

**STRATEGIC PLANNING FOR TURKISH CONTRACTING COMPANIES
IN THE FORMER SOVIET UNION**

by

EMRAH ERGELEN

B.Eng. with Honours, Civil Engineering
University of Nottingham, 1993

Submitted to the Department of Civil and Environmental Engineering
in Partial Fulfillment of the Requirements for the Degree of

**MASTER OF SCIENCE IN CIVIL
AND ENVIRONMENTAL ENGINEERING**

at the

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

February 1995

© 1995 Emrah Ergelen. All rights reserved.

The author hereby grants to MIT permission to reproduce and to distribute
publicly paper and electronic copies of this thesis document in whole or in part.

Signature of Author
Department of Civil and Environmental Engineering
January 18, 1995

Certified by.....
Charles H. Helliwell, Jr.
Senior Lecturer, Center for Construction Research and Education
Thesis Supervisor

Accepted by.....
Joseph M. Sussman
Chairman, Departmental Committee on Graduate Studies

MAR 07 1995

**STRATEGIC PLANNING FOR TURKISH CONTRACTING COMPANIES
IN THE FORMER SOVIET UNION**

by

EMRAH ERGELEN

Submitted to the Department of Civil and Environmental Engineering
on January 18, 1995 in partial fulfillment of the requirements for the Degree of
Master of Science in Civil and Environmental Engineering

ABSTRACT

International construction environment is getting more competitive as number of players is increasing. Contractors from developing countries are intensifying the rivalry against contractors from developed countries. This thesis carries out a strategic planning process for Turkish contracting companies that are operating in the former Soviet Union, in order to position them strategically in this highly competitive market.

Firstly, characteristics of Turkish contracting companies are analyzed, mainly using results of a questionnaire, which was completed by 20 Turkish firms. Hence, their unique competencies, strengths and weaknesses are identified. Then, the construction industry environment in the former Soviet Union is examined. Five forces framework and market segmentation are used to assess the attractiveness of the construction industry in some of the former Soviet republics. Also, contracting companies from USA, UK, Italy, Germany, Japan, France and Finland - that are operating in the former Soviet Union - are analyzed with regard to different criteria, and are compared to Turkish firms.

Finally, competitive strategies are proposed for Turkish contracting companies. Geographical diversification by forming strategic alliances, and vertical integration into design/engineering and financing of projects are advised. Also, maintaining their specialized status in terms of market segments, and seeking for more government support are proposed.

Thesis Supervisor: Charles H. Helliwell, Jr.

Title: Senior Lecturer, Center for Construction Research and Education

TABLE OF CONTENTS

	PAGE
TITLE PAGE.....	1
ABSTRACT.....	2
TABLE OF CONTENTS.....	3
LIST OF FIGURES.....	5
ACKNOWLEDGMENTS.....	7
1. INTRODUCTION.....	9
1.1. International Construction Environment.....	9
1.2. Research Methodology.....	16
2. TURKEY AND ITS CONSTRUCTION INDUSTRY.....	20
2.1. Overview of Turkey's Political and Economic Situation.....	20
2.2. Construction Industry in Turkey.....	26
2.3. Turkish Contracting Companies Operating in the Former Soviet Union	32
2.3.1. Identification of Product-, Market- and Geographic Scopes... 32	
Product Scope.....	34
Market Scope.....	35
Geographic Scope.....	37
2.3.2. Analysis of Unique Competencies, Strengths and Weaknesses	39
Unique Competencies.....	41
Strengths.....	43
Weaknesses.....	45
3. FORMER SOVIET UNION MARKETS.....	51
3.1. Political and Economic Situation of the former Soviet Union Republics	51
3.2. Construction Industry in the Russian Federation and Other Republics... 59	
3.2.1. Overview of the Construction Industry Structure.....	59
3.2.2. Analysis of Construction Industry Attractiveness.....	63
3.2.2.1. Five Forces Framework.....	63
Power of Buyers.....	63
Power of Suppliers.....	65
Intensity of Rivalry.....	68
Threat of New Entrants.....	69

Threat of Substitutes.....	69
3.2.2.2. Market Segmentation.....	72
Housing Construction.....	73
Commercial and Tourism Segments.....	75
Industrial Construction.....	76
3.2.3. Classification of Competitors in the former Soviet Union.....	77
4. STRATEGY FORMULATION.....	91
4.1. Current Strategies Pursued by Turkish Contracting Companies.....	91
4.2. Strategy Formulation for Turkish Contracting Companies.....	95
4.2.1. Broad Strategies.....	95
Geographic Scope.....	95
Specialization.....	97
Vertical Integration.....	98
Low Cost/Differentiation.....	99
4.2.2. Specific Action Programs.....	100
5. CONCLUSIONS.....	104
APPENDIX.....	108
BIBLIOGRAPHY.....	113

TABLE OF FIGURES

FIGURE	PAGE
1.1	Total Value of International Contracts awarded to Top International Contractors..... 11
1.2	Regional Distribution of International Contracts..... 13
1.3	Distribution of International Contracts by Origin of Contractors..... 15
1.4	Contracts undertaken by surveyed Turkish Firms as a percentage of Total Contracts undertaken by all Turkish Firms..... 18
2.1	Map of Turkey..... 21
2.2	Summary of Basic Data about Turkey..... 22
2.3	Turkey's GNP per head..... 23
2.4	Sectoral Contribution to GDP - Turkey..... 24
2.5	Sectoral Contribution to Exports - Turkey..... 25
2.6	Construction Permits given by Municipalities..... 28
2.7	Construction Industry's share in GNP..... 29
2.8	All International Contracts undertaken by Turkish Contractors - Distribution by Location of Contracts..... 31
2.9	Turkish Contractors in the former Soviet Union - Year of Establishments... 33
2.10	Turkish Contractors in the former Soviet Union - Revenues in 1993..... 33
2.11	Turkish Contractors in the former Soviet Union - Product Scope..... 34
2.12	Turkish Contractors in the former Soviet Union - Contract Organization... 35
2.13	Turkish Contractors in the former Soviet Union - Market Scope..... 36
2.14	Turkish Contractors in the former Soviet Union - Distribution of Contracts in FSU by Client Type..... 37
2.15	Turkish Contractors in the former Soviet Union - Geographic Scope..... 38
2.16	Turkish Contractors in the former Soviet Union - Contract Types..... 40
2.17	Turkish Contractors in the former Soviet Union - Distribution of Construction Materials used by Country of Origin..... 42
2.18	Credits given by Turkish Eximbank to Central Asian Republics of the FSU. 46
2.19	Strengths and Weaknesses of Turkish Contracting Companies in the former Soviet Union - Self Evaluation by Surveyed Company Managers..... 50

3.1	Map of former Soviet Union Republics.....	54
3.2	Basic Data about former Soviet Union Republics.....	55
3.3	Former Soviet Union Republics - GDP in 1993.....	60
3.4	Former Soviet Union Republics - GDP per capita in 1993.....	60
3.5	Construction Industry Value System in the FSU.....	62
3.6	Five Forces Framework.....	64
3.7	Trend of Construction Industry in Russia.....	65
3.8	Cement Production in the Russian Federation.....	66
3.9	Price of Common Brick in Russia.....	67
3.10	Construction Industry Attractiveness in the FSU.....	70
3.11	Construction Industry Attractiveness in the FSU - Opinion of Turkish Contractors.....	71
3.12	Sectoral Distribution of Total Construction Investments in Russia, 1990.....	72
3.13	Housing Need in Russia until 2000 - by Regions.....	74
3.14	Top International Contractors in the former Soviet Union - Average Value of International Contracts.....	79
3.15	Top International Contractors in the former Soviet Union - Average Value of Total Contracts.....	79
3.16	Top International Contractors in the former Soviet Union - 1991.....	80
3.17	Top International Contractors in the former Soviet Union - 1992.....	81
3.18	Top International Contractors in the former Soviet Union - 1993.....	82
3.19	Top International Contractors in the former Soviet Union - 1991.....	84
3.20	Top International Contractors in the former Soviet Union - 1992.....	85
3.21	Top International Contractors in the former Soviet Union - 1993.....	86
3.22	Top International Contractors in the former Soviet Union - Design Capability.....	88
4.1	Turkish Contracting Companies in the former Soviet Union - Strategic Planning Processes.....	92
4.2	Turkish Contractors in the former Soviet Union - Strategies Pursued.....	93
4.3	Value System of the Construction Industry.....	99

ACKNOWLEDGMENTS

During the completion of this thesis, several people helped me in various ways to proceed with the work. My special thanks go to the following people:

Charles H. Helliwell, my thesis supervisor, for his valuable guidance, advice and useful comments on drafts of this thesis;

Oktay Varlier and Celal Tatlicibasi of Alsim Alarko Industrial Plants and Trade, Inc.,

Oktay Yavuz and Ergin Tansug of Baytur Construction and Contracting, Inc.,
Tayfun Uzunova and Lale Biçe of Borova Building Industry, Inc.,
Temiz Üstün and San Gürdamar of Enka Construction and Industry, Inc.,
Teoman Arica and Emre Bozok of Entes Industrial Plants Manufacturing & Erection Contracting, Inc.,

Seref Senoguz and Hakan B. of EMT Erimtan Consulting,
Ugur Yurdakul of Gama Industrial Plants Manufacturing and Erection, Inc.,
Ertan Tüz and Levent Aytekin of İdil Construction Trade, Inc.,
Rayhan Ülvan of Mensel JV,
Bülent Bingöl of Mesa Housing Industries, Inc.,
Engin Tanören of MİR Contracting and Trade, Inc.,
Semir Sonuvar and Bekir Kandemir of Pakpas Design, Engineering, Contracting, Manufacturing and Trade, Inc.,

Üstün Aydınalp of STFA Alfa Construction, Inc.,
Sedat Özyürek of Soyak International Construction and Investment, Inc.,
Mustafa Alper and Hikmet Barkin of Tekfen Construction and Installation, Inc.,
Erdogan Durakbasa and Tolgay B. of Tekser Construction Industry and Trade, Inc.,

Baran Asena and Hürriyet B. of Tepe Wood and Metal Construction Industries, Inc.,

Yücel Koçak and Erol Alp of Turan Hazinedaroglu Construction Trade, Inc.,
Haluk Kaya of Üçgen Construction and Trade, Inc.
Basar Arioglu of Yapi Merkezi Construction and Industry, Inc.

for completing the questionnaire and providing me with information about their companies, on which this thesis was built;

Dr. Zeynep Sözen, of Istanbul Technical University, for supplying me with useful information about international contracting in Turkey;

Dr. Valery Didkovsky and Dr. Svetlana Tabakova, of Co-Invest, for providing me with useful information about the construction industry in the Russian Federation;

Molly Shonka, of National Governors' Association (NGA), for supplying me with useful information about the industries in the Russian Federation;

Yılmaz Gürer, of Union of Turkish Contractors (TMB), for providing me with useful information about Turkish contracting companies;

Mehmet Karabay, of Prime Ministry - Advisory Unit for International Contracting Services, for supplying me with useful information about Turkish contracting services abroad;

Mehmet Emre Çamlıbel for reviewing and making useful comments on drafts of this thesis;

İlhan Sefer and Turan for providing me with necessary 'connections';

İlhan Sefer, Çigdem, Elif and Eda for continuously motivating me to proceed with the work.

CHAPTER 1

INTRODUCTION

In this chapter, firstly an overview of the international construction environment in the last decade will be given. Then, the research methodology which is used in this thesis will be explained.

1.1 INTERNATIONAL CONSTRUCTION ENVIRONMENT

The origin of international contracting - e.g. companies from one country constructing under a contract in another country - dates back to the mid 19th century. After the French built the Suez Canal in the Middle East during 1860's, the Germans constructed the 1200 mile long Ankara-Baghdad railway at the turn of the century. During the 1910's the Americans completed the Panama Canal, while they were building hydroelectric power stations and petroleum refineries around the world¹.

After the 1950's, reconstruction and development needs of some Colonial states in Africa and Asia emerged as the first international contracting market. Since loans were available to these countries, they initiated large-scale infrastructure and industrial projects. Because local construction companies were not able to undertake such projects, contractors from developed countries, such as North America and Western Europe, were the only candidates for these. During the 1960's, international contractors were heavily dependent on domestic work, since international construction demand was yet too low.

At the beginning of the 1970's oil producing Middle Eastern and North African countries experienced rapidly increasing revenues, mainly due to the oil price boom. This

¹ Strