1- Have you identified the political structure in the host country?		Contact the local embassy to gather information on the local political regime, to evaluate the local political stability, and establish the approach strategy in the host country. There are also many resources available through countries' state departments, that can help provide a more complete strategy. (1)
2-Have you identified how much influence and control the government has over the construction industry in the host country?		The construction market in many developing countries is an oligopoly (a few producers affect, but do not control the market), - sometimes with a significant amount of governmental influence and control. Contact local agencies to clarify business practices in this region and avoid any conflict with the local regulators that could cause delays and extra costs to the project. (2)
3- Considering the host country's cultural aspects and the common business practices, have you identified how closely the government and regulators follow local projects in the host country?		Conduct meetings and surveys with the local workforce, local agencies, and other entities and constituencies to understand how the cultural aspects of the host country affect the way business is done. (3)
		Conducting meetings and surveys with the local workforce and local agencies builds good relationships with local regulators, such outreach may help prevent conflicts, delays, unexpected costs, and other problems. (3)
4- Are you aware of any local content requirements established by the government for new projects in the host country?		Contact officials of the local government to verify the existence of local content requirements when executing a project in the host country. (4)
		Establish the proper sourcing strategy in advance so that they align with any existing content requirements established by the local government in the host country. (4)

BC-5 Differing management styles

Have you considered the following items regarding your readiness?	If you have not considered the item, then the following mitigation strategies should be taken into account:

	1- Have you evaluated the types of supervisor-employee relationships (e.g., micromanagement, imposed, or friendly) in the host country? An understanding of the differing management styles and approaches to business between the cultures is very important when selecting the project team.	Conduct benchmark studies, surveys, and interviews with the local workforce to understand the cultural aspects of the supervisor-employee relationship that need to be considered when selecting the project team. (1)
	2- Do you know and understand the seniority effect on the supervisor-employee relationship in the host country? For example, in some cultures, employees will not accept or will be resistant to bosses younger than themselves.	Conduct survey and interviews with the local workforce to understand the cultural aspects of the supervisor/employee relationship in order to identify the right set of people skills and leadership/management skills when selecting the project team. (1,2)
		Implement a specific training plan to establish what is acceptable and expected for supervisor and subordinate relationships. (1,2)

BC-6	Different ethical standards in conducting business	
Have you considered the following items regarding your readiness?		**If you have not considered the item, then the following mitigation strategies should be taken into account:**
	1- Have you investigated the local ethics standard based on the cultural background of the host country?	To understand the ethical standards based on the local cultural background, conduct surveys and benchmark studies by contacting local chambers of commerce, consular offices, and local companies. (1)
	2- Have you heard or determined "how things get done" in the host country?	Conduct surveys and benchmark studies, and consult with local companies to understand the overall business attitude and cultural influences in the host country. When it comes to ethics, you want to make the project move forward smoothly; at the same time it is important not to jeopardize or compromise the project by doing something illegal. (2)

	3- Do you know and understand the line between illegal versus unethical practices in the host country?		Conduct surveys and benchmark studies, and consult with local companies to understand the overall business attitude and cultural influences of the host country regarding ethics. For example, in some countries, bribery is a common practice if you want to get things done faster or even done at all. Salary levels in some developing countries are so low that workers already expect to earn some extra money when hired for a project. Or, bureaucracy backlogs are so high that local agencies will accept extra money to get paperwork done faster. In some countries, the corruption at the governmental level is so high that the population is tainted to the point that doing things in an unethical or even illegal way is not a rare event, nor is it seen as problematic. Exchanging favors or facilitating activities are other forms of practices that may not be considered unethical in some countries. It is critical that your company evaluate these ethical questions and determine a path forward that aligns with your company's policies. (3)

BC-7	**Differing risk management methodologies, such as commercial, financial, operational, or technical**		
Have you considered the following items regarding your readiness?		**If you have not considered the item, then the following mitigation strategies should be taken into account:**	
	1- Is there an awareness of a specific risk (e.g., commercial, financial, operational, or technical) for the host country?		Set up a risk steering committee that is staffed with risk management professionals, or that consults with an outside risk management group. Conduct standardized risk management training. (1)

		Create a risk categorization model to address the spectrum of a business' enterprise objectives and common language: o strategic o operative o financial o compliance. (2)
	2- Are there consistent risk management categories?	
	3- Do you have an endorsed plan to ensure the accountability of differing risk management methodologies?	Assess owner's risk process competencies. Develop a plan to coordinate responsibilities for managing a specific risk. Track the plan. (3)
		Develop risk response plans that document root causes of the risk(s), develop accepted analysis methodology (e.g., TapRoot, Apollo, 5Y, or 6M) and signatory agreement. (3)
		Implement monitoring to observe the development trend of assigned risks, and provide a plan for implementation status reports. (3)
	4- Have risk management practices been standardized?	Risk management process: o identify o assess o respond o monitor o report/escalate o sustain/continuously improve (1,4)

BC-8	Different protocol for interactions between companies	
Have you considered the following items regarding your readiness?		**If you have not considered the item, then the following mitigation strategies should be taken into account:**
	1- Do you have a process identified to recognize that individual companies you are working with may have developed internal protocols based on past experiences (successful or challenged), regulations, results of M&A, among other considerations?	Hold alignment strategy sessions to review "same-thinking" and commonalities; define communication procedures. (1)

	2- Have differences in interactions been identified from strategy sessions?	Create an inter-company agreement that recognizes that, while the goals may be the same, the means to achieving them may be different. (2)
	3- Knowing that there may be cultural differences with expected interactions, have you set up an agreement on the approach? These differences may include the following: o native expectations o informal o response to change o scheduled, no agreement required (i.e., status only) o scheduled, agreement necessary via escalation o external-facing (joint view to client, media, other stakeholders).	Create an interaction agreement. Identify the following elements: o purpose o scope o applicability o inter-organizational levels of interactions o mentoring of affected personnel on the protocols at each level o performance monitoring. (3)

BC-9	Differences in the local business culture, such as how things get done, resistance to change, and cooperation		
Have you considered the following items regarding your readiness?		**If you have not considered the item, then the following mitigation strategies should be taken into account:**	
	1- Do you understand that business cultures may rely on several inputs and experience bases? When deploying to host countries, you are, by default, starting from scratch; you should understand that there are differences that will need to be identified and turned to mutual advantage.		Develop a starting-from-scratch mentality by being aware of and adapting to the local business culture and the local management culture. (1)
			Consider a recruitment strategy that involves embedding locals into the team. (1)
	2- Is there a system in place to utilize locals to interpret the business culture's differences?		Identify local persons who can act as neutral agents in interpreting local business customs. (2)

			Provide training to demonstrate the differences in reactions between local cultures and the company. (2)
	3-Determine the inherent cultural triggers that may affect the project outcome?		Develop a process for enculturation/socialization. Learning how to conduct business in the host country may include the following: o exploration of how consumers behave o observation of people in subordinate and management positions o observation of consumer behavior – is there brand loyalty? o understanding of local concepts of time and schedule o identification of other global, trusted organizations and sources for partnering (e.g., banking institutions, U.S. Dept. of State, and embassies). (3)

BC-10	Differing local norms in the way workers are treated		
Have you considered the following items regarding your readiness?		**If you have not considered the item, then the following mitigation strategies should be taken into account:**	
	1- Is there recognition of differences in local norms for employee treatment?		Use local labor advocacy groups to establish an understanding of norms for worker treatment. (1)
			Embrace local culture while at the same time presenting a vision for team alignment. Alignment will be a lengthy process, and you might easily find yourselves adapting your own standards. (1)
	2- Is there an understanding of how the local worker base sees value in individual versus collective treatment and a sense of belonging?		Establish the value of belonging by using heavy internal branding and identification of employees that conform to the corporate values without diminishing the value of local input to the corporate norms. (2)

3- Are you aware of cultural factors shaping the worker expectations of treatment (e.g., family, community, medical, or religion)?	Contact local government agencies and business associations to find out which demographic data they can provide for the geographic area. In addition to these sources, local schools know of new arrivals in the community. Healthcare professionals have valuable insight about the situations of local subgroups that are not well integrated into the health care system. (3)
	Visit local community centers and gathering spots such as grocery stores and schools that teach in native languages. (3)
	Seeking the assistance of community leaders to assess community needs is essential. To begin building professional relationships, one should first ask for help from community leaders to understand a culture; for example, if a substantial number of potential employees practice Buddhism. Become aware of relevant community resources for referrals to ancillary support services. (3)

BC-11	Different engineering expectations and/or requirements	
Have you considered the following items regarding your readiness?		**If you have not considered the item, then the following mitigation strategies should be taken into account:**
	1- Are you aware if Recognized and Generally Accepted Good Engineering Practices are followed in the host country?	Offer examples and agreements. (1)
		Recommend which Recognized and Generally Accepted Good Engineering Practices the owner should use. (1)
		Assist in assembling documentation of Recognized and Generally Accepted Good Engineering Practices. (1)
		Develop implementation plans for Recognized and Generally Accepted Good Engineering Practices. (1)

	Have you considered the following items regarding your readiness?		If you have not considered the item, then the following mitigation strategies should be taken into account:
			Establish a plan to train locals in the Recognized and Generally Accepted Good Engineering Practices. Local engineering sign-off may be required. It doesn't matter how good you think you are; they may want local ownership of the project. This may mean a lengthy education process. (1)
	2- Are you familiar with the relevant established codes, standards, published technical reports, or recommended practices?		Have the project engineering team provide baseline documentation for Recognized and Generally Accepted Good Engineering Practices. (2)
	3- Do the local Recognized and Generally Accepted Good Engineering Practices detail generally approved ways to perform specific engineering, inspection, or mechanical integrity activities?		Write contractual bid specifications and packages to insure that the construction meets applicable Recognized and Generally Accepted Good Engineering Practices. (3)
	4- Are you implementing ideas that have not been a part of historical practice at a facility and that may meet resistance because they have been implemented another way for many years, and doing so has "not killed us yet"?		Develop inspection and testing programs to identify practice benchmarks. This establishes what is acceptable and removes ambiguity in expectations. (4)
	5- Does the local workforce understand the use of "manufacturer's recommendations"?		Perform auditing to evaluate and encourage compliance. (5)

BC-12	**Different levels of discipline in adhering to project schedules**

Have you considered the following items regarding your readiness?		**If you have not considered the item, then the following mitigation strategies should be taken into account:**
	1- Have you considered the ability to influence and evaluate employee motivation?		Use employee perception surveys to gain input and understanding of perceived obstacles. (1)

	2- Have local customs regarding time management been addressed? For example, micro-management versus macro-management.	Identify the local time management style, plan on educating the top tiers of managers to explain the importance of adhering to the schedule, and identify appropriate enforcement procedures. (2)
	3- Have you addressed how to keep the project team focused and how to prevent diversion of attention to other priorities (e.g., schedule connected to customer satisfaction of total project outcome)?	Have one-to-one dialogues to provide private feedback and discuss the importance of keeping the project team focused. (3)
	4- Does a blame culture exist?	Utilize internal incentives versus external incentive programs. These need not be monetary, you will need to be creative and work together. Team building and/or team work is often found lacking but if addressed and implemented will have a big effect. (4)
	5- Is there a method in place for addressing possible unethical behavior when the schedule is represented?	Use standardized tracking tools and software. Management needs to be able to analyze and drill down high-level data to understandable actions. An example would be software tracking of schedule variations to show modification effects, reasons, and links to other events that may influence the schedule. (5)
	6- Are you aware of the local competencies regarding project controls?	Move from a simple area- or time-based schedule to system integration of cost and time. Consider using the earned-value method for analyzing the schedule. (6)

BC-13	Different levels of surveillance required for activities of the workforce	
Have you considered the following items regarding your readiness?		**If you have not considered the item, then the following mitigation strategies should be taken into account:**
	1- Is there an understanding of communication activities that may need to be monitored, such as telephone, computer, e-, v-, or p-mail, social media, video, biometrics, or workplace privacy?	Develop a communication policy and training for employee conduct by means of the employee handbooks. (1)
	2- Are there consistent approaches to monitoring employees, regardless of position in the company? The monitoring may cause employees to question trust, and, thus cannot appear to be biased or targeted.	Conduct a gap analysis on equivalency of laws and standards regarding the approach to surveillance, (e.g., the Electronic Communications Privacy Act 18 USC 2510; or the Privacy and Personal Information Protection Act of Australia – NSW). (2)
	3- Is there an understanding of the employee's perception of intrusive monitoring of employee behavior versus non-intrusive, clandestine approaches? Is there an understanding of the performance effects of both approaches?	Seek authorization from local law enforcement agencies, as required (e.g., National Data Protection Authority – Portugal). (3)
		Turn surveillance into a positive experience. Regular peer group feedback is a way of having teams comment on how they are performing without always looking for surveillance results. Adopt a constructive approach rather than utilizing critical, big brother-type surveillance.(3)
	4- Is there an understanding of the use of technology preferred by employees and of its effect on the project?	Measure employee satisfaction and perception of personal and physical security, and include the connection to data security and competeveness in the marketplace by individual responsibility to corporate IP. By allowing employees to use technology that they prefer, as long as it is in compliance with company policies, there can be a gain in employee satisfaction and an increase in the ability to attract and retain employees. (4)

Social and Cultural

SC-1	Differing personal values, ethics, and lifestyles	
Have you considered the following items regarding your readiness?		**If you have not considered the item, then the following mitigation strategies should be taken into account:**
	1- Do you know the local labor views and regulations on overtime, vacations, and holidays?	Meet with local human resources and labor leaders to understand local holidays and work hour norms. (1)
		Establish agreements with employees and contractors on work days and hours. (1)
		Develop a project schedule, taking local and expatriate practices into consideration. (1)
	2- Do you know if tributes, gifts, or other compensation is part of the way that business gets done in the host country?	Work with your company's leadership to develop an aligned compliance response to address the compensation expectations, ensuring that they are consistent with your company's ethics policy, the laws of the host country, and your company's home country. (2,3)
	3- Is there a perceived or potential conflict between your company's guiding principles, values, and expectations and the local culture's?	Investigate local norms to determine level of alignment with company values and ethics. (3)
	4- Are you familiar with local religions and religious holidays?	Discover any potential tensions that may exist between religious factions. (4)
		Ensure that high-risk and schedule-driven activities are planned around local and expatriate public and religious holidays. (4)
	5- Have you considered how people view and value time spent in the office versus their	Evaluate role-based work flexibility options. (5)
		Clarify company policy to value actual contributions over face time in the office,

	productivity?	using scheduled, clearly defined deliverables. (5)
		Ensure people know their roles, responsibilities, and expected deliverables. (5)
	6 - Have you considered requiring formal documentation for tributes and gifts?	Ensure that you know about and define in writing the types and frequency of documentation required by your company or host country, for receiving or giving tributes or gifts. (6)
	7 - Are you familiar with the communication styles of the host country, such as verbal or written?	This will vary. Investigate whether informal email could be perceived as offensive, condescending, or otherwise undesirable. (7)
		Establish guidelines for acceptable forms of communication. (7)

SC-2	Differing local sentiments towards the project

Have you considered the following items regarding your readiness?		If you have not considered the item, then the following mitigation strategies should be taken into account:
	1- Do you know the local labor views and regulations on overtime, vacations, and holidays?	Investigate the local attitudes, practices, and prevalence of preferential treatment in hiring and promotion decisions. (1)
		Develop a hiring approach that is consistent with local norms and aligned with your company's values and guidelines. (1)
		Consider using a disclosure agreement to make the company aware of potential conflicts. (1)
	2- Do you know if tributes, gifts, or other compensation is part of the way that business gets done in the host country?	Determine whether there are laws that impede or limit the use of foreign personnel. (2)
		Investigate the capabilities of the local labor force. Do not assume that the qualified skills are only available from expatriates. (2)
		Prioritize the local market to employ project and construction personnel where possible. (2)

SC-3	**Differing scheduling considerations based on the workforce, such as prayer times, holidays, etc.**		
Have you considered the following items regarding your readiness?		**If you have not considered the item, then the following mitigation strategies should be taken into account:**	
	1- Do you understand how local labor views working overtime and taking vacation and holidays off?		Meet with local human resources and labor leaders to understand local holidays and work hour norms. (1)
			Establish agreements with employees and contractors to gain alignment on workdays, hours, and vacations. (1)
			Develop a project schedule that considers local and expatriate practices. (1)
	2- Are you aware of the host government's approach to scheduled holidays? Do you know if holidays are ever moved or extended, making a weekend day a working day? Are there unofficial but "traditional" holidays?		Gain an understanding of how local and/or national holidays are scheduled, including the likelihood and effect of last-minute changes. Create flexibility around likely holidays. (2)
	3- Are local and expatriate religious holidays and practices accounted for in the work environment and project schedule?		Project schedules should consider and allow for the holidays of all religions represented in the workforce. (3)
	4 - Is there an understanding of productivity levels for the country/region?		Be sure you are clear on the term productivity and how locals view various productivity levels. (4)

SC-4	**Existence of cultural clashes between groups working on a project**		
Have you considered the following items regarding your readiness?		**If you have not considered the item, then the following mitigation strategies should be taken into account:**	
	1- Is cultural sensitivity training provided to locals and expatriate workers?		Provide cultural sensitivity training to locals and expatriate workers to encourage respect among diverse and foreign cultures. (1)

2- Are you aware of local attitudes toward women and minorities?		Clarify your company's human resources policy regarding women and minorities, and provide appropriate training and documentation as required. (2)
3- Is there a plan for engaging locals in ways that encourage their creativity and input?		Do not assume that "our way is the best way." Engage locals to understand how they would do things. Collaborate to determine and select the "best" ways to create win-win situations. (3)

SC-5	Cultural differences in relationships between bosses and employees, such as different hierarchal influences

Have you considered the following items regarding your readiness?		If you have not considered the item, then the following mitigation strategies should be taken into account:
1- Do you know if there are cultural differences between the way authority is viewed locally compared to by your company?		Investigate the cultural differences in authority before making changes to how things are done. (1)
		Conduct new leader assimilation sessions – leadership training. (1)
2- Do you have a clear understanding of how hierarchical position relates to power, communications, and decision making in the host country?		Identify the extent of the effect of power distribution in the host country, and establish other means of communication, such as written, online "wiki," and collaborative on-line worksites. (2)
3- Has the work group, both the leaders and employees - forged a common vision and an aligned objective?		Use a facilitated team development process to build a common work culture with alignment of vision and objectives. (3)
4- Have roles and responsibilities and mutual accountabilities been clearly articulated and agreed upon?		Use a facilitated team development process to build a common understanding of roles, responsibilities, and accountabilities. (4)
5- Have you identified whether locals will respect the authority of managers and supervisors?		Determine whether locals respect a vertical management hierarchy or whether they prefer a flatter organizational structure; adjust managerial practices accordingly. (5)

SC-6	Cultural differences in interpersonal relationships		
Have you considered the following items regarding your readiness?		**If you have not considered the item, then the following mitigation strategies should be taken into account:**	
	1- Have you identified whether your company's employees have been trained to understand differing work styles?		Conduct personality surveys (e.g., DISC, e-colors, Meyers Briggs, Producing Results with Others), to help for employees and employers understand and modify their styles. (1)

SC-7	Different accommodations due to religious practices of labor force, such as unwilling/unable to wear hard hats		
Have you considered the following items regarding your readiness?		**If you have not considered the item, then the following mitigation strategies should be taken into account:**	
	1- Are there any modifications needed to the facilities or schedule to allow for religious practices (e.g., prayer rooms or prayer time)?		Investigate the need and provide accommodations, if appropriate. For example, prayer rooms located in close proximity to the workplace for Muslim workers, and the Sikh prohibition on wearing hardhats for religious reasons. (1)
			Know the local religious holidays and their impact on workers. For example, in Muslim countries, workers cannot eat or drink from sunrise to sundown during Ramadan. (1)
			Check to see which religious faiths are practiced within the workforce, and whether there are any implications for personal protective equipment (PPE). No compromise on worker safety should be allowed, even if other companies are flexible with PPE. Complying with safety expectations should be a condition of employment. (1)
			Ensure that ethnic and/or religious groups that are historically in conflict with each other are not made to work in close proximity. (1)
	2- Do you have a plan to ensure that meals are served to meet differing needs, such as kosher, vegan, vegetarian, and gluten-		Investigate to see what other businesses have done, and mirror their approach to providing access to meals that address the needs of the population (e.g., kosher, vegan, gluten-free,

	free?	etc.). (2)

SC-8 — Differing perception of your company's reputation by locals

Have you considered the following items regarding your readiness?		If you have not considered the item, then the following mitigation strategies should be taken into account:
	1- Have corporate advertising and other outreach communications been geared toward the local community, or is it too generically "corporate"?	Engage local stakeholder and communications experts to ensure that advertising and other company communications are geared toward the local community (e.g., include local content, pictures of the local community to avoid being too "corporate"). (1)
	2- Has the company engaged the local community to understand its perception of the company/project?	Develop a cohesive message that you want sent out to the local government and community. Utilize local media, company intra-net, internet, focus groups, and community town hall meetings to convey the desired message, and to understand the needs and concerns of the local community. (2)
		Engage local governmental officials directly to understand and improve their perception of the company/project. (2)

SC-9 — Reluctance to consider adopting local practices

Have you considered the following items regarding your readiness?		If you have not considered the item, then the following mitigation strategies should be taken into account:
	1- Is there a plan for evaluating local practices before implementing new practices?	Create a process for evaluating local practices. Ask questions, since things may be done differently for valid reasons, or people are trying and do not realize that there may be a different way work. Before making changes to the local practice, try to understand why the local system is in place. (1)
	2- Have you identified which differences between the local practices and company practices	Implement cultural awareness training to foster understanding and alleviate any resistance to change. (2)

	are most likely to be difficult to address?	
	3- Is there a process in place to determine the experience level of expatriate workers and their comfort with and adaptability to working abroad?	Train expatriate workers in advance to ensure that they have a cultural understanding of the country to which they are going. Convey the expectation that they will need to adapt to customs; also convey the expectation that the local community will be trying to adopt corporate culture and practices. (3)

Regulations

R-1	**Different regulations specific to foreign-owned businesses, such as sponsorship, registration, and licensing.**
Have you considered the following items regarding your readiness?	**If you have not considered the item, then the following mitigation strategies should be taken into account:**

	1- Have you identified in-house competency and capability regarding regulations and requirements specific to any foreign-owned business operations that are relevant to the project?		Conduct a survey of employees and/or business units to identify gaps and needs for additional regulatory support. (1)
			Contact business partners, suppliers, affiliated businesses, or others that may be familiar with regulations in the country that are specific to foreign-owned businesses. (1)
			Contact your company's home country embassy, if available in the host country, to obtain information on regulations for foreign-owned businesses and related resource information. (1)
	2- Do you require external resources to provide services regarding regulations specific to foreign-owned businesses?		Hire a knowledgeable in-country consultant with expertise in local regulations, registration, and tax codes that is aligned with your business operations. (2)

R-2	**Different local building and construction permit requirements and process for acquisition of permits**
Have you considered the following items regarding your readiness?	**If you have not considered the item, then the following mitigation strategies should be taken into account:**

	1- Have you identified in-house competency regarding local building and construction permit requirements relevant to the project? Do you require external resources to provide services for determining and processing		Conduct a survey of employees and business units to identify gaps and needs for additional support. (1)
			Contact and meet with local governing building departments to review and obtain permitting requirements and to document process steps. (1)

	construction and building permitting requirements?		Hire a consultant, or an in-country permanent employee, with knowledge of and experience with the host country's construction and building permit requirements. This expertise should apply to related items, such as occupancy permits, signage permits, processing fees, and approval durations. (1, 2, 3)
	2- Do you have access to the regulations for construction and building permitting and processing requirements?		Contact and meet with local governing building departments to review and obtain permitting requirements and process-steps documentation. If necessary, hire a local representative who understands and speaks the local language and dialect. (2)
			Contact business partners, suppliers, affiliated businesses, and others familiar with the in-country regulations regarding permits. (2)
			Contact your company's home country's embassy, if available in the host country, to obtain information on construction and building permitting regulations and related resource information. (2)
	3- Do you understand the permitting requirements, acquisition process, and local rules?		Hire a consultant with knowledge of the unfamiliar country's construction/building permit requirements, including related items, such as occupancy permits, signage permits, processing fees, and approval durations. (3)
			Have a legal team familiar with local permitting processes review permitting documents. (3)

R-3	Differing regulations on materials procurement, such as specific vendors that must be used, or "buy local" regulations		
Have you considered the following items regarding your readiness?		**If you have not considered the item, then the following mitigation strategies should be taken into account:**	
	1- Have you identified in-house competency regarding any procurement regulations and		Conduct a survey of employees and business units to identify gaps and needs for additional support. (1)

	requirements relevant to the project?	Contact business partners, suppliers, affiliated businesses, and those familiar with the in-country regulations regarding materials procurement. (1)
		Contact your company's home country's embassy, if available in the host country, to obtain information on materials procurement regulations and related resource information. (1)
	2- Do you require external resources to provide services for procurement regulations and requirements?	Hire a consultant, or an in-country permanent employee, with knowledge of and experience with the host country's procurement regulations (1,2)
	3- Have you investigated how your company might leverage its global supply chain model, given the specific regulatory requirements of this country?	Work with your company's internal supply chain organization to leverage master supplier contracts, where applicable, with local regulations. (3)

R-4	Different cost level incurred due to regulatory process

Have you considered the following items regarding your readiness?		If you have not considered the item, then the following mitigation strategies should be taken into account:
	1- Have you identified in-house competency regarding any regulatory requirements relevant to the project?	Conduct a survey of employees and business units, to identify gaps and any needs for additional support. (1)
		Contact business partners, suppliers, affiliated businesses, and others that are familiar with the regulations in the host country and their cost effects. (1)
		Hire a consultant with knowledge of and experience with the host country's regulatory requirements including related items such as cost effects and local requirements. (1)
		Evaluate the regulatory plan based on business drivers, and perform a gap analysis of in-country regulatory requirements. (1)

| | 2- Have you investigated how your company might leverage its global supply chain model, given the specific regulatory requirements of this country? | | Work with the internal supply chain organization to leverage master supplier contracts, where applicable, with local regulations. (2) |

R-5	**Differences in the local building code from the Company's Home Country Codes or International Building Code**

Have you considered the following items regarding your readiness?			**If you have not considered the item, then the following mitigation strategies should be taken into account:**
	1- Have you identified in-house competency regarding local building codes relevant to the project?		Conduct a survey of employees and business units and identify gaps and needs for additional support with local building code competency. (1)
			Complete a preliminary Internet code search, if a qualified person is available, and identify gaps and needs for additional support. (1)
			Contact local governing building departments to obtain a list of local applicable codes. (1)
			Contact business partners, suppliers, affiliated businesses, and others that are familiar with the local building codes. (1)
			Contact your company's home country's embassy, if available in the host country, to obtain information on local building codes and related resource information. (1)
	2- Do you require external resources to provide services for local building codes relevant to the project?		Hire a consultant or permanent in-country employee with knowledge of and experience with building codes in the host country. Perform a gap analysis, identifying differences, including cost, quality, and schedule effects. (2)

R-6	**Differing regulations on the importation and exportation of materials and equipment**

Have you considered the following items regarding your readiness?	**If you have not considered the item, then the following mitigation strategies should be taken into account:**

		Conduct a survey of employees and business units, and identify gaps and needs for additional support. (1)
	1- Have you identified in-house competency regarding import/export regulations on materials and equipment relevant to the project?	Contact business partners, suppliers, affiliated businesses, and others familiar with the in-country import/export regulations on materials and equipment. (1)
		Contact your company's home country's embassy, if available in the host country, to obtain import/export information and resource sources. (1)
		Contact local governing bodies to obtain a list of applicable local import/export regulations and requirements. (1)
		Prepare clear documentation to define your company's intended import/export plan, execution strategy, and final operation. (1)
	2- Do you require external resources to provide services regarding import/export regulations on materials and equipment relevant to the project?	Hire a consultant with knowledge of and experience with the host country's import/export regulations, rules, taxes, duties, business norms and customs, sourcing, and cost and/or schedule effects. (2)
	3- Have you investigated how your company might leverage its global supply chain model, given the specific regulatory requirements of this country?	Work with an internal supply chain organization to leverage master supplier contracts, where possible under local regulations.(3)

R-7	Differing restrictions on construction activity at jobsites, such as limitations on hours during which construction activities can proceed

Have you considered the following items regarding your readiness?		If you have not considered the item, then the following mitigation strategies should be taken into account:
	1- Have you identified in-house competencies regarding construction operations	Conduct a survey of employees and business units, and identify gaps and needs for additional support. (1)

	requirements relevant to the project?		Contact business partners, suppliers, affiliated businesses, and others familiar with the host country's construction regulations and requirements. (1)
			Contact your company's home country's embassy, if available in the host country, to obtain construction information and resource sources. (1)
			Contact local governing bodies to obtain a list of applicable regulations and requirements. (1)
	2- Do you require external resources to provide services regarding construction operations requirements relevant to the project?		Hire an in-country consultant with knowledge and expertise in construction and local requirements. (1,2)

R-8	Differing regulations relating to the handling of hazardous materials		
Have you considered the following items regarding your readiness?		**If you have not considered the item, then the following mitigation strategies should be taken into account:**	
	1- Have you identified in-house competency regarding regulations for the handling of hazardous materials relevant to the project?		Conduct a survey of employees and business units, and identify gaps and needs for additional support. (1)
			Contact your company's home country's embassy, if available in the host country, to obtain regulations on the handling of hazardous materials. (1)
			Contact local governing bodies to obtain a list of applicable regulations and requirements. (1)
			Prepare clear documentation to highlight your company's intended operations. (1)
			Contact business partners, suppliers, affiliated businesses, and others familiar with the in-country regulations regarding the handling of hazardous materials. (1,2)

| | | | Hire an in-country, permanent company employee or consultant, with knowledge of and in-country expertise in materials handling regulations, including Environment, Health, and Safety (EH&S). (1, 2) |
| | 2- Do you need external resources to provide services required by the regulations for handling of hazardous materials relevant to the project? | | Hire a consultant with expertise in the materials handling regulations and EH&S. Perform an analysis and identify differences, including cost, quality, and schedule effects. (2) |

Market and Political Conditions

MPC-1	**Differing political climate and level of political stability**		
Have you considered the following items regarding your readiness?		**If you have not considered the item, then the following mitigation strategies should be taken into account:**	
	1- Is there potential instability in the local political climate or with the current regime (e.g., republic, democracy, dictatorship, or kingdom)?		Check the status of the host country and political history by consulting with government state departments, direct consular contact in country, United Nations indices, etc. (1)
	2- Have you looked at studies conducted within your country and in the market place concerning the current stability of the political climate in the host country and its government's potential response?		Review studies regarding stability and change potential of the host country initiated from universities and other think tank organizations. Consider both funded studies and free information. (2)
	3- Are you aware of the global opinion of the political climate? Have you taken into consideration how other countries view the potential host country?		Gather the world opinion on the political stability of the country in question, using sources such as news organizations, individual state departments, or global university studies (3)
	4- Do you know the current position of the host country with respect to the United Nations, such as favored status, or under active or potential sanctions?		Investigate the host country's United Nations status with particular regard to economic sanctions and embargoes, both potential and actual. (4)

MPC-2	**Dealing with currency exchange rates and currency stability**		
Have you considered the following items regarding your readiness?		**If you have not considered the item, then the following mitigation strategies should be taken into account:**	

	1- Are you aware of any fluctuations in local exchange rates, and have you considered how such fluctuations can affect the project?		Compile accurate economic forecasts, which are essential to determining the rate to be used as the mean point for the project monetary base. (1)
			Establish a monitoring system of exchange rate changes. Use adjusted currency accordingly when reporting project financials. (1)
			Investigate the long-term economic stability of both the local and regional currencies. (1)
			Break the project's contractual requirements into smaller contracts running for shorter periods to reduce risk. This may allow for recovery through contract negotiation for variable currency rates. (1)
			Ensure that there is an understanding of the risks associated with currency fluctuations. Create a plan to minimize risk in line with company policy. (1)
	2- Are there requirements to use local currency instead of home country currency? Do you know how such requirements can affect a project's financial status?		Investigate the stability of the country's local currency and financial situation. It may be possible to use a type of insurance bond to insure against a currency default; assess whether an insurance bond is applicable. (2)
			Risk can be minimized by pre-paying long-lead items to avoid currency escalation. However, the converse is possible also – you can maximize risk by pre-paying only to then see the currency de-escalate. Determine which, if either, or a combination of these strategies is best for your project.(2)
			Establish procedures for reacting to instabilities in the local currency. If the project is required to or has decided to utilize local currency for procurement, and if the local economy then changes rapidly, issues will evolve. If this is the case, the contractor must continually consider varying local conditions, and act accordingly. (2,3)

3- Have you considered project procurement cost changes due to currency rate fluctuations and how to monitor them?		Monitor currency fluctuations and the potential effect on procurement costs. (3)
		Consider buying out contracts as early as possible. This will stabilize procurement costs to reduce the effect of negative fluctuations. Again, the converse is also a possibility. (3)
4- Have you considered a strategy of hedging contracts to protect project financials from rate fluctuations?		Consider hedging contracts. The strategy of attempting to hedge one contract with another may work in some circumstances in which the supplier is in the same or similar situation. (4)
5- Have you considered how the instability of local currency could negatively affect project financials?		Consider using a more stable currency or your company's home currency for major purchases. (5)

MPC-3 — Differing political climate and level of political stability

Have you considered the following items regarding your readiness?		If you have not considered the item, then the following mitigation strategies should be taken into account:
1- Are you aware of any local economic conditions in the host country that can create false impressions and result in incorrect decision making?		Assessing the differences between the home country and the host country are essential to proper decision making. For example, the contractor may need to use a barter system of purchase and payment instead of currency. (1)
2- Have you considered the effect of the local economic conditions on project costs? For example, contractors may not remain viable (i.e. financially able to perform for the life of the contract), or material availability may decline.		Establish a process to monitor local economic conditions using a group of defined, local economic, and market indicators; changes in these indicators may affect the project completion requirement and cost. Constant monitoring of these factors is the most practical means of having the information readily at hand to make better decisions for the project. (2)

MPC-4 — Different level of local business competition

Have you considered the following items regarding your readiness?		If you have not considered the item, then the following mitigation strategies should be taken into account:

			Expect ways and practices that differ from those in your home country. What is considered unethical in your home county may be perfectly acceptable in the host country, and the exact opposite may also apply. The recommendation is to learn and understand as much as possible up front before acting upon the project or even discussing doing business in the area. (1)
	1- Have you considered that what is acceptable at home maybe be unethical or unacceptable in the host country?		Fully understand the culture, market, and business climate of the project country. Seek local business relationships, knowledgeable local employees, professional translators, and cultural advisors. Do not assume, always do a complete due diligence, and think the entire subject through, checking as necessary with your in-house experts. (1)
			Develop market data concerning who is in the market; exposing potential partnerships early can diffuse any significant competitive threats – or, at the very least, provide an early warning system when market feasibility is being considered. (1)
			Develop local talent and work with local businesses. This can be a key for success in some markets. It can improve competition and price. (1)
			Establish an understanding of the relationships and the ethical standards role. In large parts of Asia and the southern hemisphere, business is centered on relationships; ethical standards are very different from those in North America and other northern hemisphere regions. It is crucial to understand this to address the market and develop project execution strategies. (1)

2- Do you have an understanding of terminology, vocabulary, and colloquial differences?		Develop a system for tracking differences in terminology, vocabulary, and colloquialism, and make available to project team members. Terms such as partnerships, associates, friends, and acquaintances all carry varying connotations in different countries. One must fully understand not only vocabulary and culture, but colloquial terms and customs, before engaging in any business. (2)
3- Do you have an understanding of how networking is accomplished in the host country and the differences in these networking practices from the home country?		Host country and additional local customs with respect to networking behavior will vary. Utilize academic and on-the-ground research, or local cultural experts, to learn and use local methods. (3)

MPC-5   Differences in the required project currency

Have you considered the following items regarding your readiness?		If you have not considered the item, then the following mitigation strategies should be taken into account:
1- Are you aware of any widely differing values or potential variability between the published rate and the parallel market rate for the exchange rates of the project currency?		Develop a procedure for handling the application of multiple exchange rates. For example, some countries have a rate published by the government that differs from the rate that is actually experienced when working in the country. (1)
2- Are you aware of any trade sanctions imposed on the host country, e.g., from the U.S., the European Union, Canada, the UN, or others?		Research the relevant trade sanctions on the host country. If currency passes through another country for any reason, a currency check is required under the trade sanction laws of the U.S., the European Union, Canada, UN member countries, and other countries. Trade sanctions that need to be verified must include the following: o countries o specially designated nationals – individuals or companies who have incurred sanctions by the U.S. Treasury. Most countries have such a list, and all relevant countries' lists should be checked. o goods and services

		o currency o employees. (2)
	3- Have you investigated the possible fluctuations between the value of the estimating currency and the currently used payroll currency's exchange rate?	Currency values can change rapidly over the course of the project. Include contractual language addressing this potential issue, and institute constant monitoring to invoke required contractual clauses to allow for changes in the purchase prices that are based on the comparison of the actual currency exchange rate and the estimate exchange rate. (3)

MPC-6	**Different expectations/requirements for providing infrastructure improvements, such as housing, roads, and schools**

Have you considered the following items regarding your readiness?		If you have not considered the item, then the following mitigation strategies should be taken into account:
	1- Have you checked the governmental, regional, state, and provincial requirements, and the local and community requirements for infrastructure improvement?	Check national, state, and local requirements for infrastructure improvement. For example, major projects and developments may require some form of benefit to the community to be realized. If it is an infrastructure project, the community's opinion is key, as well as the physical benefits and scenic aspect of the completed project. If the project is an economic project for a company then the community expects both a direct payback through tax revenues such as jobs, municipal project funding, and charitable donations. (1)

			Consider the execution of a Social Impact Assessment to understand the local and community requirements. (1,3,5)
	2- Have you determined if some level of community investment is expected or required?		Depending on where you are in the country, you may end up providing anything between no community support to full accommodation. Project teams must identify and agree on a level of community involvement as early as possible to determine requirements and effect on the budget. (2)
	3- Have you considered how to manage the expectations of the local community?		In some countries, there may be additional expectations from the local community. They may expect educational improvements and an overall increase in quality of life. This will be driven by considerations of trading space, natural settings, resources, and disruption of life for acceptance of the new plant, project, or whatever is being built or developed. (3)
	4- Have you established processes for creating agreements with local stakeholders for infrastructure improvements?		Create processes to ensure infrastructure improvement agreements are negotiated up front and are well documented. These are best handled during the site purchase negotiations. (4)
	5- Have you determined whether the introduction of your project into a remote area could change the future and the expectations of the local community?		A key factor for success is to work with local communities, especially in remote areas, where the project is a main source for developing the community. (5)
			In the business feasibility plan, include consideration of the local environment from the outset; know the local environment in that market and/or region, and then execute accordingly. (5)

MPC-7	**Differing availability of local labor**

Have you considered the following items regarding your readiness?	**If you have not considered the item, then the following mitigation strategies should be taken into account:**

			To determine local availability and skills, perform the following assessments: o Investigate trades and technical labor availability. o Investigate technical trade schools. o Set up training in the local language with local trainers and educators. o Develop Human Resources locally to train and monitor progress. o Develop a construction center of learning for the future. Local labor can be scarce in some markets, both in terms of available quantity and skill. (1)
	1- Have you investigated the local labor market in order to determine availability and skills?		If there is a need for importing labor, both locally and abroad, consider the following: o Hire and develop locally as much as possible. o Verify any regulations or laws with the authorities regarding expatriate workers and labor sourcing. o Develop a program to market education and development. o Be proactive and supportive of the local labor market. o Often labor will need to be brought in from outside the local area. (1)
	2- Have you addressed potential differences in codes of conduct and ethics?		Identify differences in local codes of ethics and your company's code of ethics, and create a comprehensive policy that is not in conflict with local norms. The company has a right to enforce stricter codes above the local codes but not to diminish codes below local standards. You have a reputation to keep, and your code of ethics must apply regardless of local labor laws. (2)
	3- Have you determined whether you need to import specialists into the host country?		Investigate the local labor market and determine any gaps in needed skills. The company's initial due diligence should provide both the challenges and potential solutions in countries with an insufficient skilled labor force. In some countries, it may be necessary to import specialists, since they are not often available in local markets. This has a time and

			cost effect on your project that needs to be evaluated. (3)
	4-Have you determined whether your country is required to employ a percentage of the labor force from the local market and/or at defined wages?		Consult labor law specialists and assess the effect on cost, productivity, and other performance considerations. (4)
	5- Do you know if there is a need or legal requirement to train and develop the necessary skills within the labor force?		Establish or provide training to develop necessary skills. The need to manage multinational workforces is an important skill. Language, particularly in the safety field, can be a real issue. (5)

Geography and Logistics

GL-1	Different levels of existing physical infrastructure, such as water, power, or transportation		
Have you considered the following items regarding your readiness?		**If you have not considered the item, then the following mitigation strategies should be taken into account:**	
	1- Have you assessed the availability, quality, and quantity of water, power, and transportation?		Retain a trusted local agent during the proposal stage and/or feasibility stage, who is knowledgeable about the quality and quantity of water, power, and transportation. (1)
			Work with the local municipality, government, or tribe (through a trusted agent) to assess and subsequently address the availability, quality, and quantity of water, power, and transportation. (1)

		Baseline the status of the physical infrastructure at the kick off and/or mobilization stage, and determine any required further investment of time and effort. (1)

		Include in the risk register the investment in time and effort required for assessment; analyze the effect of quality and quantity of water, power, and transportation on cost and/or schedule uncertainty, and mitigate as required. (1)
		Track infrastructure improvements on the master schedule. (1)

GL-2 Differing logistics for access to job site

Have you considered the following items regarding your readiness?		**If you have not considered the item, then the following mitigation strategies should be taken into account:**
	1- Have you assessed the job access constraints?	Meet with site management to determine restrictions and/or access requirements. (1)
		Develop a project procedure documenting the site-specific access requirements, including access restrictions, right of search, escort requirements, badging, and security clearances. (1)
		Provide a written description and directions for all employees, detailing access requirements; train and audit as required. (1)
	2- Have you considered the level of access to transportation, technology, or security?	It is important to understand how the local workforce, supplies, and other project necessities may be transported from one location to the next. Investigate this by finding a local partner that can assist in establishing operations. (2)

GL-3 Different support services that need to be provided for expatriate workers

Have you considered the following items regarding your readiness?		If you have not considered the item, then the following mitigation strategies should be taken into account:
1- Have you identified the different support services (e.g., housing, schooling, medical, and evacuation) that need to be provided for expatriate workers in the host country?		Develop a pre-deployment, project-specific plan addressing the specific support services required for expatriate workers in the host country. (1)
		Identify visa, work permit, tax, and immunization requirements in the host country by contacting the Department of State, the Center for Disease Control, or other appropriate agencies (1)
		Prepare a country-and/or project-specific emergency and evacuation procedure for expatriate workers. Execute call-tree drills periodically. (1)
		Develop a transportation plan for expatriate workers, including an evaluation of security and vulnerability concerns, and the role of the transportation coordinator. (1)
		Engage local entities, such as real estate agencies, legal services, and others to support expatriate workers. (1)
2- Do you know if expatriate workers will travel with their families or alone?		Ensure that expatriate workers are made aware of the risks and threats. Unaccompanied by their spouses, married expatriate workers are potentially vulnerable to distractions that threaten their spousal relationship. (2)
		Develop a local support structure. (2)
		Ensure that terms of assignments for unaccompanied expatriate workers have adequate options to maintain home relationships (e.g., frequent rotations, home leave) and are agreed upon with them. (2)
		If expatriate workers are accompanied by their families, ensure that appropriate accommodations are provided. Ensure that families are aware of local customs; provide transportation and a safe living environment.

		For families with children, provide information on schools. (2)
	3- Are there resources in place to assist expatriate workers who decide to stay in the host country?	Utilize existing website resources to establish a connection with expatriate workers that have decided to stay in the host country. In some instances, the expatriate worker compensation levels will need to be adjusted to a lower level that is more aligned to local conditions. (3)

GL-4	Different level of existing information infrastructure, such as telephone, internet, etc.	
Have you considered the following items regarding your readiness?		**If you have not considered the item, then the following mitigation strategies should be taken into account:**
	1- Have you assessed, or baselined, the existing information infrastructure in the host country to determine adequacy?	Engage local IT personnel and companies to assess and set up telephone and internet capability to meet company standards and requirements. (1)

GL-5	Differing local availability of materials and equipment	
Have you considered the following items regarding your readiness?		**If you have not considered the item, then the following mitigation strategies should be taken into account:**
	1- Have you assessed the availability of materials and equipment?	Determine availability of material and equipment relevant to the project needs at the proposal stage. (1)
		Develop a comprehensive bill of materials to be shipped to the host country. Identify long-lead items and track as required. Be sure to include cost and time in the project budget and schedule for shipping to the project location. (1)
		Identify value added tax (VAT) implications, export compliance controls, and other such considerations and track as required. Consult with home country governmental agencies such as the Department of Commerce to help identify affected items. (1)

GL-6   Different climate and weather considerations

Have you considered the following items regarding your readiness?		If you have not considered the item, then the following mitigation strategies should be taken into account:	
	1- Have you assessed the effect of climate, such as extreme heat or cold, and weather conditions, such as monsoon or hurricane seasons, in the host country on your project procedures?		Include a plan in the safety procedure to address extreme weather considerations. It should detail mitigation measures applicable to humans as well as to equipment and other vital project components. (1)
	2- Are you familiar with and understand the implications of the local weather?		Understand that the local weather can have a significant effect on your projects. Contact local weather stations to determine weather patterns, or search online for historical information. (2)
	3- Have you considered the level of infrastructure or the effect of weather clean-up?		Investigate the local infrastructure by finding a local partner. The local infrastructure will play a significant role in your ability to meet project deliverables and/or deadlines. It is also important to keep in mind the capability of the local infrastructure for clean-up after a natural disaster. (3)

Safety and Security

SS-1	Differing safety culture and practices by labor force

Have you considered the following items regarding your readiness?		If you have not considered the item, then the following mitigation strategies should be taken into account:
	1- Have you discovered any information, experience, or indicators that human life appears to have less value in the host country where the project site is to be located as compared to the company's home country?	Develop a safety plan that specifically deals with how to implement additional training for such circumstances to achieve safety targets. (1)
		Plan training that will instill the company's safety principles and standards of the project. (1)
		Train site safety managers and supervisors in scenarios involving cultural issues and customs. Examples may include, but are not limited to, the following material: o Cultural training on all specific customs of local nationals, tribes, or other groups that may be working on the project. o Awareness training on specific rivalries and problems between different ethnic groups. Extra training should be implemented for workers and supervisors where such tensions may exist. o Workers' refusal to wear personal protective equipment for any reason. Reasons may be religious, cultural, or simply inexplicable to western cultures. o Specific attention to be given to workers using unsafe tools. o Workers' facial hair or extreme length of hair posing safety issues for specific jobs. o Additional attention provided for heat or cold stress in extreme weather conditions. o Additional attention needed when working from heights. o More detailed training requirements with testing and validation required to confirm that workers understand safety hazards.

		o Consideration of dealing with language challenges. o Additional management and supervisory skills training. (1)
		Utilize cultural material available from sources such as ASIS International, Globe Smart, Control Risks Group, and literature such as *Kiss, Bow or Shake Hands*. (1)
		Consult government state department agencies, foreign offices, and similar agencies for security updates. Contact your company's home country embassy, if available in the host country. Utilize available web sites. (1)
		Prepare company checklists for pre-trip site security; translators may be required. (1)

| | | | Conduct training to get the workers to understand that you care about them and their health. This may include the following:
o Holding monthly meetings with a small group of workers (without their direct supervisors) to have them describe areas of concern. Take those areas of concern to their management or address whether the solution is easy and/or inexpensive to implement.
o Give incentives to task force to help support safety goals.
o Show video clips or photos of safety incidents to get the point across to the workers about what could happen to them if they do not follow the safety rules.
o As much as possible, give the worker the authority to refuse to do the work if they feel unsafe. A good example of this would be the need to provide a clear "stop – do not enter" hand signal for the workforce that could be applied to anyone, including superiors, to stop them from crossing a safety barrier. Such hand signal training can overcome major cultural blocks regarding working with superiors.
o Ask employees to take turns discussing a safety experience with the group at a safety meeting.
o Have a family day on which families can visit the site; hold safety award sessions and family events.
o Change the safety culture to meet the project and company's goals. For example, explain that "Insha'Allah" does not mean it is Allah's will to get hurt on the project. (1) |
| | | | Conduct a behavior, attitude, and knowledge survey within the communities before the project commences onsite to identify the triggers and barriers to safe behavior. Use the results of the survey to develop the project health and safety plan. (1) |

SS-2   Differing needs for jobsite security

Have you considered the following items regarding your readiness?		If you have not considered the item, then the following mitigation strategies should be taken into account:
1- Do you know if your company's home country people or interests are considered targets in the host country?		Conduct a comprehensive country security risk review that includes the following: o an assessment of government and local law enforcement agencies o a review of political and business risk o the current level of drug trafficking o the level of corruption of the government and law enforcement agencies o an evaluation of 3 third-party security vendors to ensure that confidentiality agreements are in place (1)
		Conduct a comprehensive threat and vulnerability assessment for the project area and surrounding community to develop the security management plan. (1)
		Consider joining the ASIS International organization to obtain access to world-class security resources and practitioners worldwide. This includes access to checklists and security toolkits. Consider other key information sources such as the Central Intelligence Agency's *World Fact Book*. (1)
		Develop a site security plan that encompasses all aspects of job site security. This will likely require the expertise of external consultants and security expert groups such as the Control Risks Group. (1)
		Control security plan documents so that access is strictly controlled and limited to a need-to-know basis. Legal agreements may be required in order to securely share key elements between contractors and suppliers. (1)

			Develop specific security plans that will include the following items: o evacuation plans o key contacts o communication methods o details of site security measures o secure warehousing o site access control protocols. (1)
			Consider developing secure housing accommodations for local and expatriate workers. (1)
			Develop and issue a visitors handbook that may require input from outside security organizations. The handbook could include the following elements: o security staff mobile numbers and calling tree o foreign embassies' telephone numbers o details of potential problems o extremely detailed meet-and-greet protocols, appropriate for the level of risk involved o guidelines on behavior and dress code o specific guidelines on automobile safety o things to avoid and sensitive issues in host country o checklists covering medical requirements, passports, visas, and other considerations. (1)
			Consider implementation of an integrated travel management program that monitors and highlights employee travel to medium- and high-risk locations. (1)
			Create a plan to facilitate expatriate workers' access to worldwide mobile phones, and/or consider satellite phones. (1)
			Mandate comprehensive pre-trip briefings approved by a company security team or outside global security firm. (1)

			Consult government state department agencies, foreign offices, and similar agencies for security updates. Contact your company's home country embassy, if available in the host country. Utilize available web sites. (1)
			Conduct background checks and other pre-employment screening measures in conformance with local privacy and employment laws. (1)
			Develop clearly defined consequences for security incidents and code of conduct violations. (1)
			Complete a security vulnerability assessment that details items such as the following: Chemicals and materials on site, personnel on site, location risk, and the economic effect of loss. (1)
			Ensure that there is a local contact that meets any expatriate workers upon arrival and accompanies them throughout their trip. (1)
			Establish third-party behavior specialists that can provide guidance in de-escalating tensions between groups. (1)
			Develop security inspection procedures to include random searches of bags, vehicles, and other conveyances in accordance with local laws. (1)
	2- Is there an understanding of the potential risk to workers of violence due to local inter-ethnic group tensions?		Conduct cultural training regarding all specific customs for locals, tribes, expatriate workers and other groups that may be working on the project. (2)
			Hold awareness training on specific rivalries and problems between different ethnic groups. Have extra training for workers and supervisors where such tensions may exist. (2)
			Ensure clarity in workforce violence training and ensure that company's principles and policies are enforced. (2)

				Create high-security materials management protocols on site. (3)
	3- Has the possibility of theft risk been assessed at the project site?			Consider installing sophisticated security detection systems such as metal detectors or x-ray machines at jobsite entrances and exits . (3)
				Consider adding additional video surveillance to monitor difficult-to-secure materials. (3)
				Consider the need for increased security staff. (3)
				Consider electric wire fences to deter theft in accordance with local laws and conditions. (3)
				Install permanent fence during the construction period instead of a temporary fence. (3)
				Install access-control measures, and authorize persons of trust. (3)
	4- Have you identified whether the project site will have specific materials that could be used for, or converted into equipment for military or terrorist use? Have you identified security measure needed to mitigate?			Determine applicability and ensure full compliance with your company's home country export laws. (4)
				Ensure that strict control policies are in place and that high security materials are stored in a secure location and only accessed by authorized personnel. (4)
				Create protocol that only authorizes certified people for access. (4)
				Create a plan to ensure that inventory is strictly managed. (4)
				Install intrusion detection systems in areas containing secured materials.(4)
				Ensure that document control and data records per management procedures are in place and are relevant to controlled materials. (4)
				Create a plan to ensure full compliance with local government control measures. (4)

SS-3	Different availability and requirements for worker health and safety, such as predominant diseases, food and clean water access, and healthcare

Have you considered the following items regarding your readiness?		If you have not considered the item, then the following mitigation strategies should be taken into account:
	1- Do you have full awareness of the host country's medical resources and facilities?	Work with an international health organization such as International SOS to identify appropriate medical facilities. (1)
		Arrange visits to medical facilities in the local area with company health professionals and third-party global health professionals, to perform a capabilities assessment. A capabilities assessment would include, at a minimum, the following: o number of doctors, nurses, and beds at the facility o languages spoken o doctors' training details o medical equipment details o areas of expertise o procedures performed o ambulance details o ability to handle trauma o location o key contact. (1)
		Create an evacuation plan to nearest higher level of care. (1)
		Consider training and/or employment of medical professionals on site. (1)
		Consider providing onsite medical facilities with a doctor and/or nurse. (1)
		Determine whether there is a need to provide a company-dedicated ambulance service to transport workers to an acceptable hospital. (1)

			Work with international health organizations, such as the Center for Disease Control (CDC), Global Life, and International SOS to obtain the latest information. The CDC website is very informative and contains an abundance of resources. (1)
			Develop a health plan for employees that identifies the hospitals and doctors to be used. (1,2)
	2- Have you identified all of the host country's potential diseases?		Implement strict "fit for travel" company procedures that ensure that employees are prepared, and all vaccinations are up to date prior to travel. (2)
			Develop a plan for handling outbreaks of illnesses or diseases. Understand potential quarantine and/or isolation directives. (2)
			Develop disease control measures, such as malaria control that targets mosquito breeding areas, blood checks of workers, and other necessary actions. (2)
			Set up health response officers and train them to respond promptly and accurately in the event of illness. (2)
			Create site-specific emergency response plans to be used in the event of an outbreak of illness or disease. At the least, it should contain the following: who to contact; how to mitigate the illness; and how to execute medical evacuation plans. (2)
			Provide employees with personal protective equipment to protect themselves in the event of an illness outbreak. (2)
	3- Are you aware of information on food availability and its suitability for personnel on site?		Perform a local assessment of food availability and suitability. (3)
			Create a plan for food logistics. It may need to include importation. (3)
			Ensure that an emergency stock of food is available where required. (3)

			Perform a site assessment. Consider using expert food consultants. If the project location is remote, be prepared for surprises. (3)
			Consider providing an on-site food service. (3)
	4- Are you aware of local health hazards posed by indigenous wildlife (e.g., snakes, and poisonous insects)?		Implement a strategy to mitigate health hazards posed by indigenous wildlife. (4)
			Consider the effect of potential environmental and conservation implications to project execution. (4)
			Create a plan to address any importation quarantine requirements. (4)
			Prepare a plan for access to poison antidotes. Have a source identified for the various poison antidotes, and maintain a small stock of common poison antidotes at the project location. (4)
	5- Have you identified the water supply availability and quality; and have you identified any development work required to provide a safe water supply?		Perform an in-country assessment of the water supply. (5)
			Perform an exact-location water analysis for the water sources. Conduct biological and chemical analysis of identified water sources. (5)
			Locate acceptable water for drinking and ensure its availability. Determine whether there is a need to ship it in from the nearest city capable of obtaining the correct quantity of quality water. (5)
			Determine if there is any soil contamination. Test soil conditions prior to beginning onsite work if there is a suspicion of unsafe soil. (5)
	6- Have you considered the effect of air quality?		Perform a site assessment of air quality. (6)
			Install air quality monitors to alarm the site when levels are exceeded. (6)
			Meet with local companies or the host country's government to mitigate or reduce environmental hazards. (6)

		Provide masks and breathing apparatuses to use in the event of high pollution. (6)
		Determine whether additional air filtration is required. (6)

SS-4	**Different security procedures for travel and living**

Have you considered the following items regarding your readiness?			**If you have not considered the item, then the following mitigation strategies should be taken into account:**
	1- Have you considered any safety or security concerns about travel to and from the site location?		Consult with State Department agencies, foreign offices, and similar agencies for security updates. Contact your company's home country embassy, if available in the host country. Utilize available web sites. (1)
			Develop and issue a visitor's handbook this may require input from outside security organizations and could include the following: o security staff mobile phone numbers and call tree o foreign embassies telephone numbers o details of potential problems o extremely detailed meet-and-greet protocols appropriate for the level of risk involved. o guidelines on behavior and dress code o things to avoid and sensitive issues in host country o checklists covering medical requirements, passports, and visas, and other necessities o political, social, and economic summary information on the host country.(1)

			Create detailed travel management plans. Such plans may include the following: o key project site data o owner's and/or contractor details o key personnel photos, mobile phone numbers for project management, and other basic information o review of flight options o accommodations for helicopter travel to site o driver details o meet-and-greet protocols o "what if" scenarios and guidelines o immigration and customs forms guides o currency advice. (1)
	2- Have you considered concerns about safety and security for living in the host country?		Develop a security threat and risk assessment plan. If your company does not have this capability, use outside consultants such as the Control Risks Group. The assessment needs to be considered confidential and potentially usable beyond the purpose and scope of the report. A security threat and risk assessment will include the following: o detailed jobsite security risk and threat evaluation o intelligence overview o identification and rating of major assessed threats, e.g., kidnapping, robbery, theft, assault, and hijacking o travel recommendations o evacuation plans that will identify procedures and locations to use as safe havens, as well as alert levels and no-go areas o approved hotels and restaurants o outline of significant security challenges o evaluation of the use of global positioning satellite (GPS) systems as a monitoring tool for employee movement, as well as for high-value equipment (2)

				Dependent on the outcome of security and risk assessment, develop further plans and programs as required, including the following:
				o security team creation and ongoing training and development program
				o prevention program that plans for different risks at different project stages. Examples of this are as follows:
				  o mobilization phase: security measures are not all operational; many open areas on the site
				  o construction phase: an increase of the number of workers on site, management of turnover, arrival of critical material, heavy loads, and other risks
				  o commissioning phase: increasing sensitive areas on site
				  o demobilization phase: assurance that people leave the site voluntarily and smoothly. (2)

				Develop kidnap and ransom plans for areas where this may be relevant, including areas where piracy or drug trafficking are identified. (2)
				Create a plan for the continuous updating of security procedures, which may include the following: o risk assessments o site security plans o traffic management plans o emergency response plans o housing security plans o evacuation plans o security Information newsflashes o crisis management plans – notification protocols, mitigation plans, and other considerations. (2)

			Develop an emergency response plan covering the following elements: o a fully-equipped, 24/7 emergency response operations center for the early detection of threats and management of the information flow; also for deploying quick-reaction-and-responsive security teams, and for coordinating and communicating with other emergency operation centers o regular "dry run" exercises, training using realistic scenarios, and incorporation of lessons learned from previous scenarios. o dedicated evacuation plans that detail the following: evacuation management team, roles and responsibilities, notification and decision-making process, and evacuation routes. It is important that arrangements are planned in advance to ensure that employees are aware of what is required of them during an evacuation. (2)
			Determine the effect of possible major threats and/or emergency scenarios. Such considerations may include the following: o riots, labor unrest, and/or strikes o threats to welfare of the workforce o riot prevention concerns: salary, overtime pay, food quality, housing accommodations, recreation facilities, different cultures, and different religions o fires or explosions o gas leaks o multi-vehicle accidents involving multiple casualties o medical emergencies and evacuations o security threats o sabotage and/or terrorism o natural disasters. (2)

		Develop and issue a visitors' handbook that may need input from outside security organizations and could include the following: o security staff mobile phone numbers and call tree o foreign Embassies' telephone numbers. o details of potential problems o extremely detailed meet & greet protocols, appropriate for the level of risk involved o guidelines or rules on behavior and dress code o things to avoid and sensitive issues in the host country o checklists covering medical requirements, passports, and visas, etc. o political, social, and economic summary information on the host country o maps identifying areas of concern o time of travel or curfew requirements o evacuation protocols. (2)

SS-5   Differing procedures for reacting to an emergency

Have you considered the following items regarding your readiness?		If you have not considered the item, then the following mitigation strategies should be taken into account:
	1- Do you know if the project site possesses any unique characteristics that will require more detailed emergency response plans and procedures, e.g., the location may be considered a medium- or high-security risk or political risk?	Develop an emergency response plan covering the following elements: o fully-equipped, 24/7 emergency response operations center for the early detection of threats and management of the information flow. Such centers can deploy quick reaction and responsive security teams, and can coordinate and communicate with other emergency operation centers. o regular "dry run" exercises, training using realistic scenarios, and incorporating lessons learned from previous scenarios. o dedicated evacuation plans that detail the following: evacuation management team, roles and responsibilities, notification and decision-making process, and evacuation routes. It is important that arrangements are

			planned in advance to ensure that employees are aware of what is required of them during an evacuation.(1)
			Create a plan to monitor possible major threats and/or emergency scenarios. Such scenarios may include: o riots, labor unrest, and/or strikes o the welfare of the workforce must be monitored o the prevention of riots needs to consider: salary, overtime pay, food quality, housing accommodations, recreation facilities, different cultures, and different religions. o fires or explosions o gas leaks o multi vehicle accident involving multiple casualties o medical emergency and evacuation o security threats o sabotage and/or terrorism o natural disasters.(1)
	2- Have you identified the quality of locally available medical care at the project site's location and considered a specific medical emergency evacuation plan?		Work with international health organizations, such as International SOS, to identify local medical facilities. (2)
			Arrange visits to medical facilities in the local area with company health professionals and third-party global health professionals, to perform a capabilities assessment. A capabilities assessment would include, at a minimum, the following: o number of doctors, nurses, and beds at the facility o languages spoken o doctors' training details o medical equipment details o areas of expertise o procedures performed o ambulance details o ability to handle trauma o location o key contact. (1)

			Create an evacuation plan to the nearest higher level of care. (2)

Human Resources and Workforce

HRW-1	Differing labor laws

Have you considered the following items regarding your readiness?		If you have not considered the item, then the following mitigation strategies should be taken into account:
	1- Have you investigated the local Department of Labor or equivalent for contracting requirements?	Prepare a checklist for each jurisdiction, with details for applicable contracting rules, expatriate regulations, and hiring of local workforce, including collective bargaining groups such as unions. (1)
		Prepare templates for the following documents to ensure legal compliance and process standardization: o offer letter o employment contract - regular contracts and contingent contracts (e.g., part time or fixed term) o employee acknowledgments, consents, or waivers (e.g., non-disclosure agreements) o labor unions rights and restrictions (e.g., strikes) o payment terms (e.g., off-site, cash, etc.). (1)
	2- Have you considered working hours, overtime, holidays, and sick time and vacation accruals?	Establish an understanding of how working hours, overtime, holidays, and sick time and vacation accruals work within the host country. Countries have different minimum and maximum daily and/or weekly working hours, causing different scenarios for overtime payment. It is important to understand these regulations, since it could affect project schedules and profitability. (2)
		Examine the following: o vacation and sick time accruals o overtime considerations o comparison of the local holiday schedule to the company's home country and a published calendar (with consideration for expatriate workers and local customs). (2)

			Establish a personnel policy that will address potential gaps between the company's home country regulations and local regulations regarding holidays, overtime pay, payroll taxes, and other compensation considerations. (2)
	3- Have you reviewed your company's and the host country's polices for terminations and reductions in force?		Establish a procedure for dealing with terminations and reductions in force within the host country's legal framework. Understanding severance implications from the beginning will prevent future complications and litigation. Follow document procedures per jurisdiction for the following: o pre-termination notice or pay in lieu of notice o notifications of terminations with the local Department of Labor, government, and/or court approval o union sector agreements o severance payment calculations o due process and discrimination claims. (3)
	4- Is there an established company employee handbook that supports the host country's regulations and laws?		If one does not already exist, develop an employee handbook with a code of conduct, policies, and procedures. Review the handbook with local legal counsel to cover all regulations. Some countries require the government and/or labor organizations to approve such handbooks before presenting them to employees. It is important to include topics such as ethical behavior, corruption, bribery, among others, and how these issues should be handled. (4)
			Align headquarters' existing policies, consult with corporate legal counsel, and translate, if applicable. (4)
			Have forms such as employment applications, reference checks, employee records, and contracts reviewed and revised by local legal counsel as needed. (4)

			Establish a hiring policy that includes the following: o employment contract o confidentiality agreement o drug and alcohol policy o search and seizure o employee assistance programs and resources o absenteeism control programs o employees' privacy expectations in the work place o use of company equipment. (4)
	5- Have you considered the host country's traditional benefits?		Conduct a survey to establish local practices and define a platform for worker benefits. Benefit practices (structure and administration) may be considerably different from their home country. Consider the following: o workers compensation o unemployment insurance o union dues o medical, life, and disability insurance o maternity regulations o disability regulations o death benefits o statutory mandatory benefits o mandatory profit sharing. (5)
	6- Have you investigated potential payroll concerns within the host country?		Contract with a local payroll provider. Legal counsel can also recommend a recognized local payroll services provider to comply with payroll, governmental reporting, withholdings, and tax payments. Other items that are important to evaluate include the following: o statutory mandatory benefits deductions o mandatory profit sharing distribution o payroll compliance o deductions, withholdings, and reporting o monetary conversion o direct deposit – not legal in all countries– or other cash handling restrictions o payroll frequency o mandatory bonus payments, 13th month,

			and other considerations. (6)
	7- Have you evaluated how best to implement local human resources compliance?		Establish a human resources compliance audit to be conducted at least once a year. (7)
			Develop a checklist to document results and ensure that all critical aspects are audited. (7)
	8- Have the requirements for the record keeping of personnel information been determined for the host country?		Establish a procedure, following local regulations, regarding personnel record documentation and retention. It is also important to understand privacy regulations applicable to the jurisdiction. Develop a monitoring practice to verify that procedures are followed. (8)
	9- Have you investigated the host country's policies regarding expatriate workers and repatriation?		Develop a comprehensive international assignment policy covering the following: o pre-assignment preparation, assignment-related compensation, benefits, logistics, tax services, and other assistance o work permits and visas o local health insurance that covers incidental illnesses and accidents o medical emergency insurance coverage, including transportation back to the company's or expatriate's home country o emergency evacuation plans; registration of expatriate workers at the company's or the worker's home country's embassy website o immunization procedures o taxation policies.(9)

HRW-2	Differing pay rates for local and expatriate labor		
Have you considered the following items regarding your readiness?		**If you have not considered the item, then the following mitigation strategies should be taken into account:**	
	1- Have you investigated the labor law framework in the host country?		Understand local laws regulating wages and hours, including overtime. (1)
			Develop a compensation policy for the host country, including local and expatriate worker

		compensation. (1)
	2- Have you benchmarked market salary conditions and determined whether or not there is a workforce skill shortage?	Develop a salary structure based on labor classifications for the host country that conforms to local expectations and culture. (2)
		Survey market conditions to determine local skilled labor levels, and justify your expatriate worker deployment with documented local skilled worker shortage, (e.g., comparison to home country guidance for embassy workforce in country). (2,3)
	3- Are there standard assignments for expatriates to work in the host country?	Have expatriate workers assume highly technical and/or management positions. Expatriate compensation methodology, to be considered for long-term assignments, may include the following: o host country salary range - to maintain equity o cost-of-living allowance o hardship premium o relocation allowance o goods and services allowance. (2,3)

HRW-3	**Differing relationship required with local labor supply and labor groups**	
Have you considered the following items regarding your readiness?		**If you have not considered the item, then the following mitigation strategies should be taken into account:**
	1- Do you have a relationship with local labor organizations and/or local labor counsels?	Establish an understanding of the structure and role of labor organizations that could be a part of the labor decision tree on this project, and assess their effect on the company benefits, wage, hours, and other considerations. Consult the local labor council to assist you with local labor supply and labor groups. (1)

	2- Is there a policy and/or expectation for participation in professional associations (e.g., networking)?		Review professional associations that are active in the host country and project location, and seek participation in newsletters, activities, and seminars. (2)
	3- Have you investigated the use of employee placement companies external to your company's operations?		If needed, establish relationships with local third-party hiring agencies. They can provide valuable information about the host country's recruitment activities and trends, and market facts and trends. (3)
	4- Are all of your company's human resources staff trained on the local culture?		Provide cross-cultural training, including language learning, to human resources staff and management to ensure compatibility and understanding of the local culture. This will facilitate the development of relationships with the local workforce. (4)

HRW-4 Differing technical skills of locally available labor

Have you considered the following items regarding your readiness?		If you have not considered the item, then the following mitigation strategies should be taken into account:
	1- Has a bilateral, value-added relationship been established with local trade schools and associations?	Establish relationships with local trade schools and associations to understand the potential gap in skills and knowledge, and to engage in a knowledge-transfer program to develop future recruits. (1)
	2- Has a training program been established to ensure the transfer of knowledge?	Develop a training program to facilitate the transfer of knowledge and training of locals. Training efforts are very important. The transfer of knowledge from expatriate workers to the local workforce is highly recommended. Invest in implementing best practices, in cross-functional and cross-regional teams. Select a local leader who can learn from other operations in the company's home country. Web-meetings can be an excellent tool for this purpose. (2)

		Develop relationships with officials at the local Department of Labor for identifying available resources. They can also assist in identifying similar projects that are closing out, which may provide a source of skilled labor. (3)
	3- Do you have well-established contacts within the local Department of Labor?	
	4- Have you established an internal inventory of personnel willing to become expatriates?	Develop a recurring survey of in-house engineers to determine who is willing among them to relocate to other countries and accept short- and/or long-term assignments. (4)

HRW-5 Different technical capability of locally available engineering workforce

Have you considered the following items regarding your readiness?		If you have not considered the item, then the following mitigation strategies should be taken into account:
	1- Has a relationship been developed with local universities?	Establish relationships with local universities to understand the gap in skills and knowledge and to engage in a knowledge-transfer program to enhance future recruits. (1)
		Establish a relationship with universities to identify students from the host country where you are establishing a project or operations; this will allow you to identify students who could start working in entry-level positions. (1)
	2- Have relationships with professional associations been established?	Establish relationships with professional associations that can assist in the identification of qualified personnel. (2)
	3- Does your company have relationships with agencies responsible for the regulation of professions?	Identify local agencies that regulate the professions to understand the various specializations and licensing requirements. (3)
	4- Has your company established a relationship with a recruitment agency?	Utilize a local recruitment agency, if available, for office staff recruitment. The embassies or other companies may also offer resources. (4)

	5- Are there resources in place to assist expatriate workers who decide to stay in the host country?		Utilize existing website resources to establish a connection with expatriates that have decided to stay in the host country. In some instances, their compensation will need to be adjusted to a lower level, one that is more aligned to local conditions. (5)
	6- Has a training program been developed to ensure the transfer of knowledge?		Develop a training program to facilitate the transfer of knowledge and training of locals. Training efforts are very important. The transfer of knowledge transfer from expatriate workers to the local workforce is highly recommended. Invest in implementing best practices in cross-functional and cross-regional teams. Select a local leader who can learn from other operations in the company's home country. Web-meetings can be an excellent tool for this purpose. (6)
	7- Has a rewards and recognitions program been established for use in the host country?		Develop a rewards and recognitions program aligned with local norms to recognize the performance of local workers. (7)

Legal and Contracts

LC-1	Differing contractual terms and conditions in local market

Have you considered the following items regarding your readiness?		If you have not considered the item, then the following mitigation strategies should be taken into account:
	1- Have you compared a complete standard *pro forma* contract (company preferred template) against the local market? This review may include, but is not limited to, the following items: o labor laws o regulatory o financial o taxation o insurance norms o performance security norms, lines of credit versus bank guarantees, and what is practical and achievable o lien laws o indemnity o dispute resolution practices o applicable law i.e., do local laws and jurisdiction have to be the basis, or can you dictate a preferable law and jurisdiction? o arbitration o contract language - does it have to be in the local language to be considered legal, or can it be in English? o payment terms and laws regarding retention o local content requirements o permit and licensing requirements for contractors o health, safety, and	Identify a local attorney to advise on the *pro forma* contracting document terms and conditions. Obtain specific recommendations and revisions (or an alternate form of the contract) to provide the best, most enforceable contract for the local application. This could require more than one attorney, and may require more than one specific area of expertise, e.g., labor law. (1)
		Utilize a local tax consultant with experience in international commerce regulations that may affect foreign companies doing business in the local market. To comply with local laws, obtain specific recommendations for contract revisions (or an alternate form of the contract) that provide information on local taxes and specific requirements. (1)
		Utilize a local insurance consultant to advise on *pro forma* sections. (1)
		Meet with another company doing similar business in the host country or one with extensive time in country, to get some advice on the issues and lessons learned. (1)
		Meet with local contractors and/or local trade associations, and double check the revised *pro forma* contracts to get their feedback. This practicality check is essential. Consultants may give you "pure legal advice," that may not be suitable for real application. For example, there are many instances where some laws and/or regulations are just not enforced or applied. This helps in your understanding of the "risks." (1)

	environmental requirements, including certifications, reporting, and other unique regulations o contracting party liabilities and regulations requiring enforcement of subcontractor compliance issues, e.g., payments, taxes, labor laws, among others.		Compile lessons learned from all consultants. (1)
			Understand differences in commercial contracting approaches. The terms and conditions can be substantially affected by your intended commercial structure, e.g., cost reimbursable contracting versus lump sum. Understand the local contractors' capability to accept and work with various commercial structures. (1)
			Ensure that your company's terms and conditions are legal and acceptable in the host country. (1)
	2- Have you determined whether value added taxes (VAT) are applicable?		Qualify the proposal so that the commercial price does not include VAT unless applicable. (2)
	3- Have you determined whether local municipal taxes are applicable?		Research the local market to determine the tax percentage to include in pricing. (3)
	4- Do you know if the local currency is traded on an open free currency market?		Research restrictions for converting the company's home country currency to local currency and the converse, and understand risk exposure for any currency exchange rate fluctuations. (4)
	5- Do you know if a local partner is required for a foreign corporation to execute work in the local market? If so, at what percentage?		Consult the Department of Commerce, local business organizations, or appropriate governmental agencies to determine foreign partnership requirements. (5)
	6- Are you aware of import restrictions for equipment and materials and/or applicable import duties and taxes to be considered during pricing?		Perform an investigation of import restrictions utilizing a shipping agent with experience in the local market. (6)
	7- Are tax exemptions or discounts available on the project?		Consult a local tax consultant to determine applicable tax exemptions or discounts. (7)
	8- Are there restrictions to the repatriation of profits?		Research the restrictions on the repatriation of profits.(8)

LC-2	**Differing local laws and legal practices that can affect the project (for example, lack of awareness of local laws)**

Have you considered the following items regarding your readiness?		If you have not considered the item, then the following mitigation strategies should be taken into account:
	1- Are you aware of any import duties or restrictions, customs clearance issues and norms, and requirements?	Gain an understanding of the lead times and import requirements that affect the ability to get materials and equipment imported. (1)
	2-Are you aware of any requirements to use locally produced materials or equipment?	Assess required materials and equipment sources from the standpoints of both availability and quality. Determine whether requirements can be met locally, or if the availability and quality can only be supplied by international suppliers. (2)
	3-Are you aware of any foreign labor restrictions and/or work visa requirements for expatriate workers?	Consult local governmental agencies to determine foreign labor restrictions and visa requirements for expatriate workers. (3)
	4- Have you determined whether expatriate personnel are subject to local employee payroll taxes?	Consult a local tax consultant and/or local government agency to determine applicable local payroll taxes for expatriates. (4)
		Consider whether per diems, lodging, and transportation provided by the employer are subject to payroll taxes. (4)
	5- Have you determined whether local skilled craft and training programs are available?	Determine the source of the local labor supply by contacting local contractors and your host country's Chamber of Commerce. (5)
	6- Have you determined whether local labor is covered under collective bargaining agreements?	Determine the duration of existing contacts and the probable effects of negotiations during the term of the project. (6)

	7-Have you identified the possibility of in-country transportation issues that may affect the movement of materials and equipment to the project location, i.e., load weight and dimension limits on roads and bridges? Have you researched the regulatory requirements affecting these issues?		Consult with local governmental agencies and/or experienced freight forwarding companies to determine potential transport issues. (7)
	8- Are there regulatory requirements affecting the provision of housing (i.e., camps) and the catering of craft and supervisory personnel?		Consult with local governmental agencies, the Department of Commerce, and the local Chamber of Commerce organizations. (8)
	9- Have you determined whether your employer's workman's compensation coverage covers local labor?		Investigate and, if necessary, acquire local coverage on local labor to insure proper coverage under laws of the host country and local market. (9)
	10- Do you know the local labor laws regarding work hours and statutory overtime rates?		Consult the appropriate local governmental agencies or consultants to determine work hour requirements. (10)
	11- Do you know the requirements for expatriate personnel regarding the host country's drivers, or motor vehicle licenses?		Consult the appropriate local governmental agencies or consultants to determine licensing requirements. (11)

LC-3	**Different property management laws, such as zoning, ownership regulation, property rights, eminent domain, squatter's rights, etc.**

Have you considered the following items regarding your readiness?		If you have not considered the item, then the following mitigation strategies should be taken into account:
	1- Do you know if laws and/or regulations change between jurisdictions within the host country?	Investigate by using consultants, governmental agencies, and/or other companies with experience in the host country. One state or municipality may have a completely different set of requirements from another. (1)

2- Have you addressed unwritten local rules or norms of which you should be aware?	Seek out locals and/or other companies with experience in the host country who can assist with this issue. Study and understand the reality in this area. What the law may say can be quite different from what you really find happening on the ground. (2)
3- Are you aware of any property ownership concerns in the host country?	Determine the rights of protestors and/or squatters on the project location in the host country. (3)
	Determine the potential extent of the eminent domain powers of the government of the host country. (3)
	Determine if foreign entities have the right to own property in the host country. (3)

LC-4 Visa requirements for expatriate workers

Have you considered the following items regarding your readiness?	If you have not considered the item, then the following mitigation strategies should be taken into account:
1- Have you determined whether there are visa requirements to enter the host country?	Contact the expatriate's State Department or home country embassy and/or consulate to determine entry visa requirements. (1,2)
	Contract with a third-party international travel firm to determine entry requirements and obtain visa expediting. (1,2)
	Determine the fees to be paid and the requirements for the visas. (1,2)
	Follow or create company policy for paying the visa's entry requirements. (1,2)
2- Have you determined the visa limits for expatriates to stay in the host country?	Create policy and/or strategy to meet local labor requirements, including the training of local workers, to take over from expatriate labor. (2)

LC-5 Differing understanding of what constitutes a contract, such as scope definition and terms and conditions

Have you considered the following items regarding your readiness?		If you have not considered the item, then the following mitigation strategies should be taken into account:
	1-Have you identified the contractual laws in the host country?	Hire local legal representation that is knowledgeable about local contract law. (1)
		Determine the process for contract resolution and know its history in the host country in which you are working. (1)
		Identify the local contractual laws and develop the appropriate strategies to work within the law. For example, in some countries a contract must be between two local companies. An example strategy may be to create a joint venture with a Saudi company. (1)
		Determine whether there are situations in which relationships and/or culture are more important than contracts in the host country, and determine the effect on the project. (1)
	2- Do you know if your scope is defined to an adequate level to enter into a contract?	Review scope with local legal counsel. (2)
		Peer review your project with project professionals who have worked in the host country. (2)
	3- Have you identified if your company's values and standards meet the host country's legal and cultural issues?	Ensure that you have added the appropriate money and schedule risk into your planning to address. (3)
		Review and align with your company's hierarchy the risks involved with the project and the potential risk they pose to the company's reputation. (3)

LC-6	**Differing insurance and bonding requirements**

Have you considered the following items regarding your readiness?		If you have not considered the item, then the following mitigation strategies should be taken into account:
	1- Are you aware of the insurance and bonding practices in the host country?	Hire local insurance representation that is knowledgeable about local contract law. (1)
		Ensure that appropriate funds are included in project funding to meet insurance and bonding requirements. (1)

Communications

C-1	Dealing with different, possibly multiple, locally spoken languages

Have you considered the following items regarding your readiness?		If you have not considered the item, then the following mitigation strategies should be taken into account:
	1- Have you determined the official local language and checked for secondary language and/or regional dialects in the project's location?	Contact local governmental entities, (e.g., State Department or Chamber of Commerce) or locally based team members, if available, in order to determine the languages used in the project location or within the host country. (1, 2, 3)
	2- Have you determined whether English is an acceptable language for doing business in the host country?	Consult with local entities about the possibility of using English in the host country (2,3)
	3- Has it been verified that English is acceptable for written documents, contracts, drawings, and other documentation?	Consult with local entities about language standards and requirements for project documentation. (3)
	4- Does in-house competency of local languages relevant to the project already exist?	Conduct an employee survey, and utilize Human Resources to develop a project team profile of spoken and written languages. Identify gaps and needs for additional support. (4)
	5- Has the potential need for additional internal and external resources for communicating in the acceptable local language been determined?	Identify additional resources needed for communication. This could include, but is not limited to Rosetta Stone or equivalent tools, external communication specialists, and local translators/interpreters. Create allowances in the projects costs to cover these resources. (5)
	6- Will your company's language requirements limit available resources?	Conduct employee surveys, and utilize Human Resources and local labor entities to develop a local and expatriate labor force profile of spoken and written languages. (6)
	7- Is there a plan in place to ensure that safety warnings are posted in a way that is	Create a company process to facilitate the communication of safety information in multiple languages and formats. (7)

	understandable to all employees?	

C-2	**Different methods for communication, such as verbal, written, or body language**

Have you considered the following items regarding your readiness?		If you have not considered the item, then the following mitigation strategies should be taken into account:
	1- Has an understanding of the differences in communication styles been established?	Create a company process to instruct employees on the differences in communication styles. (1)
		Provide employees with access to resources to help teach them about differences in communication, e.g., (*Kiss, Bow, Shake Hands at* http://www.getcustoms.com), database websites (Globe Smart at www.globesmart.com), and contact information for persons who have worked previously in the host country. If possible, develop a project-specific employee handbook. (1,2)
	2- Have the expatriate employees been prepared for different communication styles before they go abroad? For example, employees' cultural awareness such as body language, clothing, and/or gestures.	Provide a training session on the host country's dos and do nots, such as appropriate clothing, hand gestures, overall body language, dealing with unusual meals, and other basic social norms. (2)
	3- Have possible language differences on equipment to be handled or operated (e.g., computer keyboards or cranes) been determined?	Provide training for expatriate workers on differences in language set-ups on equipment. Have one person from the local team who speaks both English and the local language to act as a facilitator. (3)
	4- Is there a plan to ensure that both internal and external company communication polices (dos and do nots) are understood by employees and conveyed to local companies providing services?	Educate employees on company communication policies to ensure adherence to communication procedures. Items covered may include the following: local media and press release requests, handling of third-party requests, social media use, photograph, secrecy agreements, confidential information. (4)

C-3	**Different levels of clarification needed to meet expectations and achieve desired outcomes**

Have you considered the following items regarding your readiness?		**If you have not considered the item, then the following mitigation strategies should be taken into account:**
	1- Is there an understanding that, when talking to someone in your home country, you have expectations for what their response means, while in the host country the same response might lead to a different outcome than expected?	Establish training for expatriate and local employees. Allow for additional time in the schedule to cover extra efforts to emphasize and clearly confirm that important messages and the expected outcomes are being conveyed. One method is by continuing to ask probing questions; another is to capture expectations and agreements in writing. (1,2)
	2- Is there a system in place to ensure that locals will understand your company's terminology, clichés, industry jargon and colloquialisms? Commonly understood terminology in the home country is often not understood or not clearly conveyed in the host country.	Instruct the team to use simple and direct communications. When talking to someone with a different primary language, you cannot take it for granted that the message was properly conveyed. Additional confirmation is needed to make sure you get what you expect. (1,2)
	3- Is there a potential need for additional time in the schedule for meetings and conference-calls due to communications barriers?	Allow for additional contingencies in the budget and schedule for additional time to cover costs for communication. (3)
	4- Have you checked the technical standards being used in the host country and discovered which differences require clarification?	Communicate all standards that are part of drawings and specifications and get confirmation that the host country can meet those standards. If not, allow for additional time in the schedule and budget to meet the project standards. (4)
	5- Is there an escalation hierarchy to achieve agreement between two parties? The locals and the expatriates possibly have different positions and different limits of authority.	Create a policy to check the organizational/hierarchical structure of the other party to ensure that you are working with the appropriate people. (5)

	6- Is there an understanding of the communications, cultural, educational, and technical differences between generations? Have generational considerations been taken into account, such as up-generation and down-generation differences in opinion of what is good, right, and acceptable?	Train the project team to understand the communications, cultural, educational, and technical values of the host country when interacting with locals of different seniority or generations. (6)

Appendix G: Research Schedule as Conducted

Timeline columns: 2011 (S O N D J F M A), 2012 (M J J A S O N D), 2013 (J F M A M J J A). "xx" = As Completed, "▦" = As Planned.

Research Tasks	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A
RT 294 Charter Creation & Submittal	xx	xx	▦																					
1. Lit. Review	xx	xx	xx																					
2. Definition of Key Terms	xx	▦	▦																					
3. Delphi Approach to Develop Systematic Deployment Process			xx	xx	xx	xx	xx	xx	xx															
1st Interim Report						xx																		
4. Analytic Hierarchy Process to Prioritize Best Deployment Procedures									xx	xx	xx													
5. Metric Framework Development											xx	xx	xx	▦	▦									
2nd Interim Report & RC Meeting													xx	xx										
6. Tool Development														xx	xx	xx	xx	xx	xx					
PRB 1st Submission RS/Tool																		xx						
7. Validation									xx		xx						xx	xx	xx	xx				
PRB 2nd Submission RS/Tool																					xx			
PRB Final Submission RS/Tool																				xx				
8. Prepare RR, RS and IR																xx	xx	xx	xx	xx	xx	xx	xx	xx
9a. Prepare CII Final Presentation																xx	xx	xx	xx	xx	xx	xx	xx	
9b. Attend CII Annual Conf.											xx												xx	

Legend

▦	As Planned
xx	As Completed

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Appendix H: Delphi Study Survey Printouts

Appendix H-1 Round 1 Delphi Survey

CII

A Note from the CII

The purpose of centralizing data collection through use of CII server-based software is to establish a centralized database to support CII research, benchmarking, and other CII committees working to support CII's mission. The centralized database should provide for more secure data collection and storage, and facilitates the sharing of data among authorized teams and committees while reducing the data collection burden on CII member companies.

All data provided for any CII survey in support of benchmarking and research activities by participating organizations are considered "company confidential." The data have been provided by participating companies with the assurance that individual company data will not be communicated in any form to any party other than CII authorized academic researchers and designated CII staff members. Any data or analyses based on these data that are shared with others or published will represent summaries of data from multiple organizations participating in the survey which have been aggregated in a way that will preclude identification of proprietary data and the specific performance of individual organizations.

CII

Instructions:

The following 57 ISSUES have been identified from interviews, published documents and focus group discussions as having been encountered when companies deployed best practices in unfamiliar countries.

In this Round 1 of the Delphi study, we are seeking to assess:

(1) The extent to which each issue is IMPORTANT when attempting to deploy a best practice in an unfamiliar country.

(2) The extent to which each issue is UNIQUE to international best practice deployment (as opposed to deploying in the United States).

In the blank space below each issue, please feel free to add additional comments if you strongly agree or strongly disagree that the issue is important or unique. At the very end, you will have the option to write in additional issues that in your opinion were not covered but are IMPORTANT and/or UNIQUE to deploying best practices in unfamiliar countries.

Please consider the following statements in regard to the following issues and select the option that best represents your opinion;

1-According to your experience, this can be an IMPORTANT issue to be addressed when attempting to deploy a best practice in an unfamiliar country.

2-This issue is UNIQUE to deploying best practices in unfamiliar countries (i.e., it is not a common deployment issue in the United States).

1. Differing personal values, ethics, and lifestyle.

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	◎	◎	◎	◎	◎	◎
2- UNIQUE	◎	◎	◎	◎	◎	◎

2. If you chose strongly agree or strongly disagree as a response to either of the statements in question 1 please comment on why. Also, feel free to add any additional comments that you may have about this issue.

3. Different methods for communication (for example, verbal, written, body language).

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	◎	◎	◎	◎	◎	◎
2- UNIQUE	◎	◎	◎	◎	◎	◎

4. If you chose strongly agree or strongly disagree as a response to either of the statements in question 3 please comment on why. Also, feel free to add any additional comments that you may have about this issue.

5. Different accommodations due to religious practices of labor force (for example, unable to wear hard hats).

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	◎	◎	◎	◎	◎	◎
2- UNIQUE	◎	◎	◎	◎	◎	◎

6. If you chose strongly agree or strongly disagree as a response to either of the statements in question 5 please comment on why. Also, feel free to add any additional comments that you may have about this issue.

7. Differing contractual terms and conditions in local market. ·

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	○	○	○	○	○	○
2- UNIQUE	○	○	○	○	○	○

8. If you chose strongly agree or strongly disagree as a response to either of the statements in question 7 please comment on why. Also, feel free to add any additional comments that you may have about this issue.

9. Differences in the local building code from the U.S. code or International Building Code. ·

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	○	○	○	○	○	○
2- UNIQUE	○	○	○	○	○	○

10. If you chose strongly agree or strongly disagree as a response to either of the statements in question 9 please comment on why. Also, feel free to add any additional comments that you may have about this issue.

11. Differing perceptions of your company reputation by locals. ·

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	○	○	○	○	○	○
2- UNIQUE	○	○	○	○	○	○

12. If you chose strongly agree or strongly disagree as a response to either of the statements in question 11 please comment on why. Also, feel free to add any additional comments that you may have about this issue.

13. Differing level of familiarity with best practices and/or their implementation by the local entities (for example, by labor force, subcontractors). •

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	○	○	○	○	○	○
2- UNIQUE	○	○	○	○	○	○

14. If you chose strongly agree or strongly disagree as a response to either of the statements in question 13 please comment on why. Also, feel free to add any additional comments that you may have about this issue.

15. Differing local laws and legal practices external to the project (for example, lack of awareness of local laws). •

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	○	○	○	○	○	○
2- UNIQUE	○	○	○	○	○	○

16. If you chose strongly agree or strongly disagree as a response to either of the statements in question 15 please comment on why. Also, feel free to add any additional comments that you may have about this issue.

17. Differing relationship required with local labor supply and labor groups. •

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	○	○	○	○	○	○
2- UNIQUE	○	○	○	○	○	○

18. If you chose strongly agree or strongly disagree as a response to either of the statements in question 17 please comment on why. Also, feel free to add any additional comments that you may have about this issue.

19. Different regulations specific to foreign businesses (for example, sponsorship, registration, licensing, etc.). ·

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	○	○	○	○	○	○
2- UNIQUE	○	○	○	○	○	○

20. If you chose strongly agree or strongly disagree as a response to either of the statements in question 19 please comment on why. Also, feel free to add any additional comments that you may have about this issue.

Please consider the following statements in regard to the following issues and select the option that best represents your opinion;

1-According to your experience, this can be an IMPORTANT issue to be addressed when attempting to deploy a best practice in an unfamiliar country.

2-This issue is UNIQUE to deploying best practices in unfamiliar countries (i.e., it is not a common deployment issue in the United States).

21. Different understanding of how to treat intellectual property. *

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	○	○	○	○	○	○
2- UNIQUE	○	○	○	○	○	○

22. If you chose strongly agree or strongly disagree as a response to either of the statements in question 21 please comment on why. Also, feel free to add any additional comments that you may have about this issue.

23. Different level of local business competition. *

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	○	○	○	○	○	○
2- UNIQUE	○	○	○	○	○	○

24. If you chose strongly agree or strongly disagree as a response to either of the statements in question 23 please comment on why. Also, feel free to add any additional comments that you may have about this issue.

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25. Differing understanding of what constitutes a contract (for example, scope definition, terms and conditions).*

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	○	○	○	○	○	○
2- UNIQUE	○	○	○	○	○	○

26. If you chose strongly agree or strongly disagree as a response to either of the statements in question 25 please comment on why. Also, feel free to add any additional comments that you may have about this issue.

27. Differing regulations on the importation and exportation of materials and equipment.*

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	○	○	○	○	○	○
2- UNIQUE	○	○	○	○	○	○

28. If you chose strongly agree or strongly disagree as a response to either of the statements in question 27 please comment on why. Also, feel free to add any additional comments that you may have about this issue.

29. Different local building and construction permit requirements and process for acquisition of permits.*

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	○	○	○	○	○	○
2- UNIQUE	○	○	○	○	○	○

30. If you chose strongly agree or strongly disagree as a response to either of the statements in question 29 please comment on why. Also, feel free to add any additional comments that you may have about this issue.

31. Differing local availability of materials and equipment.*

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	○	○	○	○	○	○
2- UNIQUE	○	○	○	○	○	○

32. If you chose strongly agree or strongly disagree as a response to either of the statements in question 31 please comment on why. Also, feel free to add any additional comments that you may have about this issue.

33. Differences in currency required to be used on a project.*

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	○	○	○	○	○	○
2- UNIQUE	○	○	○	○	○	○

34. If you chose strongly agree or strongly disagree as a response to either of the statements in question 33 please comment on why. Also, feel free to add any additional comments that you may have about this issue.

35. Differing geological and geographic considerations.*

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	○	○	○	○	○	○
2- UNIQUE	○	○	○	○	○	○

36. If you chose strongly agree or strongly disagree as a response to either of the statements in question 35 please comment on why. Also, feel free to add any additional comments that you may have about this issue.

37. Different level of existing physical infrastructure (for example, water, power, transportation).

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	○	○	○	○	○	○
2- UNIQUE	○	○	○	○	○	○

38. If you chose strongly agree or strongly disagree as a response to either of the statements in question 37 please comment on why. Also, feel free to add any additional comments that you may have about this issue.

39. Differing labor laws.

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	○	○	○	○	○	○
2- UNIQUE	○	○	○	○	○	○

40. If you chose strongly agree or strongly disagree as a response to either of the statements in question 39 please comment on why. Also, feel free to add any additional comments that you may have about this issue.

CII

Please consider the following statements in regard to the following issues and select the option that best represents your opinion;

1-According to your experience, this can be an IMPORTANT issue to be addressed when attempting to deploy a best practice in an unfamiliar country.

2-This issue is UNIQUE to deploying best practices in unfamiliar countries (i.e., it is not a common deployment issue in the United States).

41. Differing levels of concern for environmental issues. •

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	○	○	○	○	○	○
2- UNIQUE	○	○	○	○	○	○

42. If you chose strongly agree or strongly disagree as a response to either of the statements in question 41 please comment on why. Also, feel free to add any additional comments that you may have about this issue.

43. Differing restrictions on construction activity at jobsites (for example, limitations on hours when construction activities can proceed).•

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	○	○	○	○	○	○
2- UNIQUE	○	○	○	○	○	○

44. If you chose strongly agree or strongly disagree as a response to either of the statements in question 43 please comment on why. Also, feel free to add any

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additional comments that you may have about this issue

45. Differing insurance and bonding requirements.

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	○	○	○	○	○	○
2- UNIQUE	○	○	○	○	○	○

46. If you chose strongly agree or strongly disagree as a response to either of the statements in question 45 please comment on why. Also, feel free to add any additional comments that you may have about this issue.

47. Differing local sentiments toward project.

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	○	○	○	○	○	○
2- UNIQUE	○	○	○	○	○	○

48. If you chose strongly agree or strongly disagree as a response to either of the statements in question 47 please comment on why. Also, feel free to add any additional comments that you may have about this issue.

49. Different expectations/requirements for providing infrastructure improvements (for example, housing, roads, schools).

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	○	○	○	○	○	○
2- UNIQUE	○	○	○	○	○	○

50. If you chose strongly agree or strongly disagree as a response to either of the statements in question 49 please comment on why. Also, feel free to add any additional comments that you may have about this issue.

51. Differing regulations on materials procurement (for example, specific vendors that must be used, 'buy local' regulations).*

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	◎	◎	◎	◎	◎	◎
2- UNIQUE	◎	◎	◎	◎	◎	◎

52. If you chose strongly agree or strongly disagree as a response to either of the statements in question 51 please comment on why. Also, feel free to add any additional comments that you may have about this issue.

53. Differing relationships and interactions with local government and regulators.*

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	◎	◎	◎	◎	◎	◎
2- UNIQUE	◎	◎	◎	◎	◎	◎

54. If you chose strongly agree or strongly disagree as a response to either of the statements in question 53 please comment on why. Also, feel free to add any additional comments that you may have about this issue.

55. Differing availability of local labor. *

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	○	○	○	○	○	○
2- UNIQUE	○	○	○	○	○	○

56. If you chose strongly agree or strongly disagree as a response to either of the statements in question 55 please comment on why. Also, feel free to add any additional comments that you may have about this issue.

57. Differing technical skills of locally available labor. *

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	○	○	○	○	○	○
2- UNIQUE	○	○	○	○	○	○

58. If you chose strongly agree or strongly disagree as a response to either of the statements in question 57 please comment on why. Also, feel free to add any additional comments that you may have about this issue.

59. Different property management laws (for example, zoning, ownership regulation, property rights, eminent domain, squatter's rights, etc.). *

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	○	○	○	○	○	○
2- UNIQUE	○	○	○	○	○	○

60. If you chose strongly agree or strongly disagree as a response to either of the statements in question 59 please comment on why. Also, feel free to add any additional comments that you may have about this issue.

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CII

Please consider the following statements in regard to the following issues and select the option that best represents your opinion;

1-According to your experience, this can be an IMPORTANT issue to be addressed when attempting to deploy a best practice in an unfamiliar country.

2-This issue is UNIQUE to deploying best practices in unfamiliar countries (i.e., it is not a common deployment issue in the United States).

61. Differing safety culture and practices by labor force.*

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	○	○	○	○	○	○
2- UNIQUE	○	○	○	○	○	○

62. If you chose strongly agree or strongly disagree as a response to either of the statements in question 61 please comment on why. Also, feel free to add any additional comments that you may have about this issue.

63. Differing logistics for access to job site.*

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	○	○	○	○	○	○
2- UNIQUE	○	○	○	○	○	○

64. If you chose strongly agree or strongly disagree as a response to either of the statements in question 63 please comment on why. Also, feel free to add any additional comments that you may have about this issue.

65. Differing political climate and level of political stability. *

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	○	○	○	○	○	○
2- UNIQUE	○	○	○	○	○	○

66. If you chose strongly agree or strongly disagree as a response to either of the statements in question 65 please comment on why. Also, feel free to add any additional comments that you may have about this issue.

67. Differing needs for jobsite security. *

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	○	○	○	○	○	○
2- UNIQUE	○	○	○	○	○	○

68. If you chose strongly agree or strongly disagree as a response to either of the statements in question 67 please comment on why. Also, feel free to add any additional comments that you may have about this issue.

69. Differing management styles. *

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	○	○	○	○	○	○
2- UNIQUE	○	○	○	○	○	○

70. If you chose strongly agree or strongly disagree as a response to either of the statements in question 69 please comment on why. Also, feel free to add any

additional comments that you may have about this issue.

71. Different availability and requirements for worker health and safety (for example, predominant diseases, food and clean water access, healthcare).•

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	○	○	○	○	○	○
2- UNIQUE	○	○	○	○	○	○

72. If you chose strongly agree or strongly disagree as a response to either of the statements in question 71 please comment on why. Also, feel free to add any additional comments that you may have about this issue.

73. Differing regulations relating to the handling of hazardous materials.•

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	○	○	○	○	○	○
2- UNIQUE	○	○	○	○	○	○

74. If you chose strongly agree or strongly disagree as a response to either of the statements in question 73 please comment on why. Also, feel free to add any additional comments that you may have about this issue.

75. Different ethical standards in conducting business.•

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	○	○	○	○	○	○
2- UNIQUE	○	○	○	○	○	○

76. If you chose strongly agree or strongly disagree as a response to either of the statements in question 75 please comment on why. Also, feel free to add any additional comments that you may have about this issue.

77. Different security procedures for travel and living.

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	○	○	○	○	○	○
2- UNIQUE	○	○	○	○	○	○

78. If you chose strongly agree or strongly disagree as a response to either of the statements in question 77 please comment on why. Also, feel free to add any additional comments that you may have about this issue.

79. Visa requirements for expatriate workers.

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	○	○	○	○	○	○
2- UNIQUE	○	○	○	○	○	○

80. If you chose strongly agree or strongly disagree as a response to either of the statements in question 79 please comment on why. Also, feel free to add any additional comments that you may have about this issue.

CII

Please consider the following statements in regard to the following issues and select the option that best represents your opinion;

1-According to your experience, this can be an IMPORTANT issue to be addressed when attempting to deploy a best practice in an unfamiliar country.

2-This issue is UNIQUE to deploying best practices in unfamiliar countries (i.e., it is not a common deployment issue in the United States).

81. Differing scheduling considerations based on the workforce (for example, prayer times, local holidays). *

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	○	○	○	○	○	○
2- UNIQUE	○	○				

CII

Delphi Round 2

Page 1

The purpose of centralizing data collection through use of CII server-based software is to establish a centralized database to support CII research, benchmarking, and other CII committees working to support CII's mission. The centralized database should provide for more secure data collection and storage, and facilitates the sharing of data among authorized teams and committees while reducing the data collection burden on CII member companies.

All data provided for any CII survey in support of benchmarking and research activities by participating organizations are considered "company confidential." The data have been provided by participating companies with the assurance that individual company data will not be communicated in any form to any party other than CII authorized academic researchers and designated CII staff members. Any data or analyses based on these data that are shared with others or published will represent summaries of data from multiple organizations participating in the survey which have been aggregated in a way that will preclude identification of proprietary data and the specific performance of individual organizations.

Additional Issues

This ROUND 2 Delphi Survey is comprised of 2 parts; Part I contains 6 new issues that were identified by respondents during Round 1, Part II contains 18 issues for which we did not reach consensus in Round 1.

Part I Instructions:

The following 6 ISSUES have been identified from your peers' comments during Round 1 of the survey as having been encountered when companies deployed best practices in unfamiliar countries.

After clicking save please do not close your browser until you have completed the survey, or you may lose your entered data.

Please consider the following statements in regard to the following issues and select the option that best represents your opinion;

1-According to your experience, this can be an IMPORTANT issue to be addressed when attempting to deploy a best practice in an unfamiliar country.

2-This issue is UNIQUE to deploying best practices in unfamiliar countries (i.e., it is not a common deployment issue in the United States).

1. Reluctance to consider adopting local practices.*

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	○	○	○	○	○	○
2- UNIQUE	○	○	○	○	○	○

2. If you chose strongly agree or strongly disagree as a response to either of the statements in question 1 please comment on why. Also, feel free to add any additional comments that you may have about this issue.

3. Different technical capability of locally available engineering workforce. *

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	○	○	○	○	○	○
2- UNIQUE	○	○	○	○	○	○

4. If you chose strongly agree or strongly disagree as a response to either of the statements in question 3 please comment on why. Also, feel free to add any additional comments that you may have about this issue.

5. Different engineering expectations/requirements. *

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	○	○	○	○	○	○
2- UNIQUE	○	○	○	○	○	○

6. If you chose strongly agree or strongly disagree as a response to either of the statements in question 5 please comment on why. Also, feel free to add any additional comments that you may have about this issue.

7. Different levels of clarification needed to meet expectations and achieve outcomes. *

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	○	○	○	○	○	○
2- UNIQUE	○	○	○	○	○	○

8. If you chose strongly agree or strongly disagree as a response to either of the statements in question 7 please comment on why. Also, feel free to add any additional comments that you may have about this issue.

9. Different levels of discipline in adhering to project schedules. *

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	◯	◯	◯	◯	◯	◯
2- UNIQUE	◯	◯	◯	◯	◯	◯

10. If you chose strongly agree or strongly disagree as a response to either of the statements in question 9 please comment on why. Also, feel free to add any additional comments that you may have about this issue.

11. Different levels of surveillance required for activities of the work force. *

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	◯	◯	◯	◯	◯	◯
2- UNIQUE	◯	◯	◯	◯	◯	◯

12. If you chose strongly agree or strongly disagree as a response to either of the statements in question 11 please comment on why. Also, feel free to add any additional comments that you may have about this issue.

Unsettled Issues From Round 1

Part II Instructions:

The following 18 ISSUES from Round 1 of the Delphi study did not reach consensus, hence their inclusion in Round 2. We are asking you to select again, but this time we are providing you the feedback provided by the respondents in Round 1. We ask that you consider this feedback in determining your choice in this second round Delphi survey.

After clicking save please do not close your browser until you have completed the survey, or you may lose your entered data.

After reviewing the comments preceding each issue, please consider the following statements in regard to the following issues and select the option that best represents your opinion;

1-According to your experience, this can be an IMPORTANT issue to be addressed when attempting to deploy a best practice in an unfamiliar country.

2-This issue is UNIQUE to deploying best practices in unfamiliar countries (i.e., it is not a common deployment issue in the United States).

Please consider the following comments in regard to: Different climate and weather considerations.

-Climate and long working hours can deteriorate basic productivity and performance rates.

-Add altitude as an issue. Many mining projects are at high altitude.

In the previous round of the survey, the following percentages of participants chose agree or strongly agree:

Importance: 45%

Uniqueness: 29%

13. Different climate and weather considerations.*

| Strongly | Disagree | Somewhat | Somewhat | Agree | Strongly |

		Disagree		Disagree	Agree		Agree
1- IMPORTANT		○	○		○	○	○
2- UNIQUE		○	○	○	○	○	○

14. If you chose strongly agree or strongly disagree as a response to either of the statements in question 13 please comment on why. Also, feel free to add any additional comments that you may have about this issue.

Please consider the following comments in regard to: Different accommodations due to religious practices of labor force (for example, unable to wear hard hats).

-health and safety is a strong pillar of our value proposition and no compromise is allowed. Our success is measured by our safety records.

-Religion belief and practices are extremely important in many countries like India and some Muslim Countries and they dictate sometimes the clothing and certain practices. It is very important to respect these rules and accommodate them to the extent practical in the construction methods.

-safety has to be number one! One must work with the culture to make them understand this. It has been accomplished every place I have been. It is sometimes difficult to get workers stateside to buy into best safety practices

-Additional items include prayer times, food accommodations, etc. It also extends to the facility design - in some cases it will increase the required SF and add cost.

-The biggest issue is not PPE; it can be provided and mandated as part of a subcontract. In Muslim countries however accommodations, e.g. Prayer locations are important.

-Simple aspects such as the wearing and issuing of PPE differ vastly between the various regions, even to the approach with regards to meals provided, grading of accommodation, observing of certain religious practices by expatriates.

-The biggest issue that I have recently run into is accommodating Muslim workers time for prayer during work shifts and building them a prayer room on every site. There really is no separation of religion and state in the Middle East.

-I can only comment for Asia but disregarding India. For the most part, religion is not a real factor when it comes to beliefs on items related to construction.

-I have had projects all around the world and have never had to make special accommodations on safety and personal protective equipment.

-How many US work sites have mandatory prayer rooms onsite?

-What is critical is to understand why and advocate, on the basis of what is right that PPE is in accord with these beliefs.

In the previous round of the survey, the following percentages of participants chose agree or strongly agree:

Importance: 50%

Uniqueness: 40%

15. Different accommodations due to religious practices of labor force (for example, unable to wear hard hats).*

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	○	○	○	○	○	○
2- UNIQUE	○	○	○	○	○	○

16. If you chose strongly agree or strongly disagree as a response to either of the statements in question 15 please comment on why. Also, feel free to add any additional comments that you may have about this issue.

Please consider the following comments in regard to: Differences in the local building code from the U.S. code or International Building Code.

-There are numerous differences in the codes and standards but often they intent is similar. The difficulty is cross referencing the local code or standard with US codes and standards.

-The differences towards international or U.S. building codes can influence total project cost and permit process heavily. It is good to understand the local codes and requirements.

-We see more and more countries creating their own building code using US or UK or EU as a reference.

-Local codes are the collective knowledge and experience on many requirements in the region where construction is executed. The international codes may not specifically address them. Besides it is the law of the country where work is done so they must be followed.

-In most locations it's an issue of cutting corners to reduce costs or pocket money.

-Earthquake zone, higher standards.

-In many cases the local codes can be more stringent that US or IBC.

-Whilst there may be the requirement for a local signoff of the design, as an example in Russia by the GOST authorities and managed by a local registered company, internationally accepted designs will be acceptable and may only require minor modifications, but there will definitely be a cost and schedule impact requiring attention.

-Normally the use of local standards in developing countries means that there is no standard. US standards many times simply do not apply or are impossible to follow.

-Often even the existence of accepted codes is an issue--establishing what will be used and documenting this is critical.

-For the most part, most of Asia's international codes are not far different than the US codes. It is in the enforcement that is where the difference lies.

-Trying to conform to IBC will require importing code compliant materials and tradesmen who can competently install them. O&M will require special training and stocking materials to make repairs.

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-There is no way to work in other country and not follow local codes. Best practice has been to do partnership with local companies.

-Understanding how to translate to local conditions is critical, whilst maintain a global standard that may, or likely may not, be supported locally is the challenge, organizations must determine their baseline and apply it, regardless of venue.

-U.S. standards are somehow known in some countries, but not in every country. Sometimes the U.S. codes are even not applicable to several countries.

-Based on project experience in numerous European countries, I personally found building codes in western cultures to be similar to US codes.

-generally international codes apply

In the previous round of the survey, the following percentages of participants chose agree or strongly agree:

Importance: 67%

Uniqueness: 40%

17. Differences in the local building code from the U.S. code or International Building Code.*

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	○	○	○	○	○	○
2- UNIQUE	○	○	○	○	○	○

18. If you chose strongly agree or strongly disagree as a response to either of the statements in question 17 please comment on why. Also, feel free to add any additional comments that you may have about this issue.

Please consider the following comments in regard to: Differing perceptions of your company reputation by locals.

-In many cultures, business relationships are based on personal connections (relatives) or long-term business relationships. It can be very difficult for a new player to enter the market and be able to operate on equal footing with the local participants.

-Our work is becoming more embedded in local market. we are asked to act locally and train locals. In each project we include a training program with our proposal. we want to be seen as contributing to local economy.

-Reputation of your company brings respect and reinforces the seriousness placed on work being performed. It also allows for more favorable T&Cs when subcontracting.

-More than just the company is the reputation of US companies or western companies in general

-I think if the company is good at communicating core values that they feel the same in Asia as they are in the rest of

the world about the company

-How your company is viewed should inform all aspects of engagement locally - perhaps I am missing the goal of this query?

In the previous round of the survey, the following percentages of participants chose agree or strongly agree:

Importance: 43%

Uniqueness: 17%

19. Differing perceptions of your company reputation by locals.*

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	○	○	○	○	○	○
2- UNIQUE	○	○	○	○	○	○

20. If you chose strongly agree or strongly disagree as a response to either of the statements in question 19 please comment on why. Also, feel free to add any additional comments that you may have about this issue.

Please consider the following comments in regard to: Differing relationship required with local labor supply and labor groups.

-In many cultures, business relationships are based on personal connections (relatives) or long-term business relationships. It can be very difficult for a new player to enter the market and be able to operate on equal footing with the local participants. We insist on working with local labor laws and to help developing strong relations with unions and local communities

-This is not necessarily unique to International work, one must understand the local unions from area to area.

-Understanding of local labor is very important. Mandated days off, work hours restrictions, labor availability, available skill sets, Third Country National availability and restrictions significantly impact schedules and cost.

-Again with similar reference to the above question, the application of local and regional labour laws can differ drastically between the various jurisdictions.

-militant unionism more typical in developing world than US

-Labor practices differ in different countries and the practices that other foreign firms use in another country is also critical

-Knowing how (and through whom) things work is critical - it may be not feasible to deploy in a given region - the earlier this is exposed the better.

-not really applicable outside U.S.

In the previous round of the survey, the following percentages of participants chose agree or strongly agree:

Importance: 69%

Uniqueness: 33%

21. Differing relationship required with local labor supply and labor groups.*

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	○	○	○	○	○	○
2- UNIQUE	○	○	○	○	○	○

22. If you chose strongly agree or strongly disagree as a response to either of the statements in question 21 please comment on why. Also, feel free to add any additional comments that you may have about this issue.

Please consider the following comments in regard to: Different level of local business competition.

-In many cultures, business relationships are based on personal connections (relatives) or long-term business relationships. It can be very difficult for a new player to enter the market and be able to operate on equal footing with the local participants.

-This is important when doing business in the developed world. seeking partnership with locals is becoming important and even imposed by local new rules.

-Expect some unusual ways and practices.. Some of them maybe harsh or even unethical attempts.

-Even the existence of local companies and the support or requirement that they are utilized

-Very important to understand how network is done in each country and the barriers to entry.

-Clarity as to who is in the market and exposing potential partnerships early can diffuse any significant competitive threats - or, at the very least, provide an early warning system as market feasibility is being considered.

-The competition tends to be the same companies that we compete against at home

In the previous round of the survey, the following percentages of participants chose agree or strongly agree:

Importance: 58%

Uniqueness: 28%

23. Different level of local business competition. *

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	○	○	○	○	○	○

2- UNIQUE ⦿   ⦿   ⦿   ⦿   ⦿   ⦿

24. If you chose strongly agree or strongly disagree as a response to either of the statements in question 23 please comment on why. Also, feel free to add any additional comments that you may have about this issue.

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Unsettled Issues From Round 1

After reviewing the comments preceding each issue, please consider the following statements in regard to the following issues and select the option that best represents your opinion;

1-According to your experience, this can be an IMPORTANT issue to be addressed when attempting to deploy a best practice in an unfamiliar country.

2-This issue is UNIQUE to deploying best practices in unfamiliar countries (i.e., it is not a common deployment issue in the United States).

After clicking save please do not close your browser until you have completed the survey, or you may lose your entered data.

Please consider the following comments in regard to: Differing understanding of what constitutes a contract (for example., scope definition, terms and conditions).

-This varies wildly around the country. In eastern Europe and the old Soviet Union, there are standards of construction that the locals will not deviate from and will be able to price if they were willing to deviate. In Asia (primarily China), there is no enforced standards and you will only get what demand. In fact, I would say you will typically get a little less than you demand no matter what you contract for because the local contractors will always push the envelope and assume you will not litigate (because you will lose).

-Many cultures do not hold contractual agreements as sacrosanct, instead viewing them as a seemingly endless basis for further negotiation; relationships are far more important in eastern cultures than written contracts - especially since civil law is very weak in some countries

-Every project is scrutinized during the risk assessments. Clear scope and terms of contract are a main reason for a Go No-Go decision.

-The level of education and awareness with some practitioners may lack even minimum understanding of local norms of contracts. Self-appointed actions may supersede in many cases.. Law enforcement may be overwhelmed and cases may not find a fair chance to be looked at..

-In Chile and Peru, like any country, clear scope definition are very important. Many contractors here are skilled claim artists when scopes are not clear.

-It is often the exercising or implementation of the contract. that provides the challenge

-and the cultural view of whether a contract actually constitutes the final agreement or whether everything is still open to interpretation and change

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-Contract signing for example, does not have the same meaning in China as it does in the US. In the US it is a binding document and the company that signs it needs to be held accountable for the contract. In China, the contract does not really mean anything. They feel free to violate it whenever they want and win if challenged.

-Clarity as to local custom and practice is critical.

-Varies by country; inexperience with, or no/poor mechanisms for dispute resolution to enforce terms of agreement can influence attitudes about contract importance.

-Clients tend to be international clients and local based clients

In the previous round of the survey, the following percentages of participants chose agree or strongly agree:

Importance: 74%

Uniqueness: 44%

25. Differing understanding of what constitutes a contract (for example, scope definition, terms and conditions).*

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	○	○	○	○	○	○
2- UNIQUE	○	○	○	○	○	○

26. If you chose strongly agree or strongly disagree as a response to either of the statements in question 25 please comment on why. Also, feel free to add any additional comments that you may have about this issue.

Please consider the following comments in regard to: Differing regulations on the importation and exportation of materials and equipment.

-The different regulations can cause heavy schedule delays and additional cost for interim storage. If not all regulations are clear, you can endanger the total delivery of important parts.

-In this challenging world, we work with our respective governments and respect international regulations on import/export

-importation restrictions and costs (taxes and duties) can significantly impact project cost and schedule. These are not issues in the US unless equipment is imported.

-Customs and duty regulations, beware!

-This on stands out because of our recent experiences in Brazil and some Asia countries where these extra costs require us to look within the country of expansion for suppliers to replace ones that we use globally

-In contract terms helps but sometimes is not enough. Each country might have its unique law or process that one should be aware.

-Clarity as to local custom and practice is critical.

In the previous round of the survey, the following percentages of participants chose agree or strongly agree:

Importance: 77%

Uniqueness: 53%

27. Differing regulations on the importation and exportation of materials and equipment.*

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	○	○	○	○	○	○
2- UNIQUE	○	○	○	○	○	○

28. If you chose strongly agree or strongly disagree as a response to either of the statements in question 27 please comment on why. Also, feel free to add any additional comments that you may have about this issue.

Please consider the following comments in regard to: Differing local availability of materials and equipment.

-In some countries we had to develop local capabilities to improve sources and availability of materials and equipment

-should be easily established and mitigated

-Not a lot of stock bulk materials or equipment available in Chile, many bulk materials must be imported for large capital projects

-Project execution strategies can be significantly impacted by availability of materials, e.g. designs changed, schedules impacted, methods influenced, etc. An example is a project done in Taiwan in early '90s where rolled structural steel shapes were not available and most large wide flange members were fabricated from plate. Also form decking availability, concrete quality, aggregate quality (high background radiation can influence some processes) etc.

-Availability of material is not usually a concern. The quality of that material is what I worry about constantly.

-lead time for availability of equipment tends to be significantly different in developing versus developed locations.

-There are many materials in Asia that are not regulated very well. The quality in many cases are disregarded even though their test results indicate they are in compliance. Many fake certificates.

-In some countries you will be importing over 75% of your materials.

-Issue to be addressed in the beginning of the project, NOT during execution.

-Determination of project delivery strategy will consider local sourcing.

-Often material is not available

In the previous round of the survey, the following percentages of participants chose agree or strongly agree:

Importance: 72%

Uniqueness: 44%

29. Differing local availability of materials and equipment.*

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	○	○	○	○	○	○
2- UNIQUE	○	○	○	○	○	○

30. If you chose strongly agree or strongly disagree as a response to either of the statements in question 29 please comment on why. Also, feel free to add any additional comments that you may have about this issue.

Please consider the following comments in regard to: Differences in currency required to be used on a project.

-In today's business environment, even a US-based project is likely to source materials from countries with other currencies.

-Because of the competition and volatility of currencies, major EPC contracts are now signed with multiple currencies clauses depending on sources of funding and supplies.

-This can be a damaging factor in the contract if risks are not well understood and protected.

-should be easily handled with relatively simple actions

-Not difficult to manage in general however inflation rates and currency stability can have a very significant impact on costs, payment methods (large advance payments required) contract terms (who absorbs the risk of fluctuations, etc.

-The management of the risks associated with foreign currency rate of exchanges remains the largest challenge.

-With proper cash and procurement management, you can mitigate a large portion of the risk. You cannot eliminate currency fluctuation risk entirely, but you can manage it with careful planning.

-Agree, it is critical to determine based upon market conditions

In the previous round of the survey, the following percentages of participants chose agree or strongly agree:

Importance: 40%

Uniqueness: 35%

31. Differences in currency required to be used on a project.*

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	○	○	○	○	○	○
2- UNIQUE	○	○	○	○	○	○

32. If you chose strongly agree or strongly disagree as a response to either of the statements in question 31 please comment on why. Also, feel free to add any additional comments that you may have about this issue.

Please consider the following comments in regard to: Differing geological and geographic considerations.

-Normal technical consideration; seismic design is an obvious example.

-should be easily established and mitigated

-Many conditions are unique. Availability of housing, transportation to get large equipment to site, etc.

-Road conditions, weather forecasts might impact schedule and ought to be considered during planning.

-Each location has specific geological attributes

In the previous round of the survey, the following percentages of participants chose agree or strongly agree:

Importance: 44%

Uniqueness: 28%

33. Differing geological and geographic considerations.*

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	○	○	○	○	○	○
2- UNIQUE	○	○	○	○	○	○

34. If you chose strongly agree or strongly disagree as a response to either of the statements in question 33 please comment on why. Also, feel free to add any additional comments that you may have about this issue.

Please consider the following comments in regard to: Differing restrictions on construction activity at jobsites (for example, limitations on hours when construction activities can proceed).

-When working in extreme weather temperature, restrictions on working hours are needed for the safety of workers.

-This is an issue that can be planned around.

-Or lack of any restrictions

-In China, they basically work 7 days a week, 10 hours a day and this is very common

-Impact on schedule and costs.

-Universally true, to varying degrees, informs project delivery strategy

-Safety procedures in foreign countries are often less rigorous that US and European practice i.e. Safety boots Fall arrest harnesses etc.

In the previous round of the survey, the following percentages of participants chose agree or strongly agree:

Importance: 57%

Uniqueness: 31%

35. Differing restrictions on construction activity at jobsites (for example, limitations on hours when construction activities can proceed).*

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	○	○	○	○	○	○
2- UNIQUE	○	○	○	○	○	○

36. If you chose strongly agree or strongly disagree as a response to either of the statements in question 35 please comment on why. Also, feel free to add any additional comments that you may have about this issue.

Unsettled Issues From Round 1

After reviewing the comments preceding each issue, please consider the following statements in regard to the following issues and select the option that best represents your opinion;

1-According to your experience, this can be an IMPORTANT issue to be addressed when attempting to deploy a best practice in an unfamiliar country.

2-This issue is UNIQUE to deploying best practices in unfamiliar countries (i.e., it is not a common deployment issue in the United States).

After clicking save please do not close your browser until you have completed the survey, or you may lose your entered data.

Please consider the following comments in regard to: Differing insurance and bonding requirements.

-Obtaining bonding is difficult in many locations around the world. You often have to provide a Letter of Credit because obtaining a bond is often a US requirement and the market does not support that locally.

-Some countries ask for large bond and that can harm the success of a project. a good reputation and relationship with a client can help easing the impact this issue.

-Again, watch this carefully.. You may be required to insure with local private or state agencies with completely different views and practices of insurance claims.

-Very rarely, if ever have a need for a bond. many companies in China are extremely large and have large government backing

-Some countries bonds are issued in 24 hours, some in 24 days...

In the previous round of the survey, the following percentages of participants chose agree or strongly agree:

Importance: 50%

Uniqueness: 36%

37. Differing insurance and bonding requirements.*

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	○	○	○	○	○	○
2- UNIQUE	○	○	○	○	○	○

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38. If you chose strongly agree or strongly disagree as a response to either of the statements in question 37 please comment on why. Also, feel free to add any additional comments that you may have about this issue.

Please consider the following comments in regard to: Different expectations/requirements for providing infrastructure improvements (for example, housing, roads, schools).

-In our time, we cannot lure communities with words. Developer need to provide a pay back to communities.

-Depending where you are in the country, you may end up providing anything between no support to full accommodation.

-It can different from place to place. See my comment above.

-Management of the expectations of the local community is a major consideration.

-Agreements with local stakeholders for infrastructure improvements should be negotiated up front and well documented, best during site purchase negotiations. Once project is underway and funds have been committed and spent local stakeholders can hold the project hostage for infrastructure upgrades. The owner has much less recourse overseas than in the US.

-The introduction of projects into certain remote areas change the future and the expectations arising there from irreversibly.

-Have experience with contracts for housing written and executed with no provision for infrastructure

-Falls squarely within the feasibility study setting expectations and managing to them.

-Frequently some level of community investment expected or required.

In the previous round of the survey, the following percentages of participants chose agree or strongly agree:

Importance: 60%

Uniqueness: 38%

39. Different expectations/requirements for providing infrastructure improvements (for example, housing, roads, schools).*

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	⊙	⊙	⊙	⊙	⊙	⊙
2- UNIQUE	⊙	⊙	⊙	⊙	⊙	⊙

40. If you chose strongly agree or strongly disagree as a response to either of the statements in question 39 please comment on why. Also, feel free to add any additional comments that you may have about this issue.

Please consider the following comments in regard to: Differing availability of local labor.

-Local labor can be scarce in some markets, but the greater problem in the developing world is finding skilled crafts. There is a huge disparity in the developing world between the haves and have nots. There is a very limited middle class, which limits the skilled trades. You will find hard working laborers and bright managers but very few strong first line supervisors

-Availability of suitably skilled/experienced local labour can be a major factor. Often labour will need to be brought from long way outside local area.

-If you work in very special countries like Nigeria you need to import your specialists as they are not available at the local market. This has a time and cost impact on your project and needs to be known

-We have a reputation to keep and our code of ethics should apply regardless of local labor laws.

-This can be a major issue if local labor does not provide for certain levels of skills or productivity but you may be required by law to employee in full or a fair percentage of the labor force from local at prescribed wages.

-should be easily established and mitigated - can be a real issue in the US also

-We don't see the multi-national labor force here in the US that you see say in the Middle East. Although you are starting to see a little in the Oil Sands in Alberta.

-Lack of local labor and ability to import foreign labor (visas) is often a key issue

-many of the work force in China are farmers. Need to train and monitor them continuously.

-This has many scenarios. You may have to import and house all of your labor. you need to ensure you comply with Trafficking In Persons laws. You may have local of local labor but they are unskilled. In some country there is local labor but it is expensive and have work hour restrictions.

-Assessment of available craft, skills sets etc. should set the basis for consideration of a project

-Availability of qualified or trainable labor more likely to be an issue.

In the previous round of the survey, the following percentages of participants chose agree or strongly agree:

Importance: 69%

Uniqueness: 43%

41. Differing availability of local labor.*

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	○	○	○	○	○	○
2- UNIQUE	○	○	○	○	○	○

42. If you chose strongly agree or strongly disagree as a response to either of the statements in question 41 please comment on why. Also, feel free to add any additional comments that you may have about this issue.

Please consider the following comments in regard to: Differing technical skills of locally available labor.

-Local labor can be scarce in some markets, but the greater problem in the developing world is finding skilled crafts. There is a huge disparity in the developing world between the haves and have nots. There is a very limited middle class, which limits the skilled trades. You will find hard working laborers and bright managers but very few strong first line supervisors

-Availability of suitably skilled/experienced local labour can be a major factor, requiring on-site training, increased supervision.

-If you work in very special countries like Nigeria you need to import your specialists as they are not available at the local market. This has a time and cost impact on your project and needs to be known

-Implement local resource development programs.

-You may run short of certain crafts at peak construction.. Price wars may impact your cost..

-Local governments and authorities believe their citizens are more skilled and better educated than they really are.

-should be easily established and mitigated - can be a real issue in the US also

-I believe it is equal both domestically and internationally.

-Major issue in finding appropriate skilled labour

-Labor skill levels vary much more overseas that in the US where union apprentice programs provide a more uniform workforce. Many overseas locations have little or no skilled labor force and Third Country National labor must be utilized and/or imported from other locations.

-Local availability of skilled labor can be quite limited in some circumstances. Where, for example, the government specifies that a certain percentage of engineering must be done in country but such resources are very limited, then projects may be working with inferior engineering deliverables that undermine any benefit that may be derived from deployment of best practices

-The assessment of these skills becomes a critical aspect of the projects.

-We have often had to train employees from the bottom up. This takes time and is very expensive.

-many of the work force in China are farmers. Need to train and monitor them continuously.

-Technical skills are not as available in developing countries.

-Assessment of available craft, skills sets etc. should set the basis for consideration of a project

-Availability of qualified or trainable labor more likely to be an issue.

In the previous round of the survey, the following percentages of participants chose agree or strongly agree:

Importance: 86%

Uniqueness: 52%

43. Differing technical skills of locally available labor.*

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	○	○	○	○	○	○
2- UNIQUE	○	○	○	○	○	○

44. If you chose strongly agree or strongly disagree as a response to either of the statements in question 43 please comment on why. Also, feel free to add any additional comments that you may have about this issue.

Please consider the following comments in regard to: Differing regulations relating to the handling of hazardous materials.

-Many developing countries do not have the same emphasis for protecting life and limb that is the norm in the US. It is not that the workers do not want to be protected. The problem is they are cheap, readily available and desperate for work. The workers are not trained because they are perceived as being like a commodity that can be replaced. The workers also cannot demand protection because they can be replaced easily. They can be trained but they are often not trained.

-Some are overcomplicated to the point it makes it near impossible and some can be loose and cause for a great concern

-should be easily discovered and mitigated

-The respect for the environment and handling of hazardous material is often closely linked to the respect for common law and the application thereof.

-Follow European or American standards period. Other countries typically do not have the sensitivity to this topic as we do.

-Company must set and then test against standards

In the previous round of the survey, the following percentages of participants chose agree or strongly agree:

Importance: 60%

Uniqueness: 48%

45. Differing regulations relating to the handling of hazardous materials.*

	Strongly	Disagree	Somewhat	Somewhat	Agree	Strongly

	Disagree		Disagree	Agree		Agree
1- IMPORTANT	◉	○	○	○	○	○
2- UNIQUE	○	○	○	○	○	○

46. If you chose strongly agree or strongly disagree as a response to either of the statements in question 45 please comment on why. Also, feel free to add any additional comments that you may have about this issue.

Please consider the following comments in regard to: Different methods for communication (for example, verbal, written, body language).

-Other countries/cultures deploy different levels of written communication in relationships and/or require deeper inter-personal relationships for different approaches to succeed.

-The right choice of the method of communication is essential in many countries; in particular choosing verbal instead of written communication in a first step can avoid creating un-necessary problems.

-Speaking local language and fluency in English importance

-It is very important to understand the complexities associated with interactions between high context and low context cultures.

-It is important for our process to keep track of communication and to document the situation.

-Very critical. Body language takes on different meanings everywhere, even within different parts of the USA.

-methods of communication critical in terms of construction best practices

-In Chile command of Spanish is very important in business communications. Inability to communicate in Spanish results in poor communications. In addition, Chilean people are extremely reserved and soft spoken. Loud voices and excessive mannerisms are viewed as a bit aggressive.

-This response is also related to No. 1 and can be tied directly to culture and customs. An important aspect to best practices is an understanding of the culture and customs of a country. Also, as generally English is the common language, it is very important to remember that it not the first language in an unfamiliar country.

-Communication is a key to any successful project. Understanding cultural norms of communications, body language (which can give insight into truthfulness, conviction and understanding) is also very important when working in a foreign location vs. the US. In some culture a nod merely means I hear you, not that I agree, unlike the norm in the US.

-Improper translation or interpretation from one language to another is common and can create significant confusion or misunderstanding

-In Asia, many times a person may shake his head in agreement when he has no idea of what he is agreeing to. One needs to state issues orally and in written format to insure the message is clear, and then ask for them to repeat what is being agreed to back for clarity.

-Obviously that working with Japanese and Chinese one would expect a big difference in all those languages (verbal, written and body) but other countries have also some unique features such as Chile and Mexico.

-Consideration of local custom and practice is critical, though equally critical is to balance bringing a fresh, respectful perspective to the localization of a particular practice or initiative.

-People in Asia are very kind and even they don't understand your explanation the say Yes understood . So you need to double check if it is really understood.

-Organization culture and current practice heavily influences receptivity and adoption of new ideas.

-With constant budget and schedule pressure, facility design and construction can often involve difficult confrontational business communication. Business culture in some countries cannot effectively deal with accurate and honest communication of difficult and unpleasant business issues.

In the previous round of the survey, the following percentages of participants chose agree or strongly agree:

Importance: 88%

Uniqueness: 50%

47. Different methods for communication (for example, verbal, written, body language).*

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	◌	◌	◌	◌	◌	◌
2- UNIQUE	◌	◌	◌	◌	◌	◌

48. If you chose strongly agree or strongly disagree as a response to either of the statements in question 47 please comment on why. Also, feel free to add any additional comments that you may have about this issue.

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Appendix H-3: Round 3 Delphi Survey

CII

Delphi Round 3

Page 1

The purpose of centralizing data collection through use of CII server-based software is to establish a centralized database to support CII research, benchmarking, and other CII committees working to support CII's mission. The centralized database should provide for more secure data collection and storage, and facilitates the sharing of data among authorized teams and committees while reducing the data collection burden on CII member companies.

All data provided for any CII survey in support of benchmarking and research activities by participating organizations are considered "company confidential." The data have been provided by participating companies with the assurance that individual company data will not be communicated in any form to any party other than CII authorized academic researchers and designated CII staff members. Any data or analyses based on these data that are shared with others or published will represent summaries of data from multiple organizations participating in the survey which have been aggregated in a way that will preclude identification of proprietary data and the specific performance of individual organizations.

CII

Delphi Round 3

Page 2

The following 6 ISSUES from Round 2 of the Delphi study did not reach consensus, hence their inclusion in Round 3. We are asking you to select again, but this time we are providing you the feedback provided by the respondents during Round 2. We ask that you consider this feedback in determining your choice in this third round Delphi survey.

After clicking save please do not close your browser until you have completed the survey, or you may lose your entered data.

After reviewing the comments preceding each issue, please consider the following statements in regard to the following issues and select the option that best represents your opinion;

1-According to your experience, this can be an IMPORTANT issue to be addressed when attempting to deploy a best practice in an unfamiliar country.

2-This issue is UNIQUE to deploying best practices in unfamiliar countries (i.e., it is not a common deployment issue in the United States).

Please consider the following comments in regard to: Different engineering expectations/requirements.

-local engineering expectations are usually driven by local conditions, and local materials and local rules and regulations. Not considering them important will lead to delays and costs

-Differences in custom and practice between countries can lead to normal assumptions made being costly. Example: In China design contractors tend not to include full details on construction drawings, leaving interpretation to the construction contractor, and by custom often sending teams of engineers to site to provide interpretation support/make changes on the run. Being unaware of this can provide an interesting experience!

-The quality of engineering is highly variable and the earlier a framework for assessing local expertise as applied to the specific project requirements the better - then the owner can make a decision who is best to do what - then the most important element looms large - INTEGRATION

-Once again expectations and requirement are important no matter where you are

-Companies working in unfamiliar countries must understand exactly the norms, local practices, roles and responsibilities as well as general contract conditions and the legal procedures to resolve disputes. The base assumption by clients is that the performing vendors are fully aware and digest the local practices and often times the supplier makes assumptions based on their common experiences from their home country or other countries they worked in.

In Round 2 of the survey, the following percentages of participants chose agree or strongly agree:

Importance: 64%

Uniqueness: 42%

1. Different engineering expectations/requirements.*

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	○	○	○	○	○	○
2- UNIQUE	○	○	○	○	○	○

Please consider the following comments in regard to: Different accommodations due to religious practices of labor force (for example, unable to wear hard hats).

-Accommodating the social and religious norms of a Muslim workforce is a much greater impact outside the US. Project Managers need to understand these cost, schedule and layout implications when planning execution.

-The most important issue is related to prayers and respecting fasting time in Muslim countries.

-It's not that you don't impose same safety conditions for example, you may just have to do it in another way. However I have not really seen religious or philosophical rejection of hard hat or other similar PPE, only cultural (i.e. making people actually wear it and understand why they must do so)

-Hard hats and turbans are not compatible but some people have used smaller turbans.

-There has to be a balance between what is perceived as best practice in NA and what other large parts of the World consider acceptable/workable. Corporate and national NA standards cannot work successfully in other national/religious belief systems and practices without some accommodation.

-There are no accommodations for safety

-In many cultures the concept of safety and protection can be vague. People believe in fate and destiny and the common practice on enforcing safety is far behind the minimum requirements. Some countries consider religion the highest priorities and it cannot be missed for sake of work.. Prayers, fasting, certain rituals would be practiced regardless of work requirements. Work design must carefully take these factors into account.

-Firstly the issue of hard hats. Muslims do not have any restrictions on wearing head dress on on their hair. Short of asking them to wear pigskin gloves, there really should not be any limitations on PPE. My experience in India, the Middle East and the Far East is that if you give people access to PPE and ask them to wear it they simply do. Footwear is an interesting issue where people do not generally wear shoes, however, giving them access and being sensible (not something well done in the US) will give a satisfactory outcome. However, there are some religions that do have an issue with hair and the Sikh religion is certainly one. Here my experience is more from the army where a Sikh will have a top knot with a small cloth covering and trimmed beard to allow him to wear a combat helmet and respirator. They certainly do this regularly so I don't see an issue from a construction PPE point of view

In the previous rounds of the survey, the following percentages of participants chose agree or strongly agree:

Importance:........Round 1- 50%.....Round 2- 70%

Uniqueness:......Round 1- 40%.....Round 2- 61%

2. Different accommodations due to religious practices of labor force (for example, unable to wear hard hats).*

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	○	○	○	○	○	○
2- UNIQUE	○	○	○	○	○	○

Please consider the following comments in regard to: Differing perceptions of your company reputation by locals.

-It is becoming a major differentiator when competing in some markets against Asian companies.

-Your reputation follows you everywhere. It is important, but not unique.

-This is more a commercial consideration in terms of ability to influence and win business rather than a project execution concern.

-perception of ones company is paramount no matter where you are

-Any new comer has to demonstrate ability to work with locals. Best ability can be created when joint ventures or partnership is created with locals. The importance comes from finding the top notch local firms that can collaborate on a fairly high standard and drive new, improved norms in the local market.

-There is no question that your relationships within a country in the Middle East and China will affect your ability to win business. It is not won on price or performance and relationship takes a lot of time and effort to develop. Part of this is what sort of reputation people see of your company. In many cases unless you are an Exxon or Shell no one will have heard of you anyway.

In the previous rounds of the survey, the following percentages of participants chose agree or strongly agree:

Importance:.......Round 1- 43%.....Round 2- 52%

Uniqueness:.....Round 1- 17%.....Round 2- 24%

3. Differing perceptions of your company reputation by locals.*

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	○	○	○	○	○	○
2- UNIQUE	○	○	○	○	○	○

Please consider the following comments in regard to: Differences in currency required to be used on a project.

-Because of the competition and volatility of currencies, major EPC contracts are now signed with multiple currencies clauses depending on sources of funding and supplies

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-Currency is something which can be managed with some forethought and experience. Use those parts of your company for whom this is every day activity

-A normal consideration on any international project; management of risks/exchange rates etc. should be included in project execution procedures. Government restrictions on currency management (e.g. Chinese RMB) naturally require particular attention.

-If you are going to do international work you better have finance people that understand international currencies

-In countries with construction boost driven by some sort of casual event (World cup, International Games) or incidental wealth driven by prices of some natural export resources the economy tends to see sharp, hard to predict waves of tide and rise. The same risk exist in government controlled economies. Contractors must be very careful in signing contracts paid in local currencies in full or in part. A well anticipated profitable contract may turn into a major loss if currency value fluctuates sharply against a more stable (predictable) currency (USD, Euro, Swiss Frank etc..)

-Well, what a set of US centric comments. Clearly the ability to understand the tax strategy, use of which currencies and the project hedging strategy is essential. Selling in a basket of currencies is a good idea. Hedging control your risks. However, the need to do it is clearly important

In the previous rounds of the survey, the following percentages of participants chose agree or strongly agree:

Importance:.......Round 1- 40%.....Round 2- 45%

Uniqueness:.....Round 1- 35%.....Round 2- 30%

4. Differences in currency required to be used on a project.*

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	○	○	○	○	○	○
2- UNIQUE	○	○	○	○	○	○

Please consider the following comments in regard to: Differing geological and geographic considerations.

-Not really a key issue in adopting best practices; more an issue in defining good project execution strategy

-We take these issues into consideration stateside but we do it as a normal course of business, it is just not a big deal we do it as a habit.

-Just need to make sure there is sufficient investigative clauses of natural attributes impacting the design..

-No different to any other way of establishing the design basis of a project

In the previous rounds of the survey, the following percentages of participants chose agree or strongly agree:

Importance:.......Round 1- 44%.....Round 2- 33%

Uniqueness:.....Round 1- 28%.....Round 2- 18%

5. Differing geological and geographic considerations.*

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	○	○	○	○	○	○
2- UNIQUE	○	○	○	○	○	○

Please consider the following comments in regard to: Differing restrictions on construction activity at jobsites (for example, limitations on hours when construction activities can proceed).

-one can be restricted stateside so this nothing out of the ordinary that you wouldn't consider when bidding a job

-This is clearly an important issue. When can you do civil works, pour concrete, ship equipment up rivers or access roads. All this needs to be understood as part of the bidding process and the proposed execution strategy

In the previous rounds of the survey, the following percentages of participants chose agree or strongly agree:

Importance:.......Round 1- 57%.....Round 2- 58%

Uniqueness:.....Round 1- 31%.....Round 2- 18%

6. Differing restrictions on construction activity at jobsites (for example, limitations on hours when construction activities can proceed).*

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1- IMPORTANT	○	○	○	○	○	○
2- UNIQUE	○	○	○	○	○	○

Appendix I: RT294 Roster

Phil Barth, U.S. Department of State

William Brittan, Abbott

David Campbell, Air Products and Chemicals, Inc.

George Chronis, SNC Lavalin Pty Limited

Deron Cowan, Zurich

Jesús M. de la Garza, Virginia Tech

Timothy Horner, Faithful+Gould

Sara Horsey, Virginia Tech

Alexandre Ikonomidis, Alstom Power Inc.

Mahmoud Khoncarly, URS Corporation

Carlos Mallol, CSA Group

Sean Musick, Wood Group Mustang

Renee Perry, Fluor Corporation

James J. Sexton, The Procter & Gamble Company

John E. Taylor, Virginia Tech

Laura Vaughn, Chevron

Willis Weatherford, Siemens Energy, Inc.

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