COUNTRY RISK ASSESSMENT IN THE CONSTRUCTION INDUSTRY

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ABSTRACT

COUNTRY RISK ASSESSMENT IN THE CONSTRUCTION INDUSTRY

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Every business involves risk, but due to its nature, construction business involves more risk than many other industries. Therefore, risk assessment is indispensable to the success of construction companies in terms of, preventing dramatic financial losses. When the decision process for expanding the operations in the international construction market is concerned, it becomes more important for companies to analyze the risk of the target country. For this reason, construction firms benefit from many different risk assessment methods. Contractors prevalent practice of risk assessment is identifying related risks and making an evaluation relying on their personal judgments (without substantial explicit support), but none of the applied methods is construction specific. To overcome this, a construction specific country Risk Breakdown Structure (RBS) is prepared. While preparing this construction specific RBS, not only macro level country risks but also market risks for construction are considered in order to reflect the real risks of performing construction business in foreign countries. Consequently, a tentative country RBS specific for construction industry is constructed and its reliability is tested by interviews carried out with six professionals from four Turkish construction companies operating in international markets. After finalization of the RBS, utilization method of practical aspects of RBS is questioned by interviewing the experts. Finally, a case study is conducted to propose a company-specific system for

the implementation of RBS. The case study findings demonstrate the applicability of RBS and its potential as a systematic country risk assessment tool.

Keywords: Risk Breakdown Structure, country risk, construction specific risks, Turkish construction companies

ÖZ

İNŞAAT SEKTÖRÜNDE ÜLKE RİSKLERİNİN DEĞERLENDİRİLMESİ

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İş dünyasında pek çok sektör belirli ölçülerde risk içermesine karşın, inşaat sektörü doğası itibari ile diğer sektörlerin birçoğundan daha fazla risk taşımaktadır. Bu nedenle, risk değerlendirmesi şirketlerin geleceğine zarar verebilecek kayıpları önlemede önem taşımaktadır. Şirketler uluslararası pazarlara açılma kararı verdiklerinde, hedef ülkenin risk değerlendirmesi daha da önemli bir konuma gelmektedir. Bu yüzden, bazı inşaat firmaları çeşitli risk değerlendirme yöntemlerini kullanmaktadır, ancak bu yöntemlerin hiç biri inşaat sektörüne özgü değildir. Bu araştırmada, bu eksikliği gidermek amacıyla inşaat sektörüne özgü ülke risk değerlendirme ayrıştırma çizelgesi oluşturulmuştur. İnşaat sektörüne özgü ülke risk ayrıştırması oluşturulurken, yabancı bir ülkede inşaat yapmanın gerçek risklerini yansıtabilmek için, sadece makro düzeydeki ülke riskleri değil, inşaat sektörünün kendine özgü riskleri de değerlendirilmiştir. Sonuç olarak, inşaat sektörüne özgü bir risk ayrıştırma çizelgesi oluşturulmuş ve bu çizelgenin güvenilirliği uluslararası piyasalarda iş yapan Türk inşaat firmalarıyla gerçekleştirilen görüşmelerle sınanmıştır. Çizelgenin güvenilirliği test edildikten sonra, bir inşaat firmasında uygulaması yapılarak vaka analizi olarak sunulmuştur. Vaka incelemesi bulguları, risk ayrıştırma çizelgesinin uygulanabilirliğini ve

sistematik bir ülke risk değerlendirmesi aracı olarak kullanılabilirliğini ortaya koymaktadır.

Anahtar Kelimeler: Risk ayrıştırma çizelgesi, ülke riski, inşaat sektörüne özgü riskler, Türk inşaat firmaları

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Dedicated to my family

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LIST OF ABBREVIATIONS

AHP	Analytic Hierarchy Process
ANP	Analytic Network Process
CEO	Chief Executive Officer
CIA	Cross Impact Analysis
CIA	Central Intelligence Agency
CIS	Commonwealth of Independent States
ENR	Engineering News Record
EPC	Export Promotion Center
GNP	Gross National Product
HRBS	Hierarchical Risk Breakdown Structure
ICRAM-1	International Construction Risk Assessment Model
INTES	Turkish Construction Industrialists' Employer Trade Union
ISO	International Organization for Standardization
PMBOK	Project Management Body of Knowledge
PMI	Project Management Institute
PWHC	PricewaterhouseCoopers
RBS	Risk Breakdown Structure
TCA	Turkish Contractors Association
UAE	United Arab Emirates

CHAPTER 1

INTRODUCTION

The construction industry contains more risk and uncertainty than many other industries, especially in foreign markets. This thesis is concerned with international contractors aiming to assess construction market risks at different countries.

The objective of this study is to present a construction specific country RBS to provide a systematic list to assess country risk before conducting business in a foreign market. Also a model is presented to illustrate the RBS application in an organization.

Although some previous research in the literature aimed at determining the risks in the construction business, number of studies that have exclusively mentioned and focused on construction specific country risks is rather low.

The RBS is prepared with an extensive literature review and planned to be revised in the light of the suggestions of experts. In this context, an interview study is conducted with six experienced managers of international construction companies. These managers' experiences and methods they use to assess country risks are investigated. As a result, a comprehensive country RBS is prepared and its application procedures are defined by applying it to a real construction company.

This thesis begins with an explanation of basic concepts, namely risk management, risk assessment and country risk assessment. It is followed by a review of previous research efforts on country risk assessment. In Chapter 3, a general overview of the Turkish construction contractors operating abroad during the last three decades is presented. In Chapter 4, a country RBS that has been developed for construction industry is presented and research methodology is discussed as well as the contents

of the questionnaire study. Chapter 5 presents preliminary research findings about the completeness of RBS factors. Chapter 6 questions how RBS can be used effectively in a construction company, and depending on the findings of the case study, a system is proposed for practical application in organizations.

Following the main text, this thesis also includes five appendices. Appendix A presents a sample of the questionnaire used through out the interviews. In Appendix B, revised form of the construction market specific country RBS can be found. Appendix C contains the case study questionnaire and diagram which is used to illustrate RBS application in companies. Appendix D and E presents the country risk assessment case study evaluation template sheets which are used for evaluating risks associated with construction business in the case country.

CHAPTER 2

RISK MANAGEMENT

As previously indicated, the construction industry is subject to more risk and uncertainty than many other industries. The process of taking a project from initial investment appraisal to completion and into use is complex, generally bespoke, and entails time consuming design and production processes. It requires a multitude of people with different skills and interests and the co-ordination of a wide range of disparate, yet interrelated, activities. Such complexity moreover, is compounded by many external, uncontrollable factors (Flanagan and Norman 1993).

Flanagan and Norman stated, in view of the inherent risks in construction, it is surprising that the managerial techniques used to identify, analyze and respond to risk have been applied in the industry only during the last decade. Most people would agree that risk plays a crucial role in business decision–making. There is less agreement about what constitutes risk. It is well-publicized and much talked about, and yet intangible. Risk can manifest itself in numerous ways, varying over time and across activities. Essentially, it stems from uncertainty, which in turn is caused by lack of information.

Flanagan and Norman (1993) also indicated, numerous texts are available which deal with the underlying theoretical concepts of risk and with techniques which identify and manage it. However, there is a gap between the theory and the techniques proposed to manage risk, and what people do in practice. Intuition, expert skill, and judgment will always influence decision-making, but a set of tool is now needed which enable risk management techniques to be put into practice in the construction industry. Few people would deny the importance of risk management, but few analyze the risks in practice other than by using intuition and experience.

Flanagan and Norman described that, risk management is not new, nor does it employ black magical techniques. It is a system which aims to identify and quantify all risks to which the business or project is exposed so that a conscious decision can be taken on how to manage the risks.

Risk management is not synonymous with insurance, nor does it embrace the management of all risks to which business is exposed. According to Flanagan and Norman, in practice, the truth lies somewhere between the two extremes. A risk management system must be practical, realistic and must be cost effective. Risk management need not be complicated nor require the collection of vast amounts of data. It is a matter of common sense, analysis, judgment, intuition, experience, gut feel and a willingness to operate a disciplined approach to one of the most critical features of any business or project which risk is generated. (Flanagan and Norman 1993)

Risk management includes the processes concerned with conducting risk management planning, identification, analysis, responses, and monitoring and control on project. The objectives of risk management are to increase the probability and impact of positive events and decrease the probability and impact of events adverse to project objectives. According to PMI's PMBOK (2000), Project risk management processes include:

Risk Management Planning – deciding how to approach, plan, and execute the risk management activities for a project
Risk Identification – determining which risks might affect the project and documenting their characteristics
Qualitative Risk Analysis – prioritizing risks for subsequent further analysis or action by assessing and combining their probability of occurrence and impact
Quantitative Risk Analysis – numerically analyzing the effect on overall project objectives of identified risks

Risk Response Planning – developing options and actions to enhance opportunities and reduce threats to project objectives
Risk Monitoring and Control – tracking identified risks, monitoring residual risks, identifying new risks, executing risk response plans, and evaluating their effectiveness throughout the project life cycle. (PMI's PMBOK2000-third edition)

According to Tah and Carr (2000) risk management process phases include: identification, where the risks that affect a project or organisation are formally identified; assessment, where the identified risks are assessed and the likelihood and severity of their occurrence are determined; analysis, where the effects of risks on the tasks, the project and the organisation are calculated; control, where measures and remedial actions are implemented to either mitigate or control the identified risks; and monitoring and feedback, where the whole risk process is reviewed to ensure that the risks are being controlled effectively, that remedial measures are being implemented properly, and to gather information that may be useful at a later date.

Tah and Carr state that, all approaches to risk management emphasize the need to identify risk sources at the outset. This involves determining what risks may be present and classifying them appropriately. The process of classification is very important as it attempts to structure the diverse risks that may affect a project or organization. Many approaches have been suggested for classifying risks, in which the hierarchical risk breakdown structure (HRBS) found to be the most useful. The HRBS allows the separation of risks that as a result simplifies the assessment of these risks. This hierarchical representation of risks within a project is used as the basis for a formal model of risk assessment proposed by authors (Tah and Carr, 2000).

The second process within the risk management process is risk assessment. Here the technical aspects of each risk are defined; in particular, the likelihood, severity, and timing values are determined. These values are defined using linguistic variables, such as *low*, *medium* and *high*, with additional adverbs including *very* and

somewhat also being used. Descriptive phrases are used as they are representative of the type of language used by project managers to describe risks, rather than the cumbersome, and often erroneous, process of applying statistical probabilities (Tah and Carr, 2000).

Risk inter-dependencies are also determined during risk identification and assessment, and are defined using risk dependency chains. These show all the risk factors and the risks they affect and, in turn, the other risks, tasks and the project that they may affect (Tah and Carr, 2000).

Through literature survey, the identification stage of risk management is found to be the most important stage, because here all risks involved in a project or a country are identified. If some of the risks were not considered or can't be identified, the whole risk management process will be incomplete which may lead to severe results. Following process is the risk assessment, or qualitative risk analysis as named by PMBOK. As previously mentioned, this is the initial analysis by prioritizing the risk by assessing their probability or likelihood of occurrence and severity. Therefore this process is also extremely important as it is the initial evaluation and as it requires the complete understanding of the situation and project needs in order to result in a complete risk analysis.

2.1. Country Risk Assessment

Even though international construction is not a new phenomenon, globalization provides the possibility of new opportunities to construction companies. Developing countries need new infrastructure and buildings and welcome specialized contractors from industrialized countries. The lowering of international barriers also allows construction companies to conduct business in developed countries such as United States and the European Union (Gunhan and Arditi 2005a). Therefore, globalization of construction markets is allowing more local firms to compete internationally. However, entry decisions for international construction markets are difficult due to the uncertainties associated with the international construction domain. International projects involve not only the uncertainties that arise on

domestic construction projects, but also the complex risks that are particular to international transactions (cited in Han and Diekmann 2001).

International construction business is sensitive to world events and it entails political, financial, cultural and legal risks. These complex variables that affect the performance of construction companies in overseas markets need to be considered in international expansion decision. There exist several reasons for construction firms to expand their business into international markets. These reasons include stagnant domestic markets, spreading risk through diversification into new markets, competitive use of resources, and taking advantage of the opportunities offered by the global economy. Technological advances, political reform, worldwide trends toward privatization and an increasing recognition of economic interdependence, represent the primary forces of globalization (cited in Gunhan and Arditi 2005a). But as mentioned before, the international market for construction-related services can be described as complex, uncertain, and risky. There are prospects for sizeable growth and profits for organizations that enter the global arena just as there is a great potential for failure. International work is unusual and challenging. According to Kangari and Lucas (1997), the difficulties are related to client communications, understanding a new culture, avoiding local politics and supervising a diverse group of professionals (cited in Gunhan and Arditi 2005b).

According to Engineering News Record (Engineering News Record 1994-2002), almost 15.1% of companies among the "top 225 global contractors" have sustained losses on their international markets, while only 9.7% of them have suffered losses in domestic projects. It implies that the international construction market involves higher risk, but cannot always secure higher returns for the effort. Perhaps this explains why, in contrast to the globalization trend, only 19% of current "Top 400 U.S. Contractors" actively seek and conduct international contracts (Engineering News Record 2002) (Han, Diekmann, and Ock, 2005). Furthermore, Messner (1994) states that despite the complexity and difficulty of international market entry decisions, most construction firms have entered international markets based on personal intuition or previous experience, both by which are easily influenced by

uncertainties and biases (cited in Han and Diekmann, 2001). Therefore, in the light of the prevalent practice, it may be concluded that using systematic country risk assessment techniques is indispensable to the survival of the construction companies, especially for the contractors contemplating initial entry to international markets.

All in all, concern over international business risks has spawned the development of the country risk evaluation. Newman (1981) defines country risk as "either an outright loss or an unanticipated lower earnings stream in cross border business, caused by economic, financial or socio-political events or conditions in a particular country that are not under the control of a private enterprise or individual" (cited in Han and Diekmann, 2001).

2.2. Previous Studies on Country Risk Assessment

According to Tanaka (1984), country risk, in general, involves war, revolution, prohibition of remittance, nationalization of projects, sudden change of tax rates, sudden changes in project contracts by the government, and other unanticipated government control. The traditional method of assessment is fully qualitative system that does not have a standard formula with respect to analytical span and degree of elaboration, and utilizes subjective rather than objective processes. The most common approach is a checklist system (cited in Han and Diekmann, 2001).

A number of authors have described risks of international construction and many others proposed methods for assessment of these risks. Following paragraphs explains some of these studies.

Since traditional political risk analysis used by manufacturing or heavy industrial firms for capital investment decisions does not adequately address contracting risks, Ashley and Bonner (1987) have developed an alternative approach for political risk assessment of international construction. Authors first mentioned the properties of international construction environment and how the multinational contractor behaves in such an environment. Then political source variables and project

consequence variables are listed; which are treated as the major characteristics and impacts on the multinational contractor's environment. Finally, implementation steps are explained as information gathering, risk identification, impact assessment, probabilistic assessment, evaluation and action and updating and monitoring and then example application is presented. Authors reflected the impact of political risks on construction associated consequence variables such as labor cost, material cost, overhead cost and revenue received by the firm.

Han and Diekmann (2001) proposed risk based analytical methodology for go/no-go decision. They adapted cross-impact analysis (CIA) method for this go/no-go application to assess uncertainties associated with international construction. This model includes a total of 32 variables which are conceptualized by grouping them in five set of variables. One set of variables, "country conditions", represents each country's unique, a priori atmosphere for conducting trade. These are cultural and legal, political, economic, geography and climate, and environmental conditions and are treated as being uncertain. Construction contractor's decision strategies are the second set of variables. Specifically, the contractor's resources, experience, management skills, owner relationships and strategic partnerships are defined as strategic variables and these variables are presumed to be controllable. Country condition variables and decision strategies form the initial conditions for the go/no-go analysis. The third set of variables is impacted by either the country conditions or the decision strategies and is called intermediate variables. The fourth type of variables reflects the likely outcomes of the project. Finally, the fifth set of variables is the outcome variables by which go/no-go decision is made. These are "project profitability" outcome and "the other benefits" outcome. The model employed by defining initial country conditions, the initial contractor decision strategies, and the appropriate cross-impact relationships for the model. Using the cross-impact method, the initial and strategic conditions are propagated through the model to the outcome variables. The value for the outcome variables provides the normative metric by which the go/no-go decision is made.

In view of construction specific country risks, the proposed method by Han and Diekmann is of great value/valuable in illustrating the CIA relationships and the significance of impacts that the country risks have on construction projects' outcomes. Besides, the proposed method based on shortcomings of existing tools for international market entry decisions that focusing mainly on specific fragmented areas, such as political or economic exchange risk. However, although the authors' country conditions definition is more comprehensive, country risks items under the headings are not clearly defined. Since authors aim is to propose an analytical go/no go decision method, and the model employer will define the country risks that have impacts on project outcomes, a construction specific country risk list is not an outcome of this study although/yet the risks specific to international construction projects mentioned in the text.

Dikmen and Birgonul (2004) proposed a neural network model to estimate attractiveness of international construction projects, rather than assessing risks and opportunities separately. Authors developed a decision support tool that can classify international projects with respect to attractiveness of the project or market and competitiveness of a company, based on the experiences of Turkish contractors in overseas markets. The model can be used to guide decision makers on which type of data should be collected during international business development and further help them to prepare priority lists during strategic planning.

Chua et al. (2003) indicated in their study that obstacles in East Asian cross-border originate from five aspects: business environment risk, regulatory restrictions, contractual arrangements and differences in standards and in culture. Authors listed the important obstacles that contractors could be faced with while doing business in East Asian countries. Since the likelihood of occurrence of these obstacles as well as their impact on the profitability of cross-border construction is uncertain and the degree of their effect also varies across East Asian countries, authors made a survey of top international construction firms based in Singapore, in which the significant obstacles or cost growth factors and their impact on cost growth in tendering, construction, and overheads are determined. In particular, they compared the risk

situations in China and Singapore. Research brings out the cost growth causes in international markets.

Jaselskis and Talukhaba (1998) described the characteristics of developing countries that should be interest to any contractor considering projects in these parts of the world. Additionally, authors mentioned results from a study that identifies the top information requirements in 15 key areas, which are critical for firms interested in working abroad. Finally, authors provided a discussion of characteristics of the construction environment in Kenya as an example of bidding considerations in a typical developing country. Paper provides important information for the risks associated with international construction environment of developing countries, which should be considered while doing business in such foreign countries. However, as the paper discussed unique differences between developed and developing countries, a generic risk list is not presented by the authors.

Birgonul and Dikmen (2001) made a research to identify risks faced by foreign contractors that had worked and/or have been working in Turkey and analysed the impact of these risks on the project success. Within the context of the paper, risk assessments of foreign contractors on the project success are presented in the light of survey results. Research is contributed to identification of construction associated country risks by explaining the most significant problems in the Turkish construction sector.

As being one of the recent important studies, Hastak and Shaked (2000) proposed an International Construction Risk Assessment Model (ICRAM-1) that assists the user in evaluating the potential risk involved in expanding operations in an international market. The model provides to analyze the risk at the macro level (or country environment) first and then market, and project levels. Authors also present the potential risk indicators at the macro, market and project levels. The ICRAM-1 is designed to examine a specific project in a foreign country. Model quantifies the risk involved in an international construction investment which is one of the preliminary steps in project evaluation and gives four main results as; high-risk

indicators, impact of country environment on a specific project, impact of market environment on a specific project and overall project risk. The presented hierarchies of risks at macro and market level are valuable attempts in listing the country risks specific to construction which may form a basis for future researches on the issue.

Chan and Tse (2003) aims to establish a valid foundation for further research on the impact of cultural issues on contractual arrangements, conflict causation, and selection of dispute resolution mechanisms for international construction projects. Authors review the characteristics of international construction activities and discuss the cultural contextual factors that contribute to conflict and difficulties in the management of the international construction projects.

Gunhan and Arditi (2005a) evaluated the factors related to a construction company's decision to expand into international markets by surveying the executives in charge of international construction of large United States based contractors. Authors indicated that decision to expand must be based on a good understanding of the opportunities and threats associated with international business, as well as the development of company strengths relative to international activities. The information was collected by means of two rounds of a Delphi survey, the results of which were used as input in an analytic hierarchy process (AHP). As a result, they listed the most import factors of company strengths and threats and opportunities in international business.

In another study of Gunhan and Arditi (2005b) authors mentioned the necessity of following a disciplined and well-informed strategy while deciding to enter international markets. Therefore authors purposed an International Expansion Decision Model that enables construction companies to make a decision relative to expanding their business into international markets and into a particular country. In the first step of the model, the company decides whether it has the resources and organization to realize such an expansion, by evaluating company strengths and threats and opportunities in international markets. If the outcome of the first step is positive, then in the second step, model allows the company to test if the benefits of

conducting business in a specific country exceed disbenefits. If the outcome is positive, the model recommends the most appropriate entry mode.

Although the threats of conducting business in an international market such as interest rate increase or cultural differences is presented in the former study of the authors, costs of conducting business in a particular country is not explained with the desired level of detail and just listed as economic, political, financial, operational and security risks and taxation and legal environment of the country.

Through the literature survey it is observed that the major shortcoming of the previous researches is the fact that none of the lists include the entire risks specific to international construction or specifically address the construction market. Although the risks of conducting business in international markets or problems faced during construction are mentioned, there is not a comprehensive risk list containing both the country state risk that have impact on construction business and the construction market risks that is affected by the country conditions. Therefore, in country risk assessments or in expanding decisions to foreign markets, contractors are in need of construction specific tools. For this purpose, the main objective of this thesis is to propose a country RBS specific to construction including entire country risks associated with the international construction.

CHAPTER 3

OVERVIEW OF TURKISH CONSTRUCTION CONTRACTING SECTOR OPERATING ABROAD

3.1. Turkish Contracting In International Markets

The internationalization process of Turkish contractors started during the mid-1970s, a period when Turkey faced serious economic and political difficulties. The embargo imposed after the Cyprus crisis in 1974 particularly hurt the economy. The depressed home market coincided with the recession in the world caused by the surge in oil prices. This situation ironically provided an opportunity for the internationalization of Turkish contractors (cited in Öz 2000).

That shrinking of the economy in Turkey and the bottleneck in the construction sector caused slowing down of the investments in the public and private sectors, therefore foreign contracting services gained importance and construction companies has forced to concentrate more on business abroad.

The first country to which Turkish contractors exported their services was Libya, where they started their projects by importing the necessary technology from European countries. Later on, the growing Turkish contracting services expanded to other foreign markets such as Iraq, Jordan, Saudi Arabia, Kuwait, the United Arab Emirates, Yemen and Iran. Particularly during the 1970s, 90% of the expatriate works undertaken were realized in Arab countries.

Since the beginning of the 1980s, the Turkish Contractors have oriented themselves more towards the former Soviet Union countries. In the 1990s, due to the economic depression and the political uncertainties in the Middle Eastern and North African

countries, the Turkish Contractors have focused predominantly on the Commonwealth of Independent States, Eastern Europe and Asian countries. In this framework, they have undertaken important projects in the Russian Federation, Ukraine, the Caucasus, the Central Asian Republics, Germany, Pakistan and the Far East. Turkish Contractors have established very good relations with their clients, have achieved firsthand information about the region and the working environment, and whether by providing Turkish products and construction materials or by being provided with an area to work, they have accomplished a wide range of projects. Today, Turkish Contractors are working in 63 countries across four continents by providing services that can compete with international contracting standards in financial, administrative and technological dimensions.

According to the data provided by the Turkish Contractors Association (TCA), the activities of the Turkish contractors operating foreign countries can be explained, on the basis of decades, as follows:

3.1.1. Turkish Contractors Abroad between 1972-1979

Majority of the works undertaken during that period were in North Africa and especially in Libya (72.54%) and later on, in Saudi Arabia (15.44%), Iraq (7.25%), Kuwait (4.71%), Greece (0.06%) and Iran (0.01%).

The most important field of activity in this period was housing (32.14%), followed by harbor construction (18.11%), road/ bridge/ tunnel construction (11.67%) and urban infrastructure projects (8.19%).

3.1.2. Turkish Contractors Abroad between 1980-1989

During that period, majority of the works were also realized in Libya, despite a relative decrease in proportion (55.05%). Saudi Arabia (24.38%) and Iraq (11.16%) were ranking respectively second and third thus preserved their ranks. The emergence of the former Soviet Union market occurred during this period (3.50%). Other countries in which Turkish contractors provided services were Jordan,

Yemen, Iran, the USA, Tunisia, the United Arab Emirates, Kuwait and the Turkish Republic of Northern Cyprus.

During this period, housing activities (38.90%) and urban infrastructure projects (17.52%) increased and were followed by road/ bridge/ tunnel (6.69%) and agricultural projects (6.33%).

3.1.3. Turkish Contractors Abroad between 1990-1999

In the third decade, the trend changed abruptly. While the share of the Russian Federation increased to (36.19%), Libya's share decreased drastically to (11.19%). Libya was followed by Pakistan (6.92%) and Turkmenistan (6.67%). The works undertaken in the former Soviet Union countries, together, amounted to 61%.

In that decade, the array of the countries in which Turkish contractors were active was also widening. So that, Pakistan (6.92%), Turkmenistan (6.67%), Kazakhstan (6.55%), Uzbekistan (4.29%), Bulgaria (2.79%), the USA (2.69%), Azerbaijan (2.30%) and Croatia (1.86%) emerged as new markets. Other important developments were the considerable decrease in the proportion of works in Saudi Arabia (3.44%) and disappearance of Iraq from the scene. The "other" category comprised 33 countries with a proportion of 8%.

Despite a decrease in the proportion of housing works (23.89%), it preserved the first rank. Housing was followed by road/ bridge/ tunnel works (12.84%), industrial facilities (9.65%) and commercial centers (8.13%).

3.1.4. Turkish Contractors Abroad between 2000-2005

During that period, the number of countries, in which Turkish contractors worked, increased considerably. Nevertheless, the Russian Federation preserved the first rank (14.66%) and was followed by Romania (11.46%) and Kazakhstan (9.55%). Apart from Romania, United Arab Emirates (7.75%), Afghanistan (5.34%), Ireland (4.66%), Qatar (3.33%), Algeria and Morocco have emerged as new markets. After

the interventions that took place in Afghanistan and Iraq, the rebuilding activities in these countries were closely followed by TCA member companies.

When the types of work undertaken during that period are considered, road/bridge/tunnel works occupy the first rank (24.47%), followed by industrial facilities (14.52%), airports (8.33%), social and cultural facilities (6.54%) and housing (6.08%).

The total value of work undertaken in 2004 amounted to 5.4 billion US Dollars and the target of 7.0 billion US Dollars for the year 2005 was exceeded and reached 9.3 billion US Dollars.

3.1.5. Current Development Trends in Turkish International Contracting Services

In the previous years, Turkish contractors' first ranking abroad activity has been the housing projects. After the considerable change during the 2000-2005 period, scope of work of contractors widened to the realization of industrial facilities and also road-bridge-tunnel projects, petro-chemical facilities and airport projects, which required high expertise, project management skills and high technology. The proportion of these projects in the total work volume has reached to 59%. Meanwhile, the proportion of housing projects decreased considerably. Also, during the same period, there was a shift from small projects to bigger and technology-intensive projects, while market differentiation still continued.

The efforts put towards increasing the share of traditional markets resulted in market differentiation and an increased attention was given to certain countries in Africa, Latin America and South-East Asia. In parallel with the soaring oil prices, an increase of work opportunities in oil rich countries is expected to take place.

Also, while consortiums are being formed between domestic and foreign companies, there is a tendency towards global brands and in this context, TCA member companies have become large scale investors and managers in the countries where they once made their first entry by being mere contractors.

Turkish contractors, who have signed their names under more than 3000 projects in 63 countries across four continents mainly concentrated their activities in the Eurasian region, and have recently focused on penetrating into the African market. While new job opportunities in Latin America and South East Asia have been observed, it is foreseen that oil rich countries of the Middle East will certainly continue providing jobs. In addition to this, if stability is secured in Iraq, the sector will bring in significant earnings from this market as well.

Currently, 83 companies among the 136 members of TCA are working abroad. According to the Engineering News Record (ENR 2005), 14 TCA member companies listed in "top 225 global contractors".

3.2. The Turkish Contractors Association (TCA)

The Turkish Contractors Association (TCA) is an independent, non-profit professional organization based in Ankara. The association was founded in 1952 and represents the leading construction companies in Turkey. The total volume of work undertaken by Turkish Contractors has reached 75 billion US Dollars. The Turkish Contractors Association (TCA) has currently 136 members from Turkey's main contracting companies. 90% of the members of TCA are composed of engineers and architects. These highly qualified professionals are responsible for the realization of 70% of all domestic and 90% of all international contracting work done so far by Turkish construction companies.

From the beginning of the 1970s up to the present, member companies of TCA have completed over 3000 projects in 63 countries. Their business volume abroad has reached approximately 65 Billion US Dollars.

In addition to offering contracting services at international standards both within and outside Turkey, nearly 75% of TCA members are also active in various fields of construction industry investments, manufacturing, engineering and consulting.

Besides the TCA, 75% of its member companies operate with the quality system certificate.

The Turkish Contractors Association (TCA) objectives can be listed as follows:

- To increase the competitiveness of its members in the national and international markets.
- To contribute to the achievement of an economically productive, socially responsible and environmentally sound development in the construction industry.
- To provide counsel to the government agencies on legal, economic and technical issues that are related to the construction industry.
- To build and enhance strategic alliances with public and private bodies both within and outside Turkey.
- To defend and promote the interests of its members.
- To encourage cooperation and mutual support among its members.
- To promote professional standards and business ethics.
- To raise public awareness on industry related issues.

In accordance with the TCA's aim stated above as "To encourage cooperation and mutual support among its members", in this thesis, it is questioned if TCA may have a major role in dissemination of country risk information between its members. As it will be explained in the next chapters, the country risk information that shall be collected using the proposed country RBS may be stored in a database by TCA. However, its effectiveness will be questioned during the interviews.

CHAPTER 4

RESEARCH METHODOLOGY

Risk management is not a new technique but it is surprising that despite its riskier nature than many other industries, construction industry has started using such managerial techniques very recently. To be able to find reasons to this tardiness, it is important to understand the attitudes of contractors, and investigate the measurement techniques they are using to assess country risks considering the nature of construction business. Through the conducted literature survey within this study it is observed that none of the country risk lists developed by the researchers and international risk management consultancy firms is specific to/comprehensively address the construction market. Therefore it is aimed to present a construction specific RBS which will hopefully contribute to risk analysis of contractors. Moreover, it is not a common application of Turkish contractors to use a specific method or disciplined approach to assess the risks of conducting construction business in foreign markets. Therefore it is necessary to investigate contractors' attitudes and conventions on risk assessment in order to evaluate RBS's applicability and to benefit from the broad experiences of company's in order to enhance proposed RBS. For this intent, an interview survey is performed which will reveal the facts of the construction industry on country risk assessment.

4.1. RBS

As Ashley and Bonner mentioned, in risk management each step contributes to the whole, yet the most important activities appear to be the first three: information gathering, risk identification, and impact assessment (Ashley and Bonner 1987). Considering the importance of these stages, a country RBS is prepared to form a systematic list for information gathering and impact assessment.

The RBS is prepared with extensive literature survey to include all possible risks and problems of foreign construction markets. A number of authors have described risks specific to international construction, the ones that are listed in the RBS are presented on the Table 4.1 with the corresponding articles.

Table 4.1. Risk sources mentioned in previous researches

Risk	**Article**
Political continuity / instability	Hastak and Shaked (2000), Jaselskis and Talukhaba (1998), Birgonul and Dikmen (2001)
Attitude toward foreign investors and profit/ foreign firms	Hastak and Shaked (2000), Han and Diekmann (2001), Ashley and Bonner (1987), Fraser and Fraser (2002)
Nationalization/expropriation	Hastak and Shaked (2000), Han and Diekmann (2001)
Bureaucratic delays	Hastak and Shaked (2000), Chua et al (2003), Fraser and Fraser (2002), Birgonul and Dikmen (2001)
Communication and transportation	Hastak and Shaked (2000), Birgonul and Dikmen (2001)
Professional services other than construction	Hastak and Shaked (2000)
Hostilities with neighboring country or region	Hastak and Shaked (2000)
Fractionalization by language, ethnic, and regional groups	Hastak and Shaked (2000)
Mentality, including nationalism, corruption and dishonesty	Hastak and Shaked (2000)

Societal conflicts (e.g. demonstrations, strikes, and street violence) / social unrest	Hastak and Shaked (2000), Ashley and Bonner (1987)
Repatriation of capital / fund	Hastak and Shaked (2000), Chua et al (2003)
Availability of construction technologies / and skills	Hastak and Shaked (2000), Han and Diekmann (2001), Chua et al (2003), Fraser and Fraser (2002)
Availability of equipment and parts	Hastak and Shaked (2000), Jaselskis and Talukhaba (1998)
Availability of construction materials	Hastak and Shaked (2000), Han and Diekmann (2001), Jaselskis and Talukhaba (1998), Fraser and Fraser (2002)
Material cost / fluctuation	Han and Diekmann (2001), Chua et al (2003), Jaselskis and Talukhaba (1998), Fraser and Fraser (2002), Birgonul and Dikmen (2001)
Types of contracts	Hastak and Shaked (2000)
Enforceability of construction contracts/ Contract issues and conditions	Hastak and Shaked (2000), Han and Diekmann (2001), Chan and Tse (2003)
Procedure for bidding	Hastak and Shaked (2000), Chua et al (2003)
Quality / technical capability of local contractors	Hastak and Shaked (2000), Jaselskis and Talukhaba (1998), Birgonul and Dikmen (2001)
Availability of skilled and unskilled workers / labors	Hastak and Shaked (2000), Jaselskis and Talukhaba (1998), Fraser and Fraser (2002)

Labor cost / fluctuation	Hastak and Shaked (2000), Han and Diekmann (2001), Chua et al (2003), Fraser and Fraser (2002)
Labor productivity	Hastak and Shaked (2000), Han and Diekmann (2001), Chua et al (2003), Jaselskis and Talukhaba (1998)
Financing for construction projects	Hastak and Shaked (2000), Han and Diekmann (2001), Jaselskis and Talukhaba (1998)
Shortage of financial resources	Gunhan and Arditi (2005)
Tax/nontax incentives in construction industry	Hastak and Shaked (2000)
Problems in technology transfer and implementation	Hastak and Shaked (2000), Han and Diekmann (2001)
Problems in dispute settlement / conflicts Different dispute resolution mechanisms	Hastak and Shaked (2000), Chan and Tse (2003), Han and Diekmann (2001), Birgonul and Dikmen (2001)
Delay in regulatory approvals	Hastak and Shaked (2000), Chua et al (2003)
Poor quality of materials	Hastak and Shaked (2000), Jaselskis and Talukhaba (1998), Fraser and Fraser (2002), Fraser and Fraser (2002), Birgonul and Dikmen (2001)
Unforeseen adverse ground conditions / Geography condition / Poor soil qualities	Hastak and Shaked (2000), Han and Diekmann (2001), Jaselskis and Talukhaba (1998), Birgonul and Dikmen (2001)

Weather / climate conditions	Hastak and Shaked (2000), Han and Diekmann (2001), Jaselskis and Talukhaba (1998), Birgonul and Dikmen (2001)
Terrorist acts	Hastak and Shaked (2000)
Safety	Hastak and Shaked (2000)
Inflation	Gunhan and Arditi (2005), Han and Diekmann (2001), Hastak and Shaked (2000), Chua et al (2003), Birgonul and Dikmen (2001)
Currency Fluctuations / foreign exchange rates	Gunhan and Arditi (2005), Han and Diekmann (2001), Chua et al (2003), Jaselskis and Talukhaba (1998)
Interest rate increases	Gunhan and Arditi (2005), Han and Diekmann (2001)
Cultural differences / condition	Gunhan and Arditi (2005), Han and Diekmann (2001), Chan and Tse (2003)
Bribery	Gunhan and Arditi (2005), Levitt et al (2004)
Taxation discrimination / taxation	Gunhan and Arditi (2005), Han and Diekmann (2001), Chua et al (2003), Jaselskis and Talukhaba (1998)
Security risks	Gunhan and Arditi (2005), Birgonul and Dikmen (2001)
Legal environment of host country / legislative framework	Gunhan and Arditi (2005), Han and Diekmann (2001), Chan and Tse (2003), Fraser and Fraser (2002)

Environmental issues / regulations	Han and Diekmann (2001), Jaselskis and Talukhaba (1998)
Concern about subcontractors	Han and Diekmann (2001)
Government act and regulations	Han and Diekmann (2001), Jaselskis and Talukhaba (1998)
Communication barriers	Han and Diekmann (2001), Chan and Tse (2003)
Language barrier	Chan and Tse (2003), Chua et al (2003), Levitt et al (2004), Fraser and Fraser (2002), Birgonul and Dikmen (2001)
Clarity of local laws	Chan and Tse (2003)
Interpretation of law	Chan and Tse (2003)
Inadequacy of technical specification	Chan and Tse (2003)
Change in policies	Chua et al (2003)
Political corruption	Chua et al (2003)
Economic crisis	Chua et al (2003)
Currency devaluation	Chua et al (2003)
Restrictions to scope of engineering activities for foreign entrants	Chua et al (2003)
Protectionism / local preference	Chua et al (2003)
Lack of transparency in government procurement policies / bidding procedures	Chua et al (2003)
Complicated construction legislative system and laws	Chua et al (2003)
Lack of standardization in format of contract document	Chua et al (2003)
Types of bidding	Chua et al (2003)
Lack of clarity of contract document	Chua et al (2003)

Lack of legality and standard dispute settlement procedure	Chua et al (2003)
Differences in design specifications	Chua et al (2003)
Differences in construction codes / building codes	Chua et al (2003), Jaselskis and Talukhaba (1998), Birgonul and Dikmen (2001)
Differences in material standards	Chua et al (2003)
Differences in management philosophy	Chua et al (2003)
Nepotism and overvalue of relationship	Chua et al (2003)
Conflicts between the private business interests and the state bureaucracy	Jaselskis and Talukhaba (1998)
Religious conflicts	Jaselskis and Talukhaba (1998), Ashley and Bonner (1987), Birgonul and Dikmen (2001)
Public resistance / non-cooperation of public residents / plain dislike of foreigners	Han and Diekmann (2001), Chan and Tse (2003), Fraser and Fraser (2002)
License and permit requirements	Jaselskis and Talukhaba (1998)
Rules/restrictions on importation of materials, equipment and spare parts, and labor	Jaselskis and Talukhaba (1998), Han and Diekmann (2001), Birgonul and Dikmen (2001)
Terms of financing	Jaselskis and Talukhaba (1998)
Lack of infrastructure	Jaselskis and Talukhaba (1998), Fraser and Fraser (2002), Han and Diekmann (2001), Birgonul and Dikmen (2001)
Quality of labor / technical staff	Jaselskis and Talukhaba (1998), Fraser and Fraser (2002), Birgonul and Dikmen (2001)

Safety rules / practices	Jaselskis and Talukhaba (1998), Levitt et al (2004)
Frequently changing laws	Jaselskis and Talukhaba (1998), Han and Diekmann (2001)
Cost of construction equipment	Jaselskis and Talukhaba (1998)
Fights with local labor unions (in revised RBS)	Levitt et al (2004), Ashley and Bonner (1987)
Racial factors	Ashley and Bonner (1987)
War	Han and Diekmann (2001), Fraser and Fraser (2002)
Government subsidy	Han and Diekmann (2001)
Currency exchange restrictions	Han and Diekmann (2001), Chua et al (2003)
Coup d'etat (coup)	Fraser and Fraser (2002)
Political arrest and expulsions	Fraser and Fraser (2002)
(Confiscation or other forms of) Restricting foreign assets	Fraser and Fraser (2002)
Custom delays	Fraser and Fraser (2002)
Inability and reluctance to communicate	Fraser and Fraser (2002)
Lack or inaccessibility of business support mechanisms	Fraser and Fraser (2002)
Uncertainty about lines of responsibility and decision making procedures	Fraser and Fraser (2002)
Government reluctance or inability to implement favorable policies	Fraser and Fraser (2002)
Unfavorable visa regulations	Fraser and Fraser (2002)
Force Majeure (in revised RBS)	Han and Diekmann (2001)
Immature legal system	Chua et al (2003)
Delay in progress payments	Birgonul and Dikmen (2001)

Lack of coordination and communication with the client organizations	Birgonul and Dikmen (2001)
Lack of data/delay in the necessary project information	Birgonul and Dikmen (2001)
Custom regulations	Birgonul and Dikmen (2001)
Unconformity of imported materials with host country practice	Birgonul and Dikmen (2001)
Unavailability of repair and maintenance services of equipments	Birgonul and Dikmen (2001)
Unavailability of spare parts	Birgonul and Dikmen (2001)
Lack of skilled labor	Birgonul and Dikmen (2001)
Poor communication skills of technical staff	Birgonul and Dikmen (2001)
Frequent change orders of the client	Birgonul and Dikmen (2001)
Difficulty in finding credits	Birgonul and Dikmen (2001)
High insurance premiums	Birgonul and Dikmen (2001)
Problems with local banking system	Birgonul and Dikmen (2001)
Difference in traditions	Birgonul and Dikmen (2001)
Changes in international relations	Birgonul and Dikmen (2001)
Site handover delay	Dikmen and Birgonul (2006)
Strict quality requirements	Dikmen and Birgonul (2006)
Strict health and safety requirements	Dikmen and Birgonul (2006)
Poor international relations	Dikmen and Birgonul (2006)

The risk sources that were mentioned in these researches are scanned, combined, and categorized under six main headings namely; cultural, political, legal, construction market, financial and economic risks. In the proposed RBS the market risk factors that have possibility to be impacted by country conditions are included in order to reflect the country risks specific to construction market. Therefore, it will hopefully contribute to assessment of foreign market construction risks.

Under the six main headings there are thirteen subheadings.

Cultural risks, subdivided into two categories as structure of the country and working culture of the country. First one includes the risks about the general structure of the country such as religion, language or traditions. Second one groups the cultural risks related with the business execution of the country, such as bribery, nepotism or management philosophy.

Political risks are grouped and categorized as government relations, structure of the host country and government policies. Government relations category includes the hostilities, international relations, war and terrorism. Structure of the country is the title for all risks causing political instability in the country. Government policies subheading groups the regulations and attitudes of the government that may badly affect the construction business in the country.

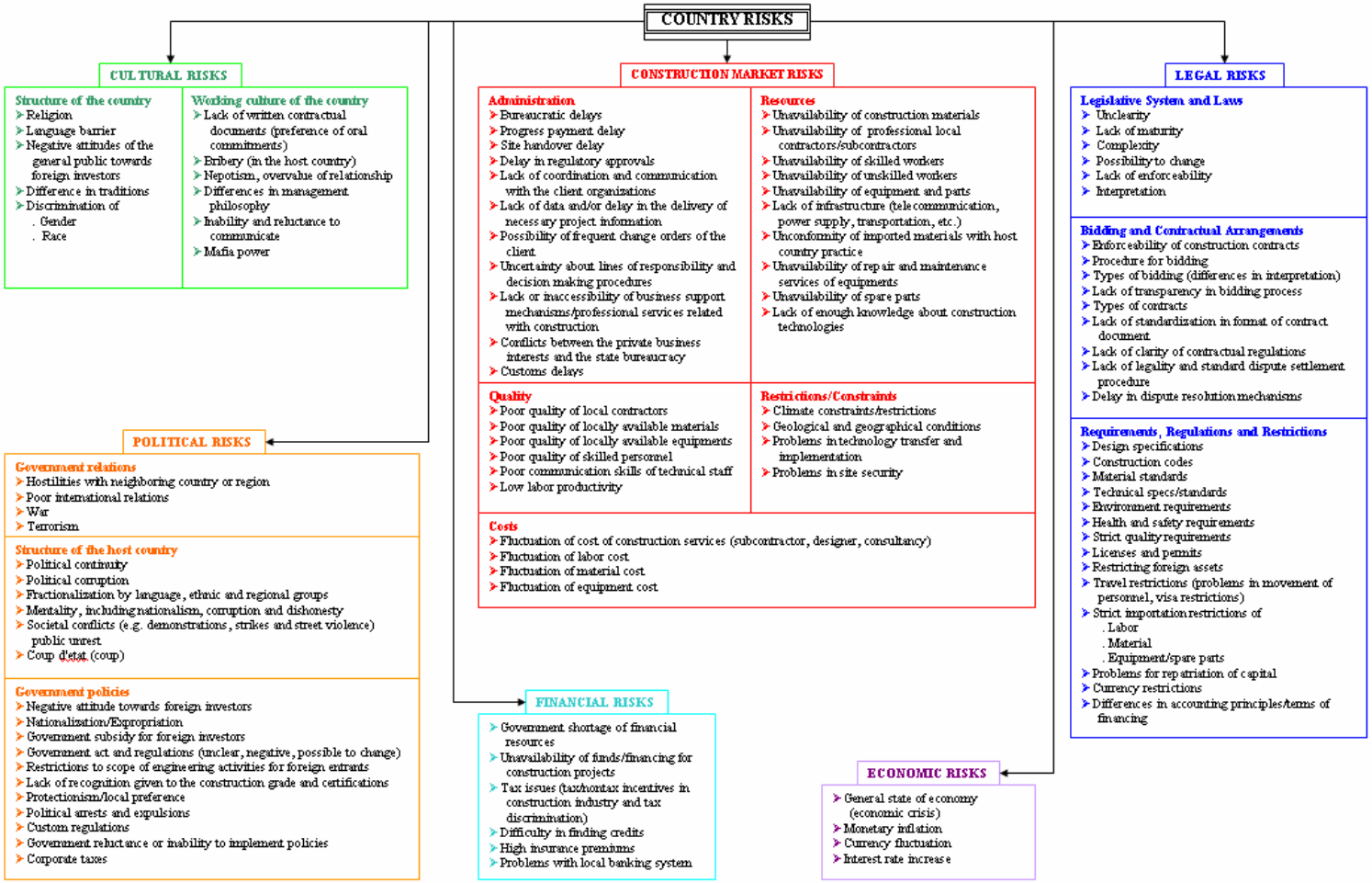
Construction market risks are the main part of the RBS as the objective is to form a construction specific country risks list. 35 market risk factors are divided into 5 categories namely; administration, resources, quality, costs, and restrictions/constraints. Administration risks are related to construction work execution procedures that may be affected by the country conditions. Resources subcategory includes availability of all resources required for construction and quality subheading is for the poor quality risk of the resources. Costs title includes fluctuation risk of the prices of resources. Finally, restrictions/constraints subheading groups the risks related with the nature of the construction business and differ from country to country such as climate or geographical conditions.

Under financial and economic risks only main sources of risks that have possibility to be impacted by country conditions are listed and not further divided.

Legal risks of country related to construction market are grouped under three headings. Legislative system and laws includes the legal framework of the country.

Under the bidding and contractual arrangements, and Requirements, regulations and restrictions headings, legal risks that may be faced while conducting construction in foreign markets are listed.

The country RBS specific to construction market is presented in Figure 4.1 below.


COUNTRY RISKS
CULTURAL RISKS
Structure of the country
Religion
Language barrier
Negative attitudes of the general public towards foreign investors
Difference in traditions
Discrimination of
. Gender
. Race
Working culture of the country
Lack of written contractual documents (preference of oral commitments)
Bribery (in the host country)
Nepotism, overvalue of relationship
Differences in management philosophy
Inability and reluctance to communicate
Mafia power
CONSTRUCTION MARKET RISKS
Administration
Bureaucratic delays
Progress payment delay
Site handover delay
Delay in regulatory approvals
Lack of coordination and communication with the client organizations
Lack of data and/or delay in the delivery of necessary project information
Possibility of frequent change orders of the client
Uncertainty about lines of responsibility and decision making procedures
Lack or inaccessibility of business support mechanisms/professional services related with construction
Conflicts between the private business interests and the state bureaucracy
Customs delays
Resources
Unavailability of construction materials
Unavailability of professional local contractors/subcontractors
Unavailability of skilled workers
Unavailability of unskilled workers
Unavailability of equipment and parts
Lack of infrastructure (telecommunication, power supply, transportation, etc.)
Unconformity of imported materials with host country practice
Unavailability of repair and maintenance services of equipments
Unavailability of spare parts
Lack of enough knowledge about construction technologies
Quality
Poor quality of local contractors
Poor quality of locally available materials
Poor quality of locally available equipments
Poor quality of skilled personnel
Poor communication skills of technical staff
Low labor productivity
Restrictions/Constraints
Climate constraints/restrictions
Geological and geographical conditions
Problems in technology transfer and implementation
Problems in site security
Costs
Fluctuation of cost of construction services (subcontractor, designer, consultancy)
Fluctuation of labor cost
Fluctuation of material cost
Fluctuation of equipment cost
LEGAL RISKS
Legislative System and Laws
Unclearity
Lack of maturity
Complexity
Possibility to change
Lack of enforceability
Interpretation
Bidding and Contractual Arrangements
Enforceability of construction contracts
Procedure for bidding
Types of bidding (differences in interpretation)
Lack of transparency in bidding process
Types of contracts
Lack of standardization in format of contract document
Lack of clarity of contractual regulations
Lack of legality and standard dispute settlement procedure
Delay in dispute resolution mechanisms
Requirements, Regulations and Restrictions
Design specifications
Construction codes
Material standards
Technical specs/standards
Environment requirements
Health and safety requirements
Strict quality requirements
Licenses and permits
Restricting foreign assets
Travel restrictions (problems in movement of personnel, visa restrictions)
Strict importation restrictions of
. Labor
. Material
. Equipment/spare parts
Problems for repatriation of capital
Currency restrictions
Differences in accounting principles/terms of financing
POLITICAL RISKS
Government relations
Hostilities with neighboring country or region
Poor international relations
War
Terrorism
Structure of the host country
Political continuity
Political corruption
Fractionalization by language, ethnic and regional groups
Mentality, including nationalism, corruption and dishonesty
Societal conflicts (e.g. demonstrations, strikes and street violence) public unrest
Coup d'etat (coup)
Government policies
Negative attitude towards foreign investors
Nationalization/Expropriation
Government subsidy for foreign investors
Government act and regulations (unclear, negative, possible to change)
Restrictions to scope of engineering activities for foreign entrants
Lack of recognition given to the construction grade and certifications
Protectionism/local preference
Political arrests and expulsions
Custom regulations
Government reluctance or inability to implement policies
Corporate taxes
FINANCIAL RISKS
Government shortage of financial resources
Unavailability of funds/financing for construction projects
Tax issues (tax/montax incentives in construction industry and tax discrimination)
Difficulty in finding credits
High insurance premiums
Problems with local banking system
ECONOMIC RISKS
General state of economy (economic crisis)
Monetary inflation
Currency fluctuation
Interest rate increase

4.2. Questionnaire Study

The main objective of this research study is to investigate if there is a specific method that Turkish contractors use to assess country risk specific to construction market and then test the reliability of the proposed country RBS specific to construction market. Interview results will verify the adequacy of RBS and evaluate its applicability in risk assessment process of construction companies.

4.2.1. Administration of Interviews

This research consists of a set of questionnaires delivered to construction experts in a face-to-face fashion. Interviews were carried out in the Turkish construction companies with the respondents all at the managerial level. Respondents were construction experts that have been working in foreign markets for several years. Six experienced managers of leading Turkish construction companies' participated in this study. Each interview took about 1 hour. Before the implementation of questionnaires, a brief presentation on the subject was made to the respondents in order to clarify the aim of the research. After the aim of the research has explained, respondents were requested to explain how they assess the risk of a country and how they gather the necessary information. Then they were encouraged to give examples of the risks that they have faced with while doing business in foreign markets. Finally the RBS's reliability was tested by asking whether it is sufficient to assess the country risks specific to construction industry or not. It is expected that the ideas on RBS will provide to find out its weaknesses and to evaluate its applicability on foreign market operations of contractors.

4.2.2. Content of the Interview

The questionnaire was developed in three sections each of which examined in the following paragraphs. A sample of questionnaire is given in Appendix A.

4.2.2.1. General Information about the Company

In section one, respondents were asked to state for how many years they have been in the construction sector, the scope of the company's work, for how many years

they have been working in foreign markets, the countries the company had been working or had worked, the foreign market volume of the company and whether the company is a member of TCA. The main goal of asking company information was to generate a profile of the respondent companies whose ideas will contribute to research. At the end of the first section, experts were asked to list the countries that they have been working or had worked and to name their present position in their company. This final information will make experts' opinions on RBS more reliable.

4.2.2.2. Company's Risk Assessment Experiences and Viewpoint

In the section two of the questionnaire, firstly the companies risk assessment practice was investigated. The respondents were asked to explain how they assess the risk of the market they are deciding to enter, and were asked to describe the country risk assessment methods they utilize if there are any. This information will reveal the fact about the gap between the previously proposed techniques' and the contractors' preferences on decision making based on intuition and personal judgment. Then the managers were asked to list the sources of information about the target country's risk associated with construction market and were asked whether they store this information and utilize for future projects. The storing procedures will present the view of contractors on value of risk experiences for future projects. Then they were asked whether they make another risk evaluation at the end of the project or while going out of a market as post project appraisal.

After the companies have presented their risk assessment practice, experts were allowed to state their experiences on country risks by telling the problems that they faced while conducting construction business in foreign markets. In this context, managers were encouraged to give examples of risks for each category of RBS. Then the respondents are asked to consider the most risky and less risky country they had worked in order to discover the reasons behind this categorization.

Finally, managers were asked to list the major criteria that should be evaluated to assess the country risk associated with construction. Hence the respondents indicated the most important risk factors that should be considered in assessment

and provide a valuable information to renew RBS. In this respect, the experts are asked to evaluate the RBS's adequacy in assessing country risk related with construction and they are allowed to make any suggestions on risk factors that should be included in order to make RBS more comprehensive.

4.2.2.3. Suggestions for RBS Utilization

Identifying the applicable method of RBS utilization is aimed within the third section. Although risk assessment is accepted to be necessary and critical concept for the survival of the companies, a systematic method did not implemented in most firms. In this context, the respondents were asked to express their ideas on application of RBS with the TCA help for collecting the necessary country risk information and storing this information to the advantage of all member companies. If experts indicated that they find the support of TCA applicable than they were asked to state how TCA should gather this risk information for countries and whether they are willing to share their risk experiences with other companies. If experts indicated that they find TCA support impractical then they were asked whether it will be useful for their company to store the risk experiences in different countries according to this RBS. Opinions of experts will be used to decide on the proposed method of RBS application in construction sector.

In the following chapter, findings of the interviews are presented. A general view of country risk assessment methods in Turkish construction companies is revealed through studying survey data. In addition, experts' ideas will be the foundation stone in proving RBS's reliability in country risk assessment of construction companies. Finally, a system for application is proposed based on the survey results of a second interview and a case study relevant to risk assessment based on RBS is performed for an international construction market.

CHAPTER 5

RESEARCH FINDINGS

In this chapter, survey results are presented. Current practices and perceptions of construction companies on country risk assessment will be revealed through studying survey data. Also the RBS's reliability will be tested by the risk experiences of experts in foreign markets. In addition, suggestions for utilization of RBS will guide the way through a proposed method of implementation in a case company which will be discussed in the next chapter.

5.1. General Information about the Companies

The following paragraphs will point out the profiles of the respondent companies by summarizing their history in the Turkish construction sector and by mentioning their expertise areas. Then their experiences in foreign markets will be explained. Respondent profile and corresponding companies are tabulated below.

Table 5.1. Experts involved in the interviews

Respondent	Position in the Company	Company
A	Project coordinator and tender department manager	I
B	Assistant of CEO and Russia representative	I
C	Director of Ireland and CIS countries regional manager and coordinator	II
D	Business development manager	III
E	Foreign construction works head, executive committee member and deputy general manager	IV
F	Foreign construction works manager	IV

Company I was established in 1958 and performed many projects since then. Following the accelerated infrastructural investments in Turkey, the company leads today a holding with more than 15 affiliates and 5000 employees. Company's scope of work is general contracting and it has vast experience in turnkey projects in a wide variety of fields from tunnels to thermal power plants, rail transportation systems, dams, pipelines, water treatment plants, highways, ports, and natural gas. Considering the new opportunities in the sector, Company I has extended its activities from construction to energy, tourism and insurance. It has several partnerships with both domestic and foreign partners and has foreign offices at Romania, Russia, Libya, U.A.E and Germany. The company has broad experiences in international contracting due to its operations in Russia, Iraq, Taiwan, Holland, Germany, U.A.E., Saudi Arabia, and Romania since 1982. Project coordinator and Russia representative of the company contributed to this study by sharing their views.

Company II was established in 1959 as a contracting company and during its 47 years of operations, it has become a reputable international company conducting activities over a wide geographical area, covering the Middle East, Russia, CIS Countries, South East Asia, North Africa and Ireland. The company is specialized in the turnkey construction of industrial facilities, including thermal power plants, refineries, petrochemical plants, hydroelectric power plants, water and wastewater treatment systems, cement factories and pipelines, installation of mechanical/ electrical equipment and instrumentation and the construction of high-rise buildings, business and shopping complexes, residences, tourism facilities, social and cultural facilities, health facilities, dams, underground transportation systems and utilities. In the early 1970s, the company extended its operations beyond Turkey and completed numerous projects in Iran, Iraq, Jordan, the United Arab Emirates, Saudi Arabia, Malaysia, Russia, Turkmenistan, Uzbekistan, Azerbaijan and Libya. The company's director of Ireland and CIS countries regional manager and coordinator has shared his experiences in foreign markets in order to enhance RBS.

Company III was founded in 1967 and it has almost 40 years of experience in the implementation of major civil engineering projects. The company has gained a reputable position in the construction sector by completing wide range of projects of mainly military and industrial nature, and buildings, highways and airbases. In the beginning of the 1980's, it started working overseas by undertaking the construction of several facilities in Libya. Since then, the company conducted construction works in Iraq, Germany, Russia, Kazakhstan, Turkmenistan and Afghanistan. The business development manager of the company explained his experiences gained in these foreign markets.

Company IV established in 1969 and today occupy a special place, particularly in Turkey's mass housing developments due to realization of over 50 000 residences during its life. The company group is comprised of 13 companies, 3 plants, 1 touristic facility, 1 hospital, 2 shopping centers, 1 sport center and 4 partnerships and 4 joint ventures in numerous fields, with a capacity of 3000 employees. Apart from construction, the company also makes investments while expanding and extending the scope of its services; investments in tourism and shopping centers follow those in the health sector. The company's Construction-Investment Group possesses a construction capacity of 500,000 sq. m. per year and in 37 years it has built 40,000 homes with a total area of roughly five million m^2. Scope of work of the construction group is superstructure constructions and the fields can be listed as industry, tourism, insurance, health, shopping centers and mass housing. The company has start foreign contracting in 1981 and has been performing constructions in Libya, Germany, Latvia, Poland, Kazakhstan, Ukraine, U.A.E., Iraq and Russia with a total overseas turnover of 2 Billion USD. To benefit from the company's experiences in foreign markets, interview is conducted with the foreign construction works head and foreign construction works manager of the company.

5.2. Respondent Profile

Respondents of the survey were all managers at different levels with extensive experiences in foreign market constructions. Managers who will contribute to the survey were determined according to their experiences in international construction

markets. Positions of the experts in their company and their experiences on the subject will be presented in order to prove the reliability of the source of information in this survey.

Respondent A is working as project coordinator and tender department manager of Company I. Apart from the countries he conducted business in this company, he had also a past experience on working in Russian market during 92 to 97 as a team member of a company working only in foreign construction markets. Therefore, being general manager assistant of a partnership of leading Turkish construction firms, he had vast experience about the problems of conducting business in a foreign country, during a very unstable period. Moreover, the expert conducted business in Saudi Arabia and Kuwait.

Respondent B is the assistant of CEO of the Company I and also Russia representative of the firm. He was a member of not only the project execution processes but also the decision making procedures as a superior manager. As being a representative of a country that the Company I has activity since 1987, he was experienced in every field of that foreign market.

Respondent C is the director of Ireland and also CIS country's regional manager and coordinator in Company II. He was the person in charge during the process of flotation/formation or planning of the operations in Azerbaijan, Qatar, Bulgaria, and Ireland as the member of the company. Also he has experiences in Kazakhstan, Macedon, Poland, Russia, Tajikistan, Turkmenistan, and Ukraine. As he was the person in charge during the collection of the necessary country risk information and making of the market analysis, he had very valuable information to contribute the RBS. Moreover, Ireland case was unique in Turkish construction sector as the Ireland Company was established without having a project in that country and now has reached a total project volume of 500 million Euros in seven years, concerning construction companies mostly seeks for projects before expanding operations to a particular country. In addition to that, it is also unique case also since there is not much Turkish company functioning in the developed European countries.

Therefore, this expert was experienced in both developing and developed countries and in both preparing, planning and operation stages of construction business.

Respondent D is the business development manager in Company IV. He had experiences as project coordinator and business development manager in Russia, Saudi Arabia, Georgia, Iraq and Africa.

Respondent E is the execution committee member of the Company V. He was also working as the assistant deputy manager and foreign construction works head/chief in the Company. He had experiences in several countries such as Libya, Russia, Kazakhstan, Ukraine and U.A.E.

Respondent F, who is the foreign construction works manager in Company V, had experience in tender preparation of projects mainly in Kazakhstan, Libya and U.A.E. The expert was working in foreign markets since 1980 and he was a member of the company since 1992.

5.3. Company's Risk Assessment Experiences and Viewpoint

The following paragraphs explore how risk assessment practices performed in the companies, methods they adopt to collect and store necessary information and the problems they have faced with in foreign markets. Afterwards, the suggestions on RBS will be discussed to enhance it.

5.3.1. Risk Assessment Methods and Information Sources

The entire sample surveyed indicated that respondent companies did not make use of any analytical technique or systematic method in risk assessment. This demonstrates that Turkish contractors prefer to evaluate the magnitude of country risks on their projects based on their experiences, intuition and judgment. In most companies, necessary risk information is collected according to checklists or priority lists but the output is generally in a report form only. After this procedure, reports are submitted to superiors for necessary measures. Following decisions are also depend on the experiences and intuition. Moreover, another outcome of the

survey is the fact that post project appraisal on country risk evaluation is not a prevalent practice in Turkish construction sector. As a result, the risk information gained during the projects mainly stays as personal experiences of project managers and lost for the company because of the lack in storing and updating procedures.

Respondent A stated that construction companies mostly seek for projects. Therefore, they generally do not have an aim to expand to a specific country; rather they receive project proposals in a country that make them to decide whether to participate or not by evaluating the risks and opportunities. Therefore, they collect the necessary information about the market and risks of that country, prepare reports and evaluate them. But this evaluation depends on the personal experiences of the managers inferring not any specific risk assessment method is utilized in the company. The expert indicated that there are several sources to collect information about the country and listed them as follows: Firstly, they utilize the published manuals or reports, which contain general information about the country and the regulations as labor and tax, such as the reports of INTES. But he signified that, in order to be useful these booklets should be up to date as the country conditions change frequently, however they are generally outdated. Secondly, they try to work with project managers that have worked in that country or tried to have an interview with such experienced managers in order to benefit from their experiences and to gather the necessary information on market conditions. Thirdly, they corporate with local firms especially in local biddings that are not international, or establish agencies in that country to better learn the local conditions. Finally, they make use of the information gathered from the consulates.

About the storage of the information, it is denoted by the Expert A that these reports are stored in project files, shared between the related project personnel and updated when a specific event occurred in that country. Also this filed information is used for future projects and interested employees or project team can view this information for ongoing or future projects. In this context, although necessary updates will be done in the company during the project, post project appraisal is not performed after completion of the project. Respondent notes that, as construction

companies works in project basis, they do not spend much time to evaluate the project after completion, rather they prefer to make another evaluation before the start of a new project. Therefore, as stated, the valuable experience gained during the projects mainly stays as personal experiences of project managers, other than the procedures learned by the departments concerned such as tax issues, labor and money transfers or pricing tactics. That is because all local business is executed by project and site managers, and they may prefer to keep this experience to themselves as the company do not have a systematic approach to collect. As a result this essential information may be lost, if the company needs to terminate project managers' employments when there is no following projects to charge them.

Respondent B, explained that the company makes risk evaluations constantly, but there are not specific methods. Moreover, he indicated that the result of the evaluations is not in a form like matrices, rather the impacts of the risk are evaluated during the regular meetings of the company by sharing ideas and discussions. In order to list the sources of information the expert stated that, most frequently utilized source is the internet, in which he prefers the sites that provides the indicators of the country such as the inflation or government's deficit, for economic risk evaluation. Other than this economic information, the company takes advantage of the experiences of other firms working in the same country. In addition to that, the employees' knowledge who previously worked in the same region is evaluated to predict the country conditions. Following this stage, the collected information is evaluated and reported to provide the storage, and the information is updated during the project. The respondent asserted that they made a post project appraisal, but when he explained the procedures in detail, it is understood that the accuracy of the predicted risk factors checked during the periodic meetings of the company, but especially when there is a need for a new proposal in the same country.

Respondent C, who has vast experiences in foreign market ex-ante evaluations /pre-assessments and in formation of operations in foreign countries, explained that their company has predefined procedures under the regulations of ISO 9001, for

collecting the risks and other necessary information of countries, especially in tender preparation stage. Like the other companies, the risk assessment is made without an application of a specific method. Expert summarized the risk evaluation procedure as the collection of necessary country information, evaluation and verification of them, and reporting and submission to superiors. After the reports are submitted, it is stated that the managers decide whether to terminate the operations or demand a second more detailed investigation and evaluation to continue.

Variety of information sources is utilized by the Respondent C to collect country information and he listed the most important ones as, the consulting firms such as PWHC (PricewaterhouseCoopers) or KPMG, investor firms, construction companies in that country, internet sources, civil servants of the country, chambers of commerce, Turkish consulate of the country, target country's consulate in Turkey and other Turkish construction companies working at that country. In the context of information sources, the expert underlined the fact that the information gathered should be verified before used in any evaluation. In order to provide that, it is suggested to use the data of more than one consulting firm to double-check, and making interviews in an organization with the respondents in different positions. On the subject of making risk evaluation at the end of the projects, responded signified the difference between conducting business in project basis and expanding business into a foreign market according to a future plan. The companies seeking for projects only, will make a post project appraisal to evaluate the project success but the latter ones will take a project only a small part of the whole plan. Therefore, it may be concluded that updates about the country conditions will be made during the period the operation of the company continues in that region.

Respondent D stated that the company display activity in foreign markets when there is a project proposal. Therefore, before collecting country risk information they prefer to investigate the employer since the most important risk for the expert is the possibility of not getting the payment of the performed job. Hence, like the other companies, they do not utilize a specific risk assessment method for evaluating country risks. In need of collecting country information, they refer to

internet sources, utilize consulting firm reports, and make an investigation in the target country with the local subcontractors, architects, engineers and the community. When the updating procedures asked, the respondent explained for a country that their firm has consequent projects they updated the country information continually during the projects. Therefore, updating is an activity of project basis and what the company understands from post project appraisal is the evaluation of project success and the control of the correctness of the tender pricing made concerning the risks. The Business Development Manager, gave an example that when a high security problem occur in Kabul during the project, they increase the security cost for the new project if the budget for security precautions were not enough in the completed project in the same country. Finally, expert noted that the all of the gained knowledge is filled, stored in technical server and shared when needed.

Respondent E of Company V explained that the firm has several criteria on market research that they evaluate the market conditions, investor's reliability, country risks and functioning of the systems in the country as a whole. As a part of this investigation they collect information on country risks such as political and economic risks. The risk assessment is made without a method like the common application of contractors by filling out the checklist of the company and preparing a report. Then this report or executive summary is evaluated by the superiors in order to take necessary actions. The information sources are listed as TCA, Undersecretariat of Foreign Trade, Foreign Economic Relations Board, Ministry of Foreign Affairs, Export Promotion Center (EPC), internet sources such as Central Intelligence Agency (CIA) world fact book, consulates at the country, businessman associations, counsels of trade, contractor associations of the target country, Union of Chambers and investor firms. In the company, country related information are stored in the database and categorized for future needs. On the other hand, the stored information is updated during the operation rather than making a post project appraisal.

Respondent F indicated, like the other companies, they do not utilize any risk assessment method or make risk rating calculations, but collect the country information and evaluate them. For this purpose, information from the Ministry of Foreign Affairs, employer or intermediary institutions, owner of the proposal, governmental agencies of the country as source of legal rules and other regulations, consulates, export promotion centers and other Turkish firms working in the country are scanned. The expert added that he also observes the construction sites of that country to evaluate labor issues and productivity; especially when local labor employment is imposed by the government. Also he noted that they utilize the internet sources, but this information should be more carefully investigated and checked in order to prove its reliability and up to datedness to reach recent laws and regulations. Following the research, the information is utilized as the input for the analysis program of the company and finally a risk factor is added by superior managers concerning the risk information. Then the analyze team stores some of the information in report and some in computer based form. On updating the country risks with a post project appraisal, the respondent explained that if the contract is not obtained by the company, the country information is recorded in achieves. If the project starts, it is indicated that changing country conditions are experienced by the project managers but mostly stay as personal experiences of them. It is noted that the new information is also shared between the company employees and some tangible results are reported; but most of them can not be recorded as the company has no systematic updating procedure.

5.3.2. Country Risk Experiences on Construction Market

The aim of collecting risk experiences of the managers is to benefit from them in the RBS revision. The survey results on country risk experiences indicated that almost all of the problem sources of construction in foreign countries are included in the RBS. Likewise, the most risky and least risky country differentiation criteria of the experts are revealed that the important risk factors that make a country very risky are also present in the content of the RBS. This demonstrates that the proposed risk list is comprehensive to assess country risks related with construction.

Respondent A listed problems for each category of the RBS by giving examples especially from the Russian construction market during the period of 92 to 97. For the cultural risks, the expert explained that the company had language problems as English speaking employees in the country were hardly found during that period. In addition, he indicated that in that region there was very different and colorful social life causing adaptation problems of employees. Also mafia power was stated as one of the important risk factor. Change of regime was the example of the political risks. That was the reason why institutional laws and regulations were not mature and clear and that caused problems in every stage of business. As an economic risk the expert stated that the economic crisis occurred in 1998 was the realization of one of the most important economic risk in business. Examples to financial problems noted as the banking system problems of the country and the advance payments made without performance bond. For the construction market risks respondent explained the problems in Russia in mid-1990s. It is stated that in that period, availability of the construction materials was one of the biggest problems. Every material was imported from Turkey from food to nail, only sand for construction was locally found. Workmanship was another problem that 80 to 90% of workers had to be allocated from Turkey. Expert added that workmanship is still a problem for the areas such as Dubai and Saudi Arabia as there is difficulty in finding Turkish personnel to send that area because of the tough social life in the region. Revision needs for outdated projects of Russia, which are designed according to standard precast elements that are locally found, is stated as another problem. Climate constrains in the Siberia region causing strict working schedules allowing outside works only through May to October was another problem to be adopted that building constructions should be closed and heated with added costs to project budgets. For the construction market problems, last example was the security problems because of the mafia power and the higher salary amounts of the workers than the local earnings resulting in extortion and attacks. Finally, legal problems are listed as the difference in specifications of Russia and problems in movement of personnel such as visa regulations. The expert explained that visa procedures for the employees may take 4-5 months in Dubai and Saudi Arabia and

also government approves it according to quotas in project basis which is a regulation to limit the foreign workers.

When Respondent A asked to name the most and least risky countries he had worked, Russia was listed as the most risky country during the period from 92 to 97. He expressed that the Turkish contractors do not generally work in less risky countries, they rather prefer to perform construction in risky countries that developed countries' leading firms are not active; therefore he did not give an example of the least risky country.

According to Respondent B in the regions that the company is active there is not much problem about the availability of materials however the fluctuations of material costs is an important risk factor. He also explained that working with foreign labor is a problem source in every country such that, it results whether in extensive delays or high expenses for the companies. This was illustrated by stating in Poland, the company hardly obtains permissions even for their engineers. The expert also denoted that change in laws is another problem that they have faced, but it is stated that in every country such changes may occur. As an example, he noted that the new social security law in Turkey will have extra charges for the contractors. Finally, the respondent emphasized the financial source's reliability as a risk factor in foreign markets and explained that the company does not undertake a project in a new market funded by an unknown financial source. On the risky and least risky countries question, the expert stated that he believes there is no country that does not involves risk. Afterwards, he named Poland as the most risky country that they are active by considering the fact that most of the financial source is unreliable, there are problems in the administrations' ability of conducting business, and there is negative attitude towards foreign contractors. As a less risky market, responded stated Russian market, but this evaluation is not because the country involves less risk, rather is a result of the company's experiences in the region making most of the risks predictable for them.

Respondent C firstly specified that every country's risk evaluation is different such as differences in the risks of setting up a company in a European country and a CIS country. Then the risks of the foreign countries are listed as, industrial relations, political risks like stability and continuity, security, economic welfare, unionization, distance, working culture, and administrations' skills of conducting business. He explained that if administrations do not have enough knowledge or practice even to deal with performance bonds, there will be many problems during the business in that country. After the risk examples listed, respondent is asked to name the most and least risky country that he had worked. Expert responded that, there is not a country that does not involve risk; therefore he could not name a country as not risky or less risky, but restated that there are differences only in risks. Furthermore, respondent explained the criteria what makes a country very risky. He signified that if a country has problems such as political stability or vacuum of power and if the country is not reliable it makes the country more risky than many other countries. Therefore, in current situation Iraq and Nigeria may be listed as the most risky country examples. In addition to that, expert stated that if the country does not possess the mentality that international market needs, it makes the country very risky. That is because in every business you may be faced with problems but there should be appropriate regulations to allow you to seek remedy.

Respondent D stated that the risks such as cultural risks do not have much effect on construction projects as he believes they do not have impact on total costs. The only example as a cultural problem was the Turkish employees' adaptation problems in the host country. The expert also indicated political risks do not affect the construction works if the laws and regulations are not changed, even after revolution contractors can continue constructions. Therefore, mainly construction risks related with the local market were listed as risk sources. These may be summarized as the unavailability or costs of materials, poor labor productivity, custom problems, transportation and access roads. Afterwards, as an example of more risky countries, Respondent D listed Iraq and Afghanistan. The expert explained if the laws and regulations are mature and unlikely to change, the country

will be less risky. This is the reason behind the risk categorization of the countries and European countries such as Germany was illustrated as in this category.

First example that Respondent E stated was the political risks, like the political chaos, revolution and accordingly the security problems in Iraq. Expert explained that there exist various problems in the countries that achieve their independence recently, especially the problems such as the civil commotion. Then he indicated that legal and economic problems are the other examples of the important risks. In addition, expert explained that break off relations after Turkish prime minister's meeting in Libya in 1996 was illustrated the importance of government relations. Because, Libya was the first foreign market experience of many Turkish contractors since 1975; but the tension in relations as a result of that meeting in Libya caused a decrease in the volume of works of Turkish contractors in that country. The Libya's share in the foreign market activities of Turkish contractors decreased from 55% to 11%. Another example of the expert was the Gulf War related problems in Iraq. Moreover, the company experienced a language problem in Algeria; as the language of the country was French and Arabic whereas company employees' mainly communicate in English, the branch office in that country was closed after one and a half years of operation. On the most and less risky country consideration, respondent stated that countries with political and economic stability, and with proper legislative system such as Germany are less risky, countries with political chaos and war such as Iraq are more risky.

According to Respondent F the most important risk is the country's working conditions. It is explained that getting the work permits for foreign labor cause lots of problems in construction works. Then, custom related problems like equipment transfer delays were stated as the second important issue. That followed by the problems in transferring the payments from the host country which results in delay in material supply and salary payments. Other than that, expert denoted that they have faced problems such as strict regulations about movement of personnel, the local work force imposition in construction works and poor productivity of local labor. All of the mentioned risks were related to construction market rather than

macro level risks such as political or cultural factors, which indicate that the expert believes market level risks have higher impact on the construction business.

5.3.3. Risk Factors to be Evaluated and RBS

The entire sample surveyed stated that RBS is adequate to assess country risks specific to construction markets. Therefore the reliability of the RBS has been tested by the opinions of the managers who are experienced in foreign markets. Some additions to RBS were made to enhance it in a way that it includes every possible risk factor related with the foreign construction markets. Moreover, the risk evaluation criteria that respondents have mentioned proved the importance of the risk items that are included in the RBS.

Respondent A listed the criteria that should be evaluated to assess the country risk as tax legislations, labor issues, charter in the country, banking system, repatriation of capital, bonds, availability of materials, local market situation and importation needs and having appropriate conditions for international bidding or not. After the respondent listed his criteria, RBS is presented in order to learn the expert's idea on its applicability. He expressed that RBS will be very useful in country risk evaluations especially for new market assessments. After the expert examined the RBS, in a second meeting, it is indicated that some risk items in the RBS are more important, some may be disregarded in the risk assessment; but as whole risk information based on RBS will be a complete evaluation of the country risk associated with construction. The most important category is found to be the legislative system and laws of the country. As an addition to RBS respondent stated that the other Turkish contractors' presence in the target country is a risk for new entrants because generally they cut the prices, even offer prices that will lead to a loss, causing difficulties in obtaining the contract. However, as the RBS is a generic list that aims for the benefit of all countries' contractors, this item was not added to list. Expert also indicated, the community generally do not have a negative attitude towards foreign investors as the investments in their country is for their benefits, whereas they may have negative attitudes towards foreign contractors as the opportunities of employment decline for the locals by the foreign labor

employment. Therefore, by considering that the suggested change will make the risk item more clear, “The negative attitudes towards foreign investors” item under the Structure of Country risks was corrected as “towards contractors”.

Respondent B listed the risk evaluation criteria according to his priorities. First issue was the legislative system and laws, as the expert implied that the construction works to be performed are same for all countries but the system you conduct the business in is different and requires a detailed analysis. The second was the economic risks as the main pecuniary losses occur because of the economic problems. Third one was the workmanship. Expert indicated that in a new market that the company does not have enough knowledge and experience, it is not wise to work with the local labor. Therefore he prefers to work with Turkish labors to eliminate the communication problem between the engineers of the company and the labor, and to not to faced with poor productivity and quality problems. But if the government has some restrictions on foreign labor, the market should be better investigated. Then the forth issue was the cultural problems. The importance of having easy access to English speaking labor and clients are expressed. The expert added that they also checked the construction materials availability but what is more important than that is the fluctuation of material costs. The respondent explained that they analyze the past data of changes in material prices. However, the unpredictability of some fluctuations just by observing the past data was demonstrated by the sudden increase in the iron prices occurred lately. At the end, RBS applicability was evaluated by the expert. He indicated that it will be useful to have all these indicators evaluated but it is noted that, the risk outputs should be ranked according to priorities as in his decisions he would like to consider the ones with the higher importance weights first. As an addition respondent indicated that he believes the market saturation is a country risk factor that should be considered for foreign market entry decisions. Therefore, he stated that the saturation of the construction market to contractors or investors is regularly checked. Although this factor may cause problems, as it is not a probabilistic condition such as a risk, it was not added to RBS. Therefore, market saturation was regarded as a predictable factor that may be controlled before market entry decisions considering opportunities and

threats. The major assumption in the proposed RBS is that “the risk of not getting the job” and related factors such as market demand, low level of national competitiveness etc. shall not be considered among the country risk factors. Contractors may consider them while assessing the attractiveness of a country among the opportunity or threat factors rather than risk factors.

According to Respondent C, the first criterion that should be evaluated was the financial risks to evaluate required allocation of budget to survive in that country with the undertaken risks. The second one was stated as the human factor in the business to decide whether to work with local or Turkish employees. Since both have their own risks, the local labor availability and the work permits for foreign workers should be investigated. The expert stated that the decision-maker’s ability to adequately evaluate the market conditions is also a risk factor for the companies. Then the respondent added that the aforementioned risks of doing business presented in the preceding part should also be evaluated for country risk assessment. On the adequacy of RBS in country risk assessment, the respondent expressed that RBS may be utilized as a template in the company such that the country information is collected based on it and evaluated by utilizing it. It is added that the company has a similar template for evaluation but RBS is more comprehensive and detailed. Finally, the expert contributed to RBS by adding some risk factors that should be included. In this context, Industrial Relations risk was added to RBS under the Resources heading of Construction Market Risks with two subheadings; namely Power of Trade Unions and Local Labor Relations. Because power of trade unions was considered as an important factor that may have severe affects on the execution of business. Likewise Force Majeure risk was added under the Requirements, Regulations and Restrictions heading of Legal Risks. That was because the manageability of this uncontrollable factor after realization is differ from country to country and should be considered as a risk. Finally, Cultural Corruption and Deflation risks were added by the respondent and placed under the Structure of the Country and Economic risks respectively.

Respondent D stated that country risks affect the total cost of the project. In order to predict possible cost increases; country conditions such as the legislative system and laws, tax and insurance regulations, investor's reliability or source of financing, security conditions, transportation and access roads, custom problems; and local construction market characteristics such as the availability or cost of materials, workmanship and labor cost are investigated and evaluated as risk factors. Afterwards, the expert denoted that the RBS is a detailed list that can be utilized in risk assessment.

Respondent E indicated that for country risk assessment, they evaluate first the political and economical risks. Then the legislative system is investigated in detail to observe if the system works properly and protects the rights of foreign companies. Then the country's construction market is evaluated. In addition, expert stated that he considers the bidding procedures and types of biddings, whether the client is private sector or public body, whether the investments are realized by the country's own resources or international organizations such as World Bank, and the financial resources. Those factors are rather project-specific which shall be considered in addition to country risk factors. In the end, respondent expressed that RBS will be beneficial and appropriate in country risk assessments related with construction. It is found to be comprehensive and no new items were added by the expert.

It was observed that investor institution or person was a major concern of the experts in project risk evaluation as most of them evaluate the investor's reliability on future payments. However, as this item is a project specific risk rather than a country specific risk it is not added to RBS.

According to Respondent F, the country's working conditions; such as the regulations about movement of personnel, the local work force imposition in construction works and the productivity of local labor are the first issues to be evaluated in country risk assessments. Then the repatriation of progress payments, traveling restrictions, importation problems of the equipments and the costs of

transportation, overhead expenses, custom regulations causing delays and extra costs, and the availability of materials should be investigated. After the expert listed his criteria on country risk evaluation, RBS was observed and it was expressed that RBS is adequate and even more detailed than needed. The RBS was left for detailed observation, and the expert's feedback indicated that the RBS includes all possible risks that should be evaluated. Therefore, respondent did not make an addition to content of the RBS. When the RBS was reviewed by considering the expert's criteria and risk experiences, all of the items were observed as included in the RBS.

5.4. Suggestions for RBS Utilization

As previously mentioned, the experts are asked to express their ideas on RBS utilization and decide whether TCA management on a RBS based database will be applicable. Most of the respondents found TCA's operative effect on RBS database inapplicable concerning the contractors' tendency to keep their knowledge and experiences to themselves for preventing their rivals benefit. Some believe TCA may undertake a mission of eliminating the competitive element as it is an impartial association; however they also have some doubts on the contractors' willingness to contribute. In addition all of the experts have lack of confidence to other company's risk evaluations as they believe no other person's risk attitude will be the same as their own attitude or as there will always be differences in company views.

Respondent A was one of the experts who believe TCA may form a country based database. He specified that inclusion of an organization like TCA is important to ensure the reliability of RBS for the contractors. The RBS may be presented as the finding of an academic research and contractors may be asked to add to RBS or evaluate the countries based on the RBS by their experiences. About the operation of TCA operated system, the expert suggested collecting the risk information of one country from several experienced companies in order to collate reliable data. In addition to that factual risk experiences may be requested from the firms. Responded added that RBS database will be more useful if the risks with the high importance weights of the related country are highlighted. The information

collection method is suggested as the inquiries send to TCA member companies. For updating process the consulates are indicated as an information source since all of the information on country based problems stored by them. On the output of the database issue, expert preferred both a well indexed report and a total country risk percentage value to visualize the whole picture with an opportunity to observe the headings that high risks are concentrated under.

Respondent B also indicated that TCA may work as the editor of a country risk database. He emphasized, in order to make RBS applicable, first TCA must believe its importance and then should provide the contractors' regard. Like the respondent A, he suggested the contribution of numerous companies but it is denoted that the applicability of database may take considerable time. Expert implies that the key point in reliability is permanency. Therefore, the information should be updated regularly. Although the expert believes the appropriateness of TCA contribution, he listed the role of TCA as making the evaluation criteria clear and eliminating the competitive element in information source. For the latter issue, he explained the evaluation of other companies never be enough for his entering decision for a new market. The information given by rivals is insufficient most of the time and also differences in risk attitudes or evaluation criteria cause reduce in the value of the data. Finally, the expert indicated that if the ideal conditions can be provided for the database, it will be very attractive to have custom base outputs. For example, if the company has an opportunity to choose the risk items that they consider more important, a country risk analysis result based on these items may be very beneficial.

Respondent C emphasized that some information is private, confidential and commercially sensitive for companies. Therefore, he believes that TCA's operative activity in country risk database formation is not feasible. In the same context, the expert indicated the information obtained from other companies may be incomplete or fallacious. Also he added that, same as the former experts have mentioned, the evaluation criterion of other company's is another issue of concern. Respondent explained that the evaluations he made should be in accordance with his company's

principles hence no other company's evaluation is reliable for his decisions. When the applicability of RBS on country risk assessment procedures in their company asked, manager stated, it may be useful as a template of evaluation. But he accentuated it will be applicable if only firms adapt this RBS to their company structure.

Respondent D believed that the information required for the country risk assessment based on the RBS is a general knowledge that can be found within the country reports or internet sources. Therefore, the expert stated that companies may share their knowledge but they may not spend time and effort for this database preparation. As a result, rather than a TCA managed database, an in-company application is chosen as the proposed application.

Respondent E explained that, TCA sends inquiries to its members on similar occupational issues but most of the time 50-60% of the interviewee companies do not respond. The prevalent excuse was that the information is private and confidential for their companies. Even the content of the inquiry will be limited to general country information to overcome this factor, every company will need to spend time and money to investigate, collect and evaluate the information. Thus, Turkish construction companies are not willing to allocate their resources to such study. Another difficulty in this system will be the need for continuous updates. If the company does not have ongoing projects in the country, the updating process of country information will again require a considerable time. Therefore, the TCA mission in this database formation is found to be not applicable. Whereas, RBS based country risk assessment application in the company organization expressed as beneficial.

Respondent F indicated that the TCA's operative activity will depend on the content of the inquiry. If the information required will be only the general state of the country, contractors may be willing to cooperate. However, detailed knowledge of risk experience will be found confidential by the Turkish construction companies. Moreover, every company will desire to make their own analysis considering their

company conditions. So, the respondent concluded that the company specific applications of RBS will be more appropriate.

Through survey data the need for a construction specific country risk assessment tool was revealed. Also, RBS's reliability is tested and it was evaluated as comprehensive and sufficiently detailed for construction companies' country risk assessment. In the light of the suggestions of experts RBS is revised. The revised form of the RBS can be found in the Appendix B. Moreover, the interview survey results indicated that TCA operated system is inapplicable for Turkish construction companies. Therefore a case study is conducted to propose a company-specific system for the implementation of RBS and a country risk assessment evaluation is made for risks associated with doing construction business in an international market.

CHAPTER 6

CASE STUDY

Major shortcomings of the prevalent risk assessment practice of the Turkish construction companies observed as the lack of systematic method of country risk assessment, and the loss of valuable experience gained during project execution due to lack of systematic collection and updating procedures. To overcome these, a RBS based risk assessment method and a company-specific database system is proposed in the light of the case study results.

6.1. RBS based Company-Specific Database

To propose a method to adapt the risk assessment based on the RBS to an international construction company, a second interview is conducted with the Responded C. The expert is selected because during the first interview he indicated that the RBS's applicability depends on it's adaptation to the company structure. To realize the adaptation of the system to Company II, a model illustrating the company-specific database system and a questionnaire is prepared. When the aim of the interview explained to the responded, he explained that the company already has some regulations for collecting the necessary country information during tender preparation stage. Also, the expert stated that as a part of ISO procedures RBS based risk assessment database system may be better utilized because it will provide to set the standard application procedures. Therefore the company-specific database system interview is conducted with another company member, Respondent G who is the secretary general and quality assurance manager of the Company II and has broad knowledge about the company structure and quality procedures.

Appendix C shows the questionnaire and example database model that are used during the interview in the Company II.

The proposed database will store the risk information and rating of each country based on the RBS, and the regular updating will be performed to have up-to-date risk information for each country. The database system and information flow in the company will be determined in the light of the interview results.

Before the implementation of questionnaires, the main objective of the thesis explained to the Respondent G. Then the example database model presented and the aim of proposing a company-specific database system for the implementation of RBS was explained. After the aim of the interview has explained, respondent firstly asked to name the departments that may be responsible for the collection of the information, preparation of the database, risk rating based on RBS and updating procedures. The respondent explained that in the company, collection and evaluation of the country information is performed by two departments, Tender and Business Development Department and Financial and Administrative Department. He stated that the legal and financial conditions are investigated by the Financial and Administrative Department and the technical conditions such as the workmanship, available materials, or climate constraints are investigated by the Tender and Business Development Department. Then the potential information sources for the database were asked. The expert explained that as the company seeks for the investment projects, the first information is collected from the investor firms which are the company's potential clients. Second information source has been stated as local consultants of the country such as law offices or subcontractors. As the final source, consulates have been mentioned. About the kind of the information that should be used in the country risk evaluation, respondent expressed that they try to collect all available numerical values such as inflation rate. However, as some risk sources do not have numerical indicators, they are evaluated as potential problems and possibility of finding solutions to each one is considered in the first evaluation.

In the proposed method, two outputs will be obtained from the database; both a report and a risk rating based on the RBS. Therefore, after the information collection, risk rating should be carried out by the responsible departments. For the

rating, two alternatives are proposed; first one is risk rating with a single 1-5 scale value and the other is assessing the risks by multiplying importance weight values with impacts of the risk items. In the second one, importance weight implies the probability of occurrence of the risk and impact implies the magnitude of the effect of the risk to the company when it occurs. When the respondent is asked to choose between two alternative methods, he denoted that risk rating with importance weight*impact will be more accurate as the impacts specific to their company can be considered. Also he added that, although the company does not have a systematic method for rating of all country risks, they have been using probability*impact values in their occupational safety evaluations. Therefore, the method found to be easily applicable and it is stated that all risk items can be rated by this method.

An important feature of the proposed system is the updating procedure to prevent loss of valuable risk experiences of the project team. Hence, the need for updating is emphasized and the expert asked to describe the updating procedure by setting the time intervals. He stated that as the company works in foreign markets on project base, the updating is also performed in project base. It is explained that the updating is continually performed for ongoing projects because the company conduct their business in the host country conditions. It is stated that the risk information updates also made when an important event or change occurs in the country but a post project appraisal is not suggested by the expert. The reason behind is expressed as the information will be up-to-date till the completion of the project and there will be no need for post project updating. Only if there will be a new project in the same country considerable time after the completion of the last project, a new updating should be performed. Then it is noted that the updating procedures will be performed by the employees who are responsible from the project, such as the project engineers and managers.

Then the possible ways of access to the database is asked and the expert stated that this information is not regarded as private in the company. However, as the all

controls made by the head office, the database should allow access of head managers as well as the project executers.

Furthermore, the information flow regarding the database is asked to the expert. He explained that the output shall be submitted to project executive team, financial and administrative affairs department and head office managers. Then, this risk information can be used for developing a risk response strategy and determination of contingency amount at the tender preparation stage. In the light of the interview results, a new model for the database system is prepared and presented in Figure 6.1.

As a shortcoming of the system, the subjectivity of the risk rating is considered. Therefore the expert requested to suggest a method for making this assessment procedure more reliable and objective. He indicated that in the company, after the pre-assessment made by the tender and business development department members a further check is made by different employees namely project managers, therefore verification of the information is made. Consequently, taking average of numerous experts' risk assessment is suggested in order to overcome subjectivity.

Finally, the respondent requested to determine the factors that may negatively affect the operation of the method and the factors that may provide a better operation. As a bottleneck, the expert denoted the subjectivity of the risk assessments. Critical success factor is explained as collecting accurate information from proper sources. Since the company will make project policies based on this information, the accuracy of it should be maintained by detailed investigation and diversity of sources. For better operation of the system, necessary country information should be collected from various sources, collated and compared in order to obtain reliable results.

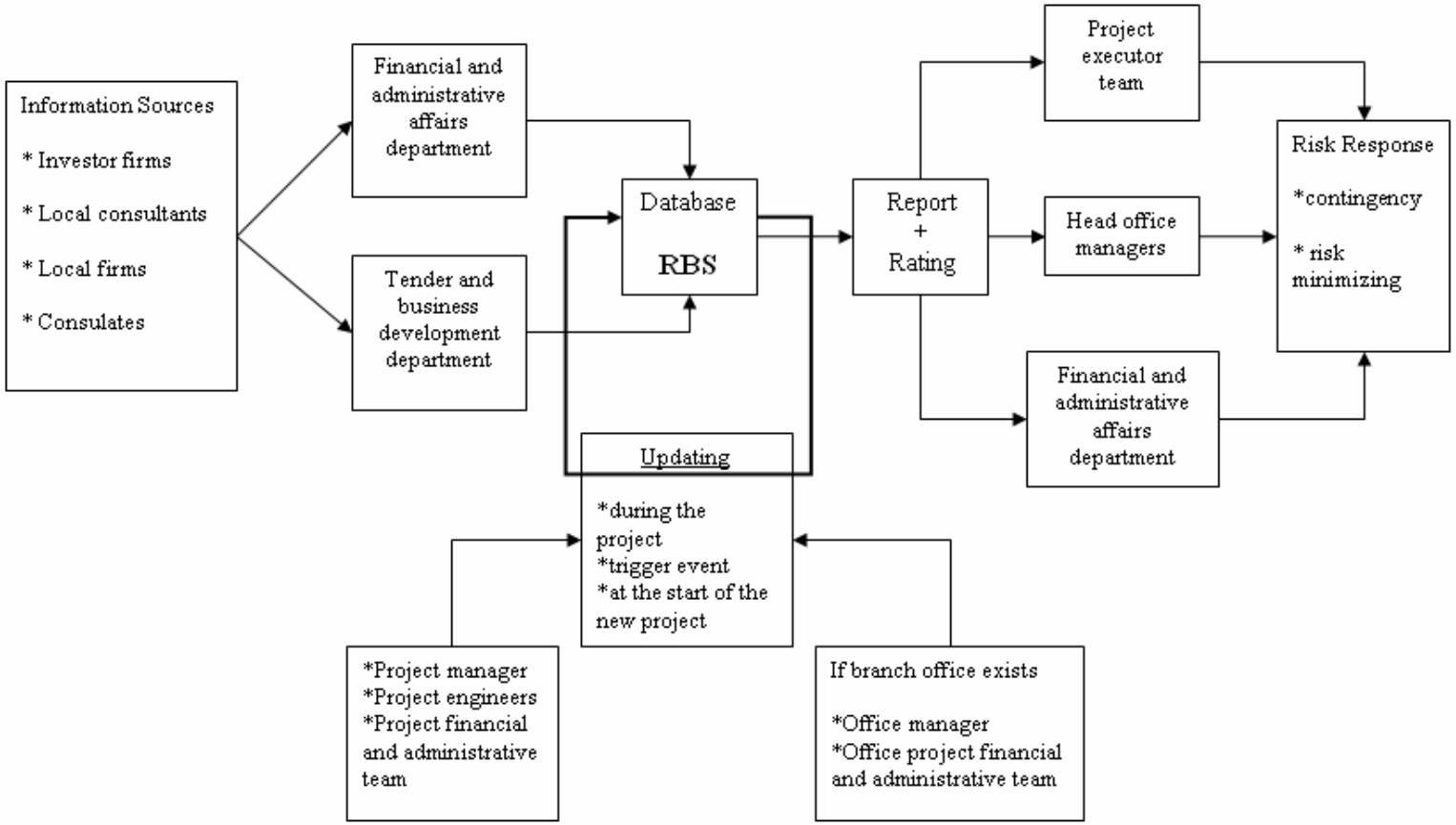


Figure 6.1. Company-specific country risk database system

6.2. Risk Assessment by RBS Case study

As previously mentioned, it is decided to have two outputs from the database; both a report of the country information based on RBS and a rating of the risk items that are listed in the RBS. In order to propose a risk assessment method based on RBS, two different calculation methods were tried and templates were prepared using Microsoft Excel. As the survey results provided to revise the RBS to a more comprehensive way to meet the requirements of the industry, in the risk assessment templates the revised form of the RBS is implemented.

First method requires the evaluator to give probability and impact values specific to the country by using 1-5 scale. In this system probability values imply the probability of occurrence of the risk source in the target country, and impact values imply the magnitude of the effect of the risk when it occurs. After probability and impact values rated, they are multiplied and divided to five in order to have the rating of the each risk again in 1-5 scale. Following the rating of each risk item, average of each group is taken in order to obtain the subheadings' risk ratings. Then with the subheadings' average the ratings of the six main categories are calculated. Finally, the average of 6 categories' ratings gives the risk rating of the country. The template for the first method is given in Appendix D.

In the second method, first, the relative importance weights of the risk in each level are given by the evaluator. These values imply the relative effect of the risks in the formation of category heading risk. Totally 20 comparison matrix is formed for relative importance weight rating. This evaluation is made using a 0-100 scale and only once that same weights will be utilized in all countries' risk assessment. These importance weights are normalized within each matrix and automatically transferred to the risk rating sheet of each country. Therefore, for risk assessment of a country, the evaluator gives only rating values for each risk item by considering the country and market conditions in the target country. The rating of each risk item implies the probability of occurrence of the risk in the country. These ratings will be multiplied with their normalized importance weights and added up to give rating of the higher level. Procedure continues by multiplying with importance weights and

adding them up until it reaches to the highest level: total country risk rating. The template of the method is given in Appendix E.

Respondent C is the expert who made the risk ratings for each method. Before evaluation, the calculation method and the definitions used in the assessments were explained to the expert. Then the first evaluation sheet was presented. The expert made the evaluation based on the case country conditions and gave the impact ratings with his experiences in the country. The case country is a politically stable European country. It has a functioning legal system and a small, modern, trade-dependent economy. The country is not densely populated and has a relatively low inflation rate. Its geography is characterized by mostly level to rolling interior plain surrounded by rugged hills and low mountains. Also, the country has mild climate throughout the year.

The first evaluation of the case country risks resulted in 0.9 which means very low in 1-5 scale. Also when converted to percentile it showed 17,9% total country risk in the case country. The expert indicated he believes the country has a risk rate that is less than 40% but must be higher than the obtained result.

After the first evaluation the second method was explained to the respondent. In this method firstly the importance weights for all countries are evaluated and then the rating for the case country risks is made. The result of the assessment is presented in the Table 6.1 and Table 6.2. The weighted method signified a total country risk of 35,9%. As the expert indicated that the case country risk should be around 40% the second method found to be more reliable. In the second method, calculation with the relative weights for each level results in a more realistic risk rating as the important risk factors for the expert have higher effect on the total country risk rating.

The second risk rating method also provide to observe the risk ratings of the subcategories such that the case country's cultural, political, construction market, legal, financial and economic risks are 45%, 50%, 44%, 36%, 26%, and 20%

respectively. Moreover it is observed that, according to the expert the economic risks and construction market risks have higher importance weights in the country risk rating. Therefore, as these higher weighted risk categories have risk ratings of 20% and 44% respectively, obtaining a total country risk of 35,9% is an expected result.

Table 6.1. Case importance weights evaluation

	Importance weights of country risks same for all countries	Importance weight 0-100	Importance normalized
1	1.CULTURAL RISKS	30	0,11320755
	2. POLITICAL RISKS	40	0,1509434
	3. CONSTRUCTION MARKET RISKS	55	0,20754717
	4. LEGAL RISKS	40	0,1509434
	5. FINANCIAL RISKS	40	0,1509434
	6. ECONOMIC RISKS	60	0,22641509
		265	1
2	1.1. Structure of the country	40	0,36363636
	1.2. Working culture of the country	70	0,63636364
		110	1
3	2.1. Government relations	40	0,25806452
	2.2. Structure of the host country	40	0,25806452
	2.3. Government policies	75	0,48387097
		155	1
4	3.1. Administration	30	0,14285714
	3.2. Resources	45	0,21428571
	3.3. Quality	40	0,19047619
	3.4. Costs	45	0,21428571
	3.5. Restrictions/Constraints	50	0,23809524
		210	1

Table 6.1 continued

5	**4.1. Legislative System and Laws**	45	0,25714286
	4.2. Bidding and Contractual Arrangements	60	0,34285714
	4.3. Requirements, Regulations and Restrictions	70	0,4
		175	1
6	1.1.1. Religion	20	0,11764706
	1.1.2. Language barrier	20	0,11764706
	1.1.3. Negative attitudes of the general public towards foreign contractors	60	0,35294118
	1.1.4. Difference in traditions	20	0,11764706
	1.1.5. Cultural corruption	20	0,11764706
	1.1.6. Discrimination of	30	0,17647059
		170	1
7	1.2.1. Lack of written contractual documents (preference of oral commitments)	20	0,11111111
	1.2.2. Bribery (in the host country)	20	0,11111111
	1.2.3. Nepotism and overvalue of relationship	20	0,11111111
	1.2.4. Differences in management philosophy	40	0,22222222
	1.2.5. Inability and reluctance to communicate	60	0,33333333
	1.2.6. Mafia power	20	0,11111111
		180	1
8	2.1.1. Hostilities with neighboring country or region	80	0,23529412
	2.1.2. Poor international relations	60	0,17647059
	2.1.3. War	100	0,29411765
	2.1.4. Terrorism	100	0,29411765
		340	1

Table 6.1 continued

9	2.2.1. Political continuity	20	0,05882353
	2.2.2. Political corruption	20	0,05882353
	2.2.3. Fractionalization by language, ethnic and regional groups	80	0,23529412
	2.2.4. Mentality, including nationalism, corruption and dishonesty	60	0,17647059
	2.2.5. Societal conflicts (e.g. demonstrations, strikes and street violence) public unrest	100	0,29411765
	2.2.6. Coup d'etat (coup)	60	0,17647059
		340	1
10	2.3.1. Negative attitude towards foreign investors	100	0,15625
	2.3.2. Nationalization/Expropriation	100	0,15625
	2.3.3. Government subsidy for foreign investors	40	0,0625
	2.3.4. Government act and regulations (unclear, negative, possible to change)	60	0,09375
	2.3.5. Restrictions to scope of engineering activities for foreign entrants	80	0,125
	2.3.6. Lack of recognition given to the construction grade and certifications	40	0,0625
	2.3.7. Protectionism/local preference	100	0,15625
	2.3.8. Political arrests and expulsions	40	0,0625
	2.3.9. Custom regulations	20	0,03125
	2.3.10. Government reluctance or inability to implement policies	20	0,03125
	2.3.11. Corporate taxes	40	0,0625
		640	1
11	3.1.1. Bureaucratic delays	100	0,15151515
	3.1.2. Progress payment delay	20	0,03030303
	3.1.3. Site handover delay	20	0,03030303
	3.1.4. Delay in design and regulatory approvals	80	0,12121212
	3.1.5. Lack of coordination and communication with the client organizations	80	0,12121212
	3.1.6. Lack of data and/or delay in the delivery of necessary project information	60	0,09090909
	3.1.7. Possibility of frequent change orders of the client	80	0,12121212

Table 6.1 continued

	3.1.8. Uncertainty about lines of responsibility and decision making procedures	60	0,09090909
	3.1.9. Lack or inaccessibility of business support mechanisms/professional services related with construction	60	0,09090909
	3.1.10. Conflicts between the private business interests and the state bureaucracy	40	0,06060606
	3.1.11. Custom delays	60	0,09090909
		660	1
12	3.2.1. Unavailability of construction materials	20	0,05
	3.2.2. Unavailability of professional local contractors/subcontractors	20	0,05
	3.2.3. Unavailability of skilled workers	20	0,05
	3.2.4. Unavailability of unskilled workers	40	0,1
	3.2.5. Unavailability of equipment and parts	40	0,1
	3.2.6. Lack of infrastructure (telecommunication, power supply, transportation, etc.)	20	0,05
	3.2.7. Unconformity of imported materials with host country practice	20	0,05
	3.2.8. Unavailability of repair and maintenance services of equipments	40	0,1
	3.2.9. Unavailability of spare parts	40	0,1
	3.2.10. Lack of enough knowledge about construction technologies	40	0,1
	3.2.11. Industrial relations	100	0,25
		400	1
13	3.3.1. Poor quality of local contractors	20	0,07142857
	3.3.2. Poor quality of locally available materials	40	0,14285714
	3.3.3. Poor quality of locally available equipments	40	0,14285714
	3.3.4. Poor quality of skilled personnel	40	0,14285714
	3.3.5. Poor communication skills of technical staff	40	0,14285714
	3.3.6. Low labor productivity	100	0,35714286
		280	1

Table 6.1 continued

14	3.4.1. Fluctuation of cost of construction services (subcontractor, designer, consultancy)	60	0,21428571
	3.4.2. Fluctuation of labor cost	60	0,21428571
	3.4.3. Fluctuation of material cost	80	0,28571429
	3.4.4. Fluctuation of equipment cost	80	0,28571429
		280	1
15	3.5.1. Climate constraints/restrictions	80	0,30769231
	3.5.2. Geological and geographical conditions	60	0,23076923
	3.5.3. Problems in technology transfer and implementation	60	0,23076923
	3.5.4. Problems in site security	60	0,23076923
		260	1
16	4.1.1. Unclearity	60	0,16666667
	4.1.2. Lack of maturity	60	0,16666667
	4.1.3. Complexity	60	0,16666667
	4.1.4. Possibility to change	60	0,16666667
	4.1.5. Lack of enforceability	60	0,16666667
	4.1.6. Interpretation	60	0,16666667
		360	1
17	4.2.1. Enforceability of construction contracts	60	0,21428571
	4.2.2. Procedure for bidding	60	0,21428571
	4.2.3. Types of bidding (differences in interpretation)	40	0,14285714
	4.2.4. Lack of transparency in bidding process	20	0,07142857
	4.2.5. Types of contracts	20	0,07142857
	4.2.6. Lack of standardization in format of contract document	20	0,07142857
	4.2.7. Lack of clarity of contractual regulations	20	0,07142857
	4.2.8. Lack of legality and standard dispute settlement procedure	20	0,07142857

Table 6.1 continued

	4.2.9. Delay in dispute resolution mechanisms	20	0,07142857
		280	1
18	4.3.1. Design specifications	60	0,06451613
	4.3.2. Construction codes	60	0,06451613
	4.3.3. Material standards	60	0,06451613
	4.3.4. Technical specs/standards	60	0,06451613
	4.3.5. Environment requirements	60	0,06451613
	4.3.6. Health and safety requirements	60	0,06451613
	4.3.7. Strict quality requirements	60	0,06451613
	4.3.8. Licenses and permits	60	0,06451613
	4.3.9. Restricting foreign assets	60	0,06451613
	4.3.10. Travel restrictions (problems in movement of personnel, visa restrictions)	100	0,10752688
	4.3.11. Strict importation restrictions of	90	0,09677419
	4.3.12. Problems for repatriation of capital	40	0,04301075
	4.3.13. Currency restrictions	40	0,04301075
	4.3.14. Differences in accounting principles/terms of financing	40	0,04301075
	4.3.15. Force majeure	80	0,08602151
		930	1
19	5.1. Government shortage of financial resources	40	0,15384615
	5.2. Unavailability of funds/financing for construction projects	40	0,15384615
	5.3. Tax issues (tax/nontax incentives in construction industry and tax discrimination)	40	0,15384615
	5.4. Difficulty in finding credits	40	0,15384615
	5.5. High insurance premiums	80	0,30769231
	5.6. Problems with local banking system	20	0,07692308
		260	1

Table 6.1 continued

20	6.1. General state of economy (economic crisis)	40	0,2
	6.2. Inflation	40	0,2
	6.3. Deflation	40	0,2
	6.4. Currency fluctuation	40	0,2
	6.5. Interest rate increase	40	0,2
		200	1

Table 6.2. Case country risk assessment

COUNTRY RISK SPECIFIC TO CONSTRUCTION MARKET CASE COUNTRY	Risk Rating: 35,9 %		
1.CULTURAL RISKS	Importance weight 0,113207547		**Rating:** 45,8 %
1.1. Structure of the country	0,363636364		**Rating:** 67,6 %
	Importance weight	**Rating**	**Rating**
1.1.1. Religion	0,118	20	2,35
1.1.2. Language barrier	0,118	60	7,06
1.1.3. Negative attitudes of the general public towards foreign contractors	0,353	100	35,29
1.1.4. Difference in traditions	0,118	100	11,76
1.1.5. Cultural corruption	0,118	20	2,35
1.1.6. Discrimination of	0,176	50	8,82
1.1.6.1. Gender		20	
1.1.6.2. Race		80	
1.2. Working culture of the country	0,636363636		**Rating:** 33,3 %
	Importance weight	**Rating**	**Rating**
1.2.1. Lack of written contractual documents (preference of oral commitments)	0,111	20	2,22
1.2.2. Bribery (in the host country)	0,111	20	2,22

Table 6.2 continued

1.2.3. Nepotism and overvalue of relationship	0,111	20	2,22
1.2.4. Differences in management philosophy	0,222	80	17,78
1.2.5. Inability and reluctance to communicate	0,333	20	6,67
1.2.6. Mafia power	0,111	20	2,22
2. POLITICAL RISKS	Importance weight 0,150943396		**Rating:** 50,0 %
2.1. Government relations	0,258064516		**Rating:** 41,2 %
	Importance weight	**Rating**	**Rating**
2.1.1. Hostilities with neighboring country or region	0,235	80	18,82
2.1.2. Poor international relations	0,176	60	10,59
2.1.3. War	0,294	20	5,88
2.1.4. Terrorism	0,294	20	5,88
2.2. Structure of the host country	0,258064516		**Rating:** 42 %
	Importance weight	**Rating**	**Rating**
2.2.1. Political continuity	0,059	20	1,18
2.2.2. Political corruption	0,059	20	1,18
2.2.3. Fractionalization by language, ethnic and regional groups	0,235	60	14,12
2.2.4. Mentality, including nationalism, corruption and dishonesty	0,176	40	7,06
2.2.5. Societal conflicts (e.g. demonstrations, strikes and street violence) public unrest	0,294	40	11,76
2.2.6. Coup d'etat (coup)	0,176	40	7,06

Table 6.2 continued

2.3. Government policies	0,483870968		**Rating:** 58,8 %
	Importance weight	**Rating**	**Rating**
2.3.1. Negative attitude towards foreign investors	0,156	60	9,38
2.3.2. Nationalization/Expropriation	0,156	100	15,63
2.3.3. Government subsidy for foreign investors	0,063	40	2,50
2.3.4. Government act and regulations (unclear, negative, possible to change)	0,094	20	1,88
2.3.5. Restrictions to scope of engineering activities for foreign entrants	0,125	60	7,50
2.3.6. Lack of recognition given to the construction grade and certifications	0,063	20	1,25
2.3.7. Protectionism/local preference	0,156	100	15,63
2.3.8. Political arrests and expulsions	0,063	20	1,25
2.3.9. Custom regulations	0,031	20	0,63
2.3.10. Government reluctance or inability to implement policies	0,031	20	0,63
2.3.11. Corporate taxes	0,063	40	2,50
3. CONSTRUCTION MARKET RISKS	Importance weight 0,20754717		**Rating:** 44,1 %
3.1. Administration	0,142857143		**Rating:** 49,7 %
	Importance weight	**Rating**	**Rating**
3.1.1. Bureaucratic delays	0,152	100	15,15
3.1.2. Progress payment delay	0,030	20	0,61
3.1.3. Site handover delay	0,030	20	0,61
3.1.4. Delay in design and regulatory approvals	0,121	60	7,27
3.1.5. Lack of coordination and communication with the client organizations	0,121	60	7,27

Table 6.2 continued

3.1.6. Lack of data and/or delay in the delivery of necessary project information	0,091	40	3,64
3.1.7. Possibility of frequent change orders of the client	0,121	60	7,27
3.1.8. Uncertainty about lines of responsibility and decision making procedures	0,091	20	1,82
3.1.9. Lack or inaccessibility of business support mechanisms/professional services related with construction	0,091	20	1,82
3.1.10. Conflicts between the private business interests and the state bureaucracy	0,061	40	2,42
3.1.11. Customs delays	0,091	20	1,82
3.2. Resources	0,214285714		**Rating:** 44,0 %
	Importance weight	**Rating**	**Rating**
3.2.1. Unavailability of construction materials	0,050	20	1,00
3.2.2. Unavailability of professional local contractors/subcontractors	0,050	20	1,00
3.2.3. Unavailability of skilled workers	0,050	20	1,00
3.2.4. Unavailability of unskilled workers	0,100	20	2,00
3.2.5. Unavailability of equipment and parts	0,100	20	2,00
3.2.6. Lack of infrastructure (telecommunication, power supply, transportation, etc.)	0,050	20	1,00
3.2.7. Unconformity of imported materials with host country practice	0,050	20	1,00
3.2.8. Unavailability of repair and maintenance services of equipments	0,100	20	2,00
3.2.9. Unavailability of spare parts	0,100	40	4,00

Table 6.2 continued

3.2.10. Lack of enough knowledge about construction technologies	0,100	40	4,00
3.2.11. Industrial relations	0,250	100	25,00
3.2.11.1. Power of trade unions		100	
3.2.11.2. Local labor relations		100	
3.3. Quality	0,19047619		**Rating:** 41,4 %
	Importance weight	**Rating**	**Rating**
3.3.1. Poor quality of local contractors	0,071	20	1,43
3.3.2. Poor quality of locally available materials	0,143	20	2,86
3.3.3. Poor quality of locally available equipments	0,143	20	2,86
3.3.4. Poor quality of skilled personnel	0,143	20	2,86
3.3.5. Poor communication skills of technical staff	0,143	20	2,86
3.3.6. Low labor productivity	0,357	80	28,57
3.4. Costs	0,214285714		**Rating:** 45,7 %
	Importance weight	**Rating**	**Rating**
3.4.1. Fluctuation of cost of construction services (subcontractor, designer, consultancy)	0,214	40	8,57
3.4.2. Fluctuation of labor cost	0,214	40	8,57
3.4.3. Fluctuation of material cost	0,286	60	17,14
3.4.4. Fluctuation of equipment cost	0,286	40	11,43

Table 6.2 continued

3.5. Restrictions/Constraints	0,238095238		**Rating:** 42 %
	Importance weight	**Rating**	**Rating**
3.5.1. Climate constraints/restrictions	0,308	60	18,46
3.5.2. Geological and geographical conditions	0,231	40	9,23
3.5.3. Problems in technology transfer and implementation	0,231	20	4,62
3.5.4. Problems in site security	0,231	40	9,23
	Importance weight		
4. LEGAL RISKS	0,150943396		**Rating:** 36,4 %
4.1. Legislative System and Laws	0,257142857		**Rating:** 20,0 %
	Importance weight	**Rating**	**Rating**
4.1.1. Unclearity	0,167	20	3,33
4.1.2. Lack of maturity	0,167	20	3,33
4.1.3. Complexity	0,167	20	3,33
4.1.4. Possibility to change	0,167	20	3,33
4.1.5. Lack of enforceability	0,167	20	3,33
4.1.6. Interpretation	0,167	20	3,33
4.2. Bidding and Contractual Arrangements	0,342857143		**Rating:** 40,0 %
	Importance weight	**Rating**	**Rating**
4.2.1. Enforceability of construction contracts	0,214	60	12,86
4.2.2. Procedure for bidding	0,214	60	12,86

Table 6.2 continued

4.2.3. Types of bidding (differences in interpretation)	0,143	40	5,71
4.2.4. Lack of transparency in bidding process	0,071	20	1,43
4.2.5. Types of contracts	0,071	20	1,43
4.2.6. Lack of standardization in format of contract document	0,071	20	1,43
4.2.7. Lack of clarity of contractual regulations	0,071	20	1,43
4.2.8. Lack of legality and standard dispute settlement procedure	0,071	20	1,43
4.2.9. Delay in dispute resolution mechanisms	0,071	20	1,43
4.3. Requirements, Regulations and Restrictions	0,4		**Rating:** 43,9 %
	Importance weight	**Rating**	**Rating**
4.3.1. Design specifications	0,065	40	2,58
4.3.2. Construction codes	0,065	40	2,58
4.3.3. Material standards	0,065	40	2,58
4.3.4. Technical specs/standards	0,065	40	2,58
4.3.5. Environment requirements	0,065	40	2,58
4.3.6. Health and safety requirements	0,065	40	2,58
4.3.7. Strict quality requirements	0,065	40	2,58
4.3.8. Licenses and permits	0,065	40	2,58
4.3.9. Restricting foreign assets	0,065	40	2,58
4.3.10. Travel restrictions (problems in movement of personnel, visa restrictions)	0,108	80	8,60
4.3.11. Strict importation restrictions of	0,097	53	5,16
4.3.11.1. Labor		80	
4.3.11.2. Material		40	
4.3.11.3. Equipment/spare parts		40	

Table 6.2 continued

4.3.12. Problems for repatriation of capital	0,043	20	0,86
4.3.13. Currency restrictions	0,043	20	0,86
4.3.14. Differences in accounting principles/terms of financing	0,043	40	1,72
4.3.15. Force majeure	0,086	40	3,44
5. FINANCIAL RISKS	Importance weight 0,150943396		**Rating:** 26,2 %
	Importance weight	**Rating**	**Rating**
5.1. Government shortage of financial resources	0,154	20	3,08
5.2. Unavailability of funds/financing for construction projects	0,154	20	3,08
5.3. Tax issues (tax/nontax incentives in construction industry and tax discrimination)	0,154	20	3,08
5.4. Difficulty in finding credits	0,154	20	3,08
5.5. High insurance premiums	0,308	40	12,31
5.6. Problems with local banking system	0,077	20	1,54
6. ECONOMIC RISKS	Importance weight 0,226415094		**Rating:** 20,0 %
	Importance weight	**Rating**	**Rating**
6.1. General state of economy (economic crisis)	0,200	20	4,00
6.2. Inflation	0,200	20	4,00
6.3. Deflation	0,200	20	4,00
6.4. Currency fluctuation	0,200	20	4,00
6.5. Interest rate increase	0,200	20	4,00

Following the risk assessment procedure, a final interview is conducted with the Responded C. He evaluated the results of the proposed country risk assessment method of RBS. Firstly, he stated that based on his experiences in the market, the case country's risk must be less than 50% and should be around 40%. Therefore, it is expressed that the risk rating result of the method as 35,9% is realistic that it reflects the country conditions accurately. Then the expert indicated that using a 0-100 scale is more appropriate as 1-5 scale limits the relative evaluation. About the evaluation procedure of the method, the expert stated that he easily applied the process and obtained the results.

On the applicability of the method in the construction companies' country risk assessment, the expert denoted that the rating will be beneficial as a "*first step market entry decision*". The rating will provide important information on the new market's risks but the decision should be made with additional information. He also explained that; although it is not a scientific method, the contractors usually decide with their engineering judgment and intuition and they are not used to percentile ratings. But the expert restated the RBS based risk rating method is beneficial in country risk assessment specific to construction industry. Finally he noted that the method should be improved by detailing it with explanations of each risk factor. It is indicated that the meaning of the risk items should be clearly explained in a manual in order to provide more adequate and systematic evaluations by all evaluators.

CHAPTER 7

CONCLUSION

Construction sector's risky nature becomes even more apparent when the international construction is concerned since foreign markets involve complex risks of international transactions in addition to the uncertainties of domestic construction. This makes the international construction market entry decisions more difficult and therefore concern over international business risks is increased. As a result, many researchers conducted researches about country risk evaluation. A number of authors have described risks of international construction and many others proposed methods for assessment of these risks. However, current practices and perceptions of construction companies illustrates the gap between the proposed methods and common practice as intuition, expert skill and engineering judgment always influence the decision making. In fact, there is a need of systematic methods in country risk assessments. Through literature survey, within this study, it is observed that although some previous researches aimed at determining the risks in the construction business, number of studies that have exclusively mentioned and focused on construction specific country risks is rather low. Besides, also the country risk lists developed by international risk management consultancy firms not comprehensively address the construction market risks. Although the risks of conducting business in international markets or problems faced during construction are mentioned, there is not a comprehensive risk list containing both the country risk that have impact on construction business and the construction market risks that are affected by the country conditions. Therefore, in country risk assessments or in expanding decisions to foreign markets, contractors are in need of construction specific tools.

For this purpose, the main objective of this thesis was to present a construction specific country RBS which provides a systematic list to assess country risk before

conducting business in a foreign market. While preparing this construction specific RBS, not only macro level country risks but also market risks for construction are considered in order to reflect the real risks of performing construction business in foreign countries.

In the context of this study, risk management and country risk management concepts are presented and previous studies on country risk assessment are discussed. Besides, the need for construction specific risk assessment tools is also highlighted.

The RBS is prepared with an extensive literature review and planned to be revised in the light of suggestions of experts. In this context, an interview study is conducted with six experienced managers from four Turkish construction companies operating in international markets. These managers' experiences and methods they use to assess country risks are investigated and as a result RBS is revised with the risk factors emphasized by the experts. Consequently, a comprehensive country RBS is constructed that will hopefully meet the requirements of the industry.

Following the construction and revision of the country RBS, its applicability is tested by conducting a case study of company-specific database system which is proposed for implementation of RBS. The case study findings demonstrate the applicability of RBS in practice and its potential as a systematic country risk assessment tool. Afterwards, the reliability of RBS in country risk assessments is tested with a case study. An expert evaluated a country by using the proposed RBS and the result obtained is found satisfactory.

As this thesis is concerned with international contractors aiming to assess the risk of construction market at different countries, one of the main concerns is to find out how construction companies may implement a RBS based system in their company. Therefore the aim is not limited to testing the reliability of the mathematical country

risk rating results of proposed method based on RBS. This is one of the main point that differs this study from previous researches.

The interview study has revealed some perceptions and applications of the Turkish construction companies. Although research findings presents valuable information on prevalent practice of contractors and test the reliability of RBS, since the research study covers a small sample, these facts could not be generalized as if the answers of the respondents reflect all companies in the industry. However, the need for construction specific tools is noticeable and most striking points are identified and some common ideas are explored. The following conclusions can be drawn from the interview study:

- The entire sample surveyed indicated that respondent companies did not make use of any analytical technique or systematic method in risk assessment. This demonstrates that Turkish contractors prefer to evaluate the magnitude of country risks on their projects based on their experiences, intuition and judgment. In most companies, necessary risk information is collected according to checklists or priority lists but the output is generally in a report form only. After this procedure, reports are submitted to superiors for necessary measures. Following decisions also depend on experiences and intuition.

- Another outcome of the survey is the fact that post project appraisal on country risk evaluation is not a prevalent practice in Turkish construction sector. As a result, the risk information gained during the projects mainly stays as personal experiences of project managers. As risk information is not stored and updated, a corporate memory can not be constructed.

- The aim of collecting risk experiences of the managers is to benefit from them in the RBS revision. The survey results on country risk experiences indicated that almost all of the problem sources of construction in foreign countries are included in the RBS. Most significant problems of foreign

contracting are observed as poor local labor productivity and strict regulations of movement of personnel. Also fluctuation of material costs and visa regulations for foreign labor are observed as commonly stated problem sources.

- Likewise, the most risky and least risky country differentiation criteria of the experts are investigated in order to observe the important risk factors that make a country very risky. Almost all of the respondents expressed that countries with political instability and immature legal systems with imperfect laws and regulations are the most risky ones. The results revealed that these important factors are also present in the content of the RBS. This demonstrates that the proposed risk list is comprehensive to assess country risks related with construction.

- Almost all of the respondents indicated that they evaluate the legislative system and laws and restrictions and regulations about construction business, and workmanship issues in order to evaluate foreign country's risk. Therefore, the risk evaluation criteria that respondents have mentioned proved the importance of the risk items that are included in the RBS.

- The entire sample surveyed stated that RBS is adequate to assess country risks specific to construction markets. Therefore the reliability of the RBS has been tested by the opinions of the managers who are experienced in foreign markets and it was evaluated as comprehensive and sufficiently detailed for construction companies' country risk assessment. Moreover, some additions to RBS were made to enhance it in a way that it includes every possible risk factor related with the foreign construction markets.

- It is a fact that almost all respondents believe the contractors' tendency to keep their knowledge and experiences to themselves for preventing their rivals benefit. Considering this fact, most of the respondents found TCA's operative effect on RBS database inapplicable. In addition all of the experts

have lack of confidence to other company's risk evaluations as they believe no other person's risk attitude will be the same as their own attitude or as there will always be differences in company views.

From the above conclusions, major findings about the prevalent risk assessment practice of the Turkish constructors are the lack of systematic method of country risk assessment, and the loss of valuable experience gained during project execution due to lack of systematic collection and updating procedures. Also, TCA operated system is found as ineffective by the respondents. Therefore, a company-specific database system; that is presented in the light of the case study results and RBS based risk assessment method are proposed to overcome the shortcomings of the present applications of contractors. In the company-specific database system the responsible departments, information flow, outputs and updating procedures are identified. Then a country risk assessment method that uses the weighted ratings for country risk evaluation is proposed.

The method is presented as an aid to construction companies in international market risk assessments and it has some benefits and shortcomings. The major benefit of the proposed method is that it ensures a systematic country risk assessment for foreign market entry decisions. Moreover, database system helps creation of a risk memory in the company for future evaluations.

Major shortcoming of the risk assessment method is observed as the subjectivity of the ratings. To reduce the subjectivity, it is suggested to make assessments with a number of company members and take the average as the country risk. Another suggestion is making post market evaluations by considering the experiences in the market in order to check the reliability of the assessments and to correct the pre-assessments.

Another shortcoming is the assumption that there is no correlation between the risk factors. In fact, weight*impact calculations in the proposed method considers the risks' weighted effects in the country risk assessment but the correlations between

the factors are not discussed so the risk inter-dependencies are not determined. Therefore, methods such as ANP may be used in order to take into account the correlations in risk rating calculation to strengthen the proposed tool, but such methods do not provide very practical solutions.

As a final shortcoming, it should be noted that the proposed methods is mainly for market entry decisions and tender preparation stage requires another evaluation as project risk assessment. Therefore, both construction market and country risks' effects on the project should be assessed after market entrance and development of risk assessment methods that can be used during tender preparation stage requires further study.

Finally, it can be concluded that a simple but effective decision support tool is proposed within this study. However, as in the case of every decision support tool, this method causes some information loss due to efforts of providing systematic procedures in country risk assessment. Hence, this model is not a perfect solution and it can not be solely used since international market decisions are complex problems that always involve intuition, expert skill and judgments. Therefore, this methodology is believed to serve as an advisory system for the decision markers, and will not substitute intuition; rather it may lead to more formal and systematic risk assessment during market entry decisions.

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APPENDIX A

A SAMPLE OF THE QUESTIONNAIRE

1. General Information about the Company

1. For how many years the company has been in the sector?

2. What is the scope of work of the company?

3. For how many years the company has been working in foreign markets?

4. In which countries/foreign markets the company has been working or had worked?

5. What is the company's foreign market volume/overseas turnover?

6. Is the company a member of UIC?

7. What is the interviewee's/respondent's position in the company? And his/her experiences?

2. Company's risk assessment experiences and viewpoint

1. While you are deciding to expand into a new market, how do you assess the risk of that market/project?

   What kind of country risk assessment methods do you use? Or do you use any?

2. How do you gather the information about the country's risk associated with construction market?

Do you store this information?
Do you use them for future projects?

3. Do you make another risk evaluation at the end of the project or while going out of a market (Post Project Appraisal)?

4. What kind of risks or problems did you faced with while doing business in foreign markets? (associated with construction market) Please give some examples for each category...

5. What is the most risky country you have worked? What is the less risky one? Why is the difference? What make you think that one country is more risky than the other?

6. Which criteria do you think to be evaluated to assess risk of a country associated with construction?

7. Do you think this RBS is sufficient to assess the country risk? Any other risk factor should be included?

3. Suggestions for RBS utilization

1. Do you think it will be useful if TCA stores the risk information of countries' according to this RBS?

2. If yes; how TCA should gather the risk information of countries' associated with construction market?

3. Are you willing to share your risk experiences with other companies?

4. If no; will it be useful if your company stores the risk experiences for different countries according to this RBS?

APPENDIX B

RBS (REVISED)

COUNTRY RISKS

CULTURAL RISKS

Structure of the country

- Religion
- Language barrier
- Negative attitudes of the general public towards foreign contractors
- Difference in traditions
- Cultural corruption
- Discrimination of
  - . Gender
  - . Race

Working culture of the country

- Lack of written contractual documents (preference of oral commitments)
- Bribery (in the host country)
- Nepotism, overvalue of relationship
- Differences in management philosophy
- Inability and reluctance to communicate
- Mafia power

CONSTRUCTION MARKET RISKS

Administration

- Bureaucratic delays
- Progress payment delay
- Site handover delay
- Delay in regulatory approvals
- Lack of coordination and communication with the client organizations
- Lack of data and/or delay in the delivery of necessary project information
- Possibility of frequent change orders of the client
- Uncertainty about lines of responsibility and decision making procedures
- Lack or inaccessibility of business support mechanisms/professional services related with construction
- Conflicts between the private business interests and the state bureaucracy
- Customs delays

Resources

- Unavailability of construction materials
- Unavailability of professional local contractors/subcontractors
- Unavailability of skilled workers
- Unavailability of unskilled workers
- Unavailability of equipment and parts
- Lack of infrastructure (telecommunication, power supply, transportation, etc.)
- Unconformity of imported materials with host country practice
- Unavailability of repair and maintenance services of equipments
- Unavailability of spare parts
- Lack of enough knowledge about construction technologies
- Industrial relations
  - . Power of trade unions
  - . Local labor relations

Quality

- Poor quality of local contractors
- Poor quality of locally available materials
- Poor quality of locally available equipments
- Poor quality of skilled personnel
- Poor communication skills of technical staff
- Low labor productivity

Restrictions/Constraints

- Climate constraints/restrictions
- Geological and geographical conditions
- Problems in technology transfer and implementation
- Problems in site security

Costs

- Fluctuation of cost of construction services (subcontractor, designer, consultancy)
- Fluctuation of labor cost
- Fluctuation of material cost
- Fluctuation of equipment cost

LEGAL RISKS

Legislative System and Laws

- Unclearity
- Lack of maturity
- Complexity
- Possibility to change
- Lack of enforceability
- Interpretation

Bidding and Contractual Arrangements

- Enforceability of construction contracts
- Procedure for bidding
- Types of bidding (differences in interpretation)
- Lack of transparency in bidding process
- Types of contracts
- Lack of standardization in format of contract document
- Lack of clarity of contractual regulations
- Lack of legality and standard dispute settlement procedure
- Delay in dispute resolution mechanisms

Requirements, Regulations and Restrictions

- Design specifications
- Construction codes
- Material standards
- Technical specs/standards
- Environment requirements
- Health and safety requirements
- Strict quality requirements
- Licenses and permits
- Restricting foreign assets
- Travel restrictions (problems in movement of personnel, visa restrictions)
- Strict importation restrictions of
  - . Labor
  - . Material
  - . Equipment/spare parts
- Problems for repatriation of capital
- Currency restrictions
- Differences in accounting principles/terms of financing
- Force majeure

POLITICAL RISKS

Government relations

- Hostilities with neighboring country or region
- Poor international relations
- War
- Terrorism

Structure of the host country

- Political continuity
- Political corruption
- Fractionalization by language, ethnic and regional groups
- Mentality, including nationalism, corruption and dishonesty
- Societal conflicts (e.g. demonstrations, strikes and street violence) public unrest
- Coup d'etat (coup)

Government policies

- Negative attitude towards foreign investors
- Nationalization/Expropriation
- Government subsidy for foreign investors
- Government act and regulations (unclear, negative, possible to change)
- Restrictions to scope of engineering activities for foreign entrants
- Lack of recognition given to the construction grade and certifications
- Protectionism/local preference
- Political arrests and expulsions
- Custom regulations
- Government reluctance or inability to implement policies
- Corporate taxes

FINANCIAL RISKS

- Government shortage of financial resources
- Unavailability of funds/financing for construction projects
- Tax issues (tax/nontax incentives in construction industry and tax discrimination)
- Difficulty in finding credits
- High insurance premiums
- Problems with local banking system

ECONOMIC RISKS

- General state of economy (economic crisis)
- Inflation
- Deflation
- Currency fluctuation
- Interest rate increase

APPENDIX C

CASE STUDY QUESTIONNAIRE AND DATABASE SYSTEM EXAMPLE MODEL

INTERVIEW QUESTIONNAIRE

1. Whose responsibility can it be the preparation and updating of this database by collection of the data and making risk rating?
   Which departments in the company should work for this database?

   (such as business development dept., tender preparation dept. especially in the company's organization chart?)

2. What are the information resources? Where and from whom the responsible person will collect the information about country risks and form the database accordingly?

3. What will be the type of information?
   (i.e. Numerical values such as GNP and inflation, or evaluations such as high inflation)

4. When it is considered that for some risk factors, such as negative attitude of public, the numeric values could not be gathered, does the rating will be sufficient?

5. After gathering the country risk information according to RBS, 'risk rating' will be presented through the 'risk assessment'. How should this risk rating be done? 1-5 scale will be used in:
   a. Importance weight * impact values, or
   b. A single risk rating value for each risk

*Importance weight (probability): What is the probability of facing problems in this market because of the risk factor? Or what is the probability of occurrence of the risk source?

*Impact (magnitude): What is the magnitude of the effect of the risk on the company when it occurs?

Or,

*Risk rating by single assessment: What is the percentile proportion of the risk factor in the total country risk?

6. As the country risks are dynamic that changes due to variations in the country conditions, the method suggests updating of the database.

7. Therefore, how frequently the database should be updated?
    a. Periodic
    b. Trigger event
    c. Post-project appraisal

8. Who will be responsible fort he updating procedures?

9. How should be the access to the database?
   (i.e. web based access to managers)

10. The major bottleneck of the proposed risk rating method is the subjectivity of the assessments as it depends on the risk attitudes of the decision markers.

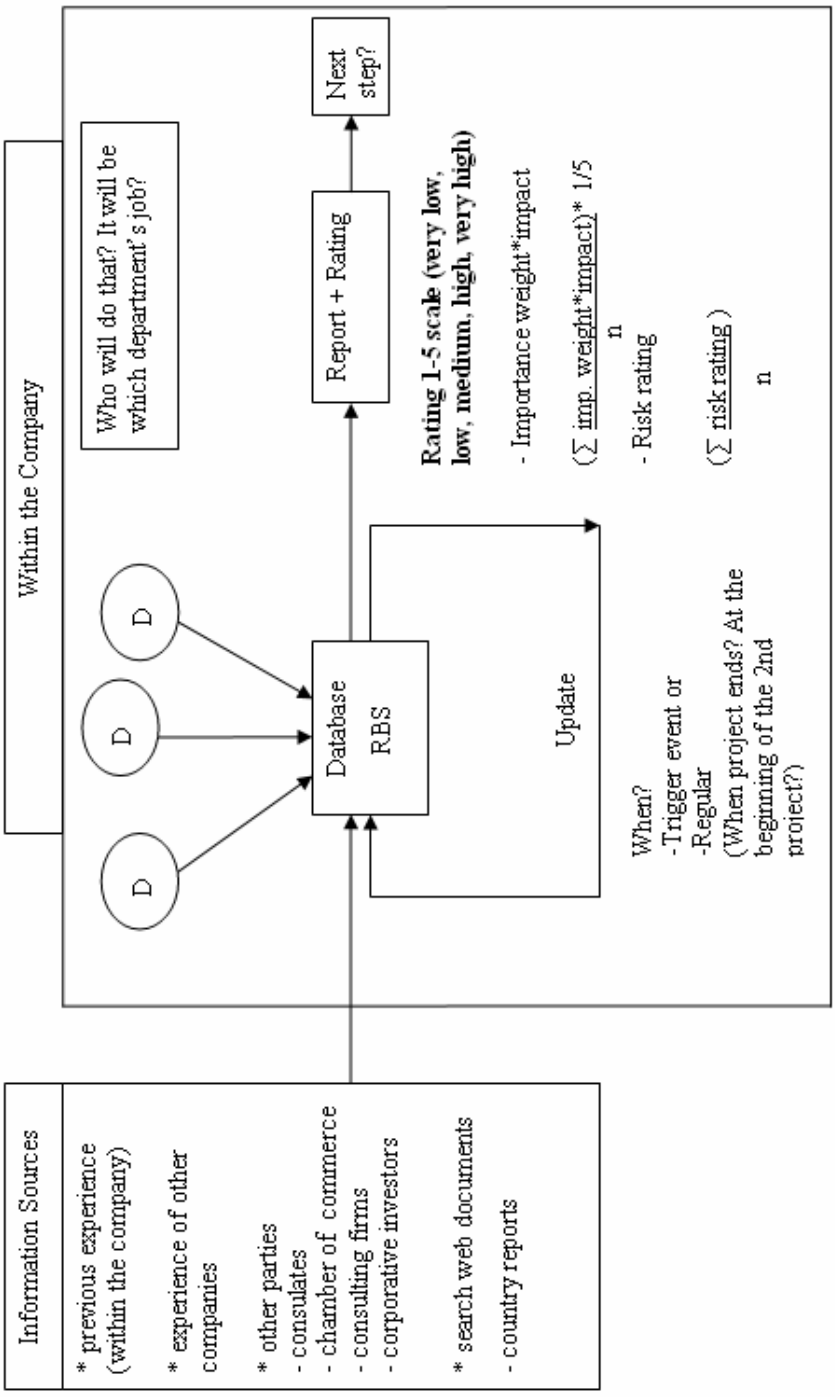
11. How the subjectivity of the system may be reduced?
    a. By assessment of the same person in each rating
    b. By taking the average of the different employees' risk assessments for the same country
    c. By testing the reliability considering past assessments

12. What should be the next step? Where the risk rating output should be used?
    a. In new market entrance decisions
    b. During the tender preparation for determining the contingency amount
    c. In contract management procedures

13. This report will be submitted to which employees in the company? How should be the information flow?

14. What are the bottlenecks and critical success factors of this system?

DATABASE SYSTEM EXAMPLE MODEL



APPENDIX D

RISK ASSESSMENT TEMPLATE SHEET FOR METHOD I

COUNTRY RISK SPECIFIC TO CONSTRUCTION MARKET	Risk Rating:	0,0
1.CULTURAL RISKS	Rating:	0,0

1.1. Structure of the country	Probability	Impact	Rating:	0,0
1.1.1. Religion			0	
1.1.2. Language barrier			0	
1.1.3. Negative attitudes of the general public towards foreign contractors			0	
1.1.4. Difference in traditions			0	
1.1.5. Cultural corruption			0	
1.1.6. Discrimination of			0	
1.1.6.1. Gender	0			
1.1.6.2. Race	0			

1.2. Working culture of the country	Probability	Impact	Rating:	0,0
1.2.1. Lack of written contractual documents (preference of oral commitments)			0	
1.2.2. Bribery (in the host country)			0	
1.2.3. Nepotism and overvalue of relationship			0	
1.2.4. Differences in management philosophy			0	
1.2.5. Inability and reluctance to communicate			0	
1.2.6. Mafia power			0	

2. POLITICAL RISKS			Rating:	0,0
2.1. Government relations			**Rating:**	0,0
	Probability	**Impact**	**Rating**	
2.1.1. Hostilities with neighboring country or region			0	
2.1.2. Poor international relations			0	
2.1.3. War			0	
2.1.4. Terrorism			0	
2.2. Structure of the host country			**Rating:**	0
	Probability	**Impact**	**Rating**	
2.2.1. Political continuity			0	
2.2.2. Political corruption			0	
2.2.3. Fractionalization by language, ethnic and regional groups			0	
2.2.4. Mentality, including nationalism, corruption and dishonesty			0	
2.2.5. Societal conflicts (e.g. demonstrations, strikes and street violence) public unrest			0	
2.2.6. Coup d'etat (coup)			0	
2.3. Government policies			**Rating:**	0,0
	Probability	**Impact**	**Rating**	
2.3.1. Negative attitude towards foreign investors			0	
2.3.2. Nationalization/Expropriation			0	
2.3.3. Government subsidy for foreign investors			0	
2.3.4. Government act and regulations (unclear, negative, possible to change)			0	

2.3.5. Restrictions to scope of engineering activities for foreign entrants			0
2.3.6. Lack of recognition given to the construction grade and certifications			0
2.3.7. Protectionism/local preference			0
2.3.8. Political arrests and expulsions			0
2.3.9. Custom regulations			0
2.3.10. Government reluctance or inability to implement policies			0
2.3.11. Corporate taxes			0
3. CONSTRUCTION MARKET RISKS			**Rating:** 0,0
3.1. Administration			**Rating:** 0,0
	Probability	**Impact**	**Rating**
3.1.1. Bureaucratic delays			0
3.1.2. Progress payment delay			0
3.1.3. Site handover delay			0
3.1.4. Delay in design and regulatory approvals			0
3.1.5. Lack of coordination and communication with the client organizations			0
3.1.6. Lack of data and/or delay in the delivery of necessary project information			0
3.1.7. Possibility of frequent change orders of the client			0
3.1.8. Uncertainty about lines of responsibility and decision making procedures			0

3.1.9. Lack or inaccessibility of business support mechanisms/professional services related with construction			0
3.1.10. Conflicts between the private business interests and the state bureaucracy			0
3.1.11. Custom delays			0
3.2. Resources			**Rating:** 0,0
	Probability	**Impact**	**Rating**
3.2.1. Unavailability of construction materials			0
3.2.2. Unavailability of professional local contractors/subcontractors			0
3.2.3. Unavailability of skilled workers			0
3.2.4. Unavailability of unskilled workers			0
3.2.5. Unavailability of equipment and parts			0
3.2.6. Lack of infrastructure (telecommunication, power supply, transportation, etc.)			0
3.2.7. Unconformity of imported materials with host country practice			0
3.2.8. Unavailability of repair and maintenance services of equipments			0
3.2.9. Unavailability of spare parts			0
3.2.10. Lack of enough knowledge about construction technologies			0
3.2.11. Industrial relations			0
3.2.11.1. Power of trade unions		0	
3.2.11.2. Local labor relations		0	
3.3. Quality			**Rating:** 0,0
	Probability	**Impact**	**Rating**
3.3.1. Poor quality of local contractors			0
3.3.2. Poor quality of locally available materials			0

3.3.3. Poor quality of locally available equipments			0
3.3.4. Poor quality of skilled personnel			0
3.3.5. Poor communication skills of technical staff			0
3.3.6. Low labor productivity			0
3.4. Costs			**Rating:** 0,0
	Probability	**Impact**	**Rating**
3.4.1. Fluctuation of cost of construction services (subcontractor, designer, consultancy)			0
3.4.2. Fluctuation of labor cost			0
3.4.3. Fluctuation of material cost			0
3.4.4. Fluctuation of equipment cost			0
3.5. Restrictions/Constraints			**Rating:** 0
	Probability	**Impact**	**Rating**
3.5.1. Climate constraints/restrictions			0
3.5.2. Geological and geographical conditions			0
3.5.3. Problems in technology transfer and implementation			0
3.5.4. Problems in site security			0
4. LEGAL RISKS			**Rating:** 0,0
4.1. Legislative System and Laws			**Rating:** 0,0
	Probability	**Impact**	**Rating**
4.1.1. Unclearity			0
4.1.2. Lack of maturity			0
4.1.3. Complexity			0

4.1.4. Possibility to change			0
4.1.5. Lack of enforceability			0
4.1.6. Interpretation			0
4.2. Bidding and Contractual Arrangements			**Rating:** 0,0
	Probability	**Impact**	**Rating**
4.2.1. Enforceability of construction contracts			0
4.2.2. Procedure for bidding			0
4.2.3. Types of bidding (differences in interpretation)			0
4.2.4. Lack of transparency in bidding process			0
4.2.5. Types of contracts			0
4.2.6. Lack of standardization in format of contract document			0
4.2.7. Lack of clarity of contractual regulations			0
4.2.8. Lack of legality and standard dispute settlement procedure			0
4.2.9. Delay in dispute resolution mechanisms			0
4.3. Requirements, Regulations and Restrictions			**Rating:** 0,0
	Probability	**Impact**	**Rating**
4.3.1. Design specifications			0
4.3.2. Construction codes			0
4.3.3. Material standards			0
4.3.4. Technical specs/standards			0
4.3.5. Environment requirements			0
4.3.6. Health and safety requirements			0
4.3.7. Strict quality requirements			0
4.3.8. Licenses and permits			0
4.3.9. Restricting foreign assets			0

4.3.10. Travel restrictions (problems in movement of personnel, visa restrictions)			0
4.3.11. Strict importation restrictions of			0,0
4.3.11.1. Labor		0	
4.3.11.2. Material		0	
4.3.11.3. Equipment/spare parts		0	
4.3.12. Problems for repatriation of capital			0
4.3.13. Currency restrictions			0
4.3.14. Differences in accounting principles/terms of financing			0
4.3.15. Force majeure			0
5. FINANCIAL RISKS			**Rating:** 0,0
	Probability	**Impact**	**Rating**
5.1. Government shortage of financial resources			0
5.2. Unavailability of funds/financing for construction projects			0
5.3. Tax issues (tax/nontax incentives in construction industry and tax discrimination)			0
5.4. Difficulty in finding credits			0
5.5. High insurance premiums			0
5.6. Problems with local banking system			0

6. ECONOMIC RISKS			Rating: 0,0
	Probability	Impact	Rating
6.1. General state of economy (economic crisis)			0
6.2. Inflation			0
6.3. Deflation			0
6.4. Currency fluctuation			0
6.5. Interest rate increase			0

APPENDIX E

RISK ASSESSMENT TEMPLATE SHEET FOR METHOD II

Importance weights of country risks same for all countries	Importance weight 0-100	Importance normalized
1.CULTURAL RISKS		
2. POLITICAL RISKS		
3. CONSTRUCTION MARKET RISKS		
4. LEGAL RISKS		
5. FINANCIAL RISKS		
6. ECONOMIC RISKS	0	0
1.1. Structure of the country		
1.2. Working culture of the country	0	0
2.1. Government relations		
2.2. Structure of the host country		
2.3. Government policies	0	0
3.1. Administration		
3.2. Resources		
3.3. Quality		
3.4. Costs		
3.5. Restrictions/Constraints	0	0

4.1. Legislative System and Laws **4.2. Bidding and Contractual Arrangements** **4.3. Requirements, Regulations and Restrictions**		
	0	0
1.1.1. Religion 1.1.2. Language barrier 1.1.3. Negative attitudes of the general public towards foreign contractors 1.1.4. Difference in traditions 1.1.5. Cultural corruption 1.1.6. Discrimination of		
	0	0
1.2.1. Lack of written contractual documents (preference of oral commitments) 1.2.2. Bribery (in the host country) 1.2.3. Nepotism and overvalue of relationship 1.2.4. Differences in management philosophy 1.2.5. Inability and reluctance to communicate 1.2.6. Mafia power		
	0	0
2.1.1. Hostilities with neighboring country or region 2.1.2. Poor international relations 2.1.3. War 2.1.4. Terrorism		
	0	0

2.2.1. Political continuity 2.2.2. Political corruption 2.2.3. Fractionalization by language, ethnic and regional groups 2.2.4. Mentality, including nationalism, corruption and dishonesty 2.2.5. Societal conflicts (e.g. demonstrations, strikes and street violence) public unrest 2.2.6. Coup d'etat (coup)	0	0
2.3.1. Negative attitude towards foreign investors 2.3.2. Nationalization/Expropriation 2.3.3. Government subsidy for foreign investors 2.3.4. Government act and regulations (unclear, negative, possible to change) 2.3.5. Restrictions to scope of engineering activities for foreign entrants 2.3.6. Lack of recognition given to the construction grade and certifications 2.3.7. Protectionism/local preference 2.3.8. Political arrests and expulsions 2.3.9. Custom regulations 2.3.10. Government reluctance or inability to implement policies 2.3.11. Corporate taxes	0	0
3.1.1. Bureaucratic delays 3.1.2. Progress payment delay 3.1.3. Site handover delay 3.1.4. Delay in design and regulatory approvals 3.1.5. Lack of coordination and communication with the client organizations 3.1.6. Lack of data and/or delay in the delivery of necessary project information		

3.1.7. Possibility of frequent change orders of the client 3.1.8. Uncertainty about lines of responsibility and decision making procedures 3.1.9. Lack or inaccessibility of business support mechanisms/professional services related with construction 3.1.10. Conflicts between the private business interests and the state bureaucracy 3.1.11. Custom delays	0	0
3.2.1. Unavailability of construction materials 3.2.2. Unavailability of professional local contractors/subcontractors 3.2.3. Unavailability of skilled workers 3.2.4. Unavailability of unskilled workers 3.2.5. Unavailability of equipment and parts 3.2.6. Lack of infrastructure (telecommunication, power supply, transportation, etc.) 3.2.7. Unconformity of imported materials with host country practice 3.2.8. Unavailability of repair and maintenance services of equipments 3.2.9. Unavailability of spare parts 3.2.10. Lack of enough knowledge about construction technologies 3.2.11. Industrial relations	0	0
3.3.1. Poor quality of local contractors 3.3.2. Poor quality of locally available materials 3.3.3. Poor quality of locally available equipments 3.3.4. Poor quality of skilled personnel 3.3.5. Poor communication skills of technical staff 3.3.6. Low labor productivity	0	0

3.4.1. Fluctuation of cost of construction services (subcontractor, designer, consultancy) 3.4.2. Fluctuation of labor cost 3.4.3. Fluctuation of material cost 3.4.4. Fluctuation of equipment cost	0	0
3.5.1. Climate constraints/restrictions 3.5.2. Geological and geographical conditions 3.5.3. Problems in technology transfer and implementation 3.5.4. Problems in site security	0	0
4.1.1. Unclearity 4.1.2. Lack of maturity 4.1.3. Complexity 4.1.4. Possibility to change 4.1.5. Lack of enforceability 4.1.6. Interpretation	0	0
4.2.1. Enforceability of construction contracts 4.2.2. Procedure for bidding 4.2.3. Types of bidding (differences in interpretation) 4.2.4. Lack of transparency in bidding process 4.2.5. Types of contracts 4.2.6. Lack of standardization in format of contract document		

4.2.7. Lack of clarity of contractual regulations 4.2.8. Lack of legality and standard dispute settlement procedure 4.2.9. Delay in dispute resolution mechanisms	0	0
4.3.1. Design specifications 4.3.2. Construction codes 4.3.3. Material standards 4.3.4. Technical specs/standards 4.3.5. Environment requirements 4.3.6. Health and safety requirements 4.3.7. Strict quality requirements 4.3.8. Licenses and permits 4.3.9. Restricting foreign assets 4.3.10. Travel restrictions (problems in movement of personnel, visa restrictions) 4.3.11. Strict importation restrictions of 4.3.12. Problems for repatriation of capital 4.3.13. Currency restrictions 4.3.14. Differences in accounting principles/terms of financing 4.3.15. Force majeure	0	0
5.1. Government shortage of financial resources 5.2. Unavailability of funds/financing for construction projects 5.3. Tax issues (tax/nontax incentives in construction industry and tax discrimination) 5.4. Difficulty in finding credits		

5.5. High insurance premiums 5.6. Problems with local banking system		
	0	0
6.1. General state of economy (economic crisis) 6.2. Inflation 6.3. Deflation 6.4. Currency fluctuation 6.5. Interest rate increase		
	0	0

COUNTRY RISK SPECIFIC TO CONSTRUCTION MARKET	Risk Rating: 0,0 %		
1.CULTURAL RISKS	Importance weight 0		Rating: 0,0 %
1.1. Structure of the country	0		**Rating:** 0,0 %
	Importance weight	**Rating**	**Rating**
1.1.1. Religion	0,000		0,00
1.1.2. Language barrier	0,000		0,00
1.1.3. Negative attitudes of the general public towards foreign contractors	0,000		0,00
1.1.4. Difference in traditions	0,000		0,00
1.1.5. Cultural corruption	0,000		0,00
1.1.6. Discrimination of	0,000	0	0,00
1.1.6.1. Gender			
1.1.6.2. Race			
1.2. Working culture of the country	0		**Rating:** 0,0 %
	Importance weight	**Rating**	**Rating**
1.2.1. Lack of written contractual documents (preference of oral commitments)	0,000		0,00
1.2.2. Bribery (in the host country)	0,000		0,00
1.2.3. Nepotism and overvalue of relationship	0,000		0,00
1.2.4. Differences in management philosophy	0,000		0,00

1.2.5. Inability and reluctance to communicate	0,000		0,00	
1.2.6. Mafia power	0,000		0,00	
2. POLITICAL RISKS	Importance weight 0		**Rating:** 0,0	%
2.1. Government relations	0		**Rating:** 0,0	%
	Importance weight	**Rating**	**Rating**	
2.1.1. Hostilities with neighboring country or region	0,000		0,00	
2.1.2. Poor international relations	0,000		0,00	
2.1.3. War	0,000		0,00	
2.1.4. Terrorism	0,000		0,00	
2.2. Structure of the host country	0		**Rating:** 0	%
	Importance weight	**Rating**	**Rating**	
2.2.1. Political continuity	0,000		0,00	
2.2.2. Political corruption	0,000		0,00	
2.2.3. Fractionalization by language, ethnic and regional groups	0,000		0,00	
2.2.4. Mentality, including nationalism, corruption and dishonesty	0,000		0,00	
2.2.5. Societal conflicts (e.g. demonstrations, strikes and street violence) public unrest	0,000		0,00	
2.2.6. Coup d'etat (coup)	0,000		0,00	

2.3. Government policies	0		**Rating:** 0,0 %
	Importance weight	**Rating**	**Rating**
2.3.1. Negative attitude towards foreign investors	0,000		0,00
2.3.2. Nationalization/Expropriation	0,000		0,00
2.3.3. Government subsidy for foreign investors	0,000		0,00
2.3.4. Government act and regulations (unclear, negative, possible to change)	0,000		0,00
2.3.5. Restrictions to scope of engineering activities for foreign entrants	0,000		0,00
2.3.6. Lack of recognition given to the construction grade and certifications	0,000		0,00
2.3.7. Protectionism/local preference	0,000		0,00
2.3.8. Political arrests and expulsions	0,000		0,00
2.3.9. Custom regulations	0,000		0,00
2.3.10. Government reluctance or inability to implement policies	0,000		0,00
2.3.11. Corporate taxes	0,000		0,00
	Importance weight		
3. CONSTRUCTION MARKET RISKS	0		**Rating:** 0,0 %
3.1. Administration	0		**Rating:** 0,0 %
	Importance weight	**Rating**	**Rating**
3.1.1. Bureaucratic delays	0,000		0,00
3.1.2. Progress payment delay	0,000		0,00

3.1.3. Site handover delay	0,000		0,00
3.1.4. Delay in design and regulatory approvals	0,000		0,00
3.1.5. Lack of coordination and communication with the client organizations	0,000		0,00
3.1.6. Lack of data and/or delay in the delivery of necessary project information	0,000		0,00
3.1.7. Possibility of frequent change orders of the client	0,000		0,00
3.1.8. Uncertainty about lines of responsibility and decision making procedures	0,000		0,00
3.1.9. Lack or inaccessibility of business support mechanisms/professional services related with construction	0,000		0,00
3.1.10. Conflicts between the private business interests and the state bureaucracy	0,000		0,00
3.1.11. Customs delays	0,000		0,00
3.2. Resources	0		**Rating:** 0,0 %
	Importance weight	**Rating**	**Rating**
3.2.1. Unavailability of construction materials	0,000		0,00
3.2.2. Unavailability of professional local contractors/subcontractors	0,000		0,00
3.2.3. Unavailability of skilled workers	0,000		0,00
3.2.4. Unavailability of unskilled workers	0,000		0,00
3.2.5. Unavailability of equipment and parts	0,000		0,00
3.2.6. Lack of infrastructure (telecommunication, power supply, transportation, etc.)	0,000		0,00
3.2.7. Unconformity of imported materials with host country practice	0,000		0,00
3.2.8. Unavailability of repair and maintenance services of equipments	0,000		0,00
3.2.9. Unavailability of spare parts	0,000		0,00
3.2.10. Lack of enough knowledge about construction technologies	0,000		0,00

3.2.11. Industrial relations	0,000		0	0,00
3.2.11.1. Power of trade unions				
3.2.11.2. Local labor relations				
3.3. Quality	0		**Rating:**	0,0 %
	Importance weight	**Rating**	**Rating**	
3.3.1. Poor quality of local contractors	0,000		0,00	
3.3.2. Poor quality of locally available materials	0,000		0,00	
3.3.3. Poor quality of locally available equipments	0,000		0,00	
3.3.4. Poor quality of skilled personnel	0,000		0,00	
3.3.5. Poor communication skills of technical staff	0,000		0,00	
3.3.6. Low labor productivity	0,000		0,00	
3.4. Costs	0		**Rating:**	0,0 %
	Importance weight	**Rating**	**Rating**	
3.4.1. Fluctuation of cost of construction services (subcontractor, designer, consultancy)	0,000		0,00	
3.4.2. Fluctuation of labor cost	0,000		0,00	
3.4.3. Fluctuation of material cost	0,000		0,00	
3.4.4. Fluctuation of equipment cost	0,000		0,00	
3.5. Restrictions/Constraints	0		**Rating:**	0 %
	Importance weight	**Rating**	**Rating**	
3.5.1. Climate constraints/restrictions	0,000		0,00	
3.5.2. Geological and geographical conditions	0,000		0,00	
3.5.3. Problems in technology transfer and implementation	0,000		0,00	

3.5.4. Problems in site security	0,000		0,00
4. LEGAL RISKS	Importance weight 0		**Rating:** 0,0 %
4.1. Legislative System and Laws	0		**Rating:** 0,0 %
	Importance weight	**Rating**	**Rating**
4.1.1. Unclearity	0,000		0,00
4.1.2. Lack of maturity	0,000		0,00
4.1.3. Complexity	0,000		0,00
4.1.4. Possibility to change	0,000		0,00
4.1.5. Lack of enforceability	0,000		0,00
4.1.6. Interpretation	0,000		0,00
4.2. Bidding and Contractual Arrangements	0		**Rating:** 0,0 %
	Importance weight	**Rating**	**Rating**
4.2.1. Enforceability of construction contracts	0,000		0,00
4.2.2. Procedure for bidding	0,000		0,00
4.2.3. Types of bidding (differences in interpretation)	0,000		0,00
4.2.4. Lack of transparency in bidding process	0,000		0,00
4.2.5. Types of contracts	0,000		0,00
4.2.6. Lack of standardization in format of contract document	0,000		0,00
4.2.7. Lack of clarity of contractual regulations	0,000		0,00
4.2.8. Lack of legality and standard dispute settlement procedure	0,000		0,00
4.2.9. Delay in dispute resolution mechanisms	0,000		0,00

4.3. Requirements, Regulations and Restrictions	0		Rating: 0,0 %
	Importance weight	Rating	Rating
4.3.1. Design specifications	0,000		0,00
4.3.2. Construction codes	0,000		0,00
4.3.3. Material standards	0,000		0,00
4.3.4. Technical specs/standards	0,000		0,00
4.3.5. Environment requirements	0,000		0,00
4.3.6. Health and safety requirements	0,000		0,00
4.3.7. Strict quality requirements	0,000		0,00
4.3.8. Licenses and permits	0,000		0,00
4.3.9. Restricting foreign assets	0,000		0,00
4.3.10. Travel restrictions (problems in movement of personnel, visa restrictions)	0,000		0,00
4.3.11. Strict importation restrictions of	0,000	0	0,00
4.3.11.1. Labor			
4.3.11.2. Material			
4.3.11.3. Equipment/spare parts			
4.3.12. Problems for repatriation of capital	0,000		0,00
4.3.13. Currency restrictions	0,000		0,00
4.3.14. Differences in accounting principles/terms of financing	0,000		0,00
4.3.15. Force majeure	0,000		0,00

5. FINANCIAL RISKS	Importance weight 0		Rating: 0,0 %
	Importance weight	**Rating**	**Rating**
5.1. Government shortage of financial resources	0,000		0,00
5.2. Unavailability of funds/financing for construction projects	0,000		0,00
5.3. Tax issues (tax/nontax incentives in construction industry and tax discrimination)	0,000		0,00
5.4. Difficulty in finding credits	0,000		0,00
5.5. High insurance premiums	0,000		0,00
5.6. Problems with local banking system	0,000		0,00
6. ECONOMIC RISKS	Importance weight 0		Rating: 0,0 %
	Importance weight	**Rating**	**Rating**
6.1. General state of economy (economic crisis)	0,000		0,00
6.2. Inflation	0,000		0,00
6.3. Deflation	0,000		0,00
6.4. Currency fluctuation	0,000		0,00
6.5. Interest rate increase	0,000		0,00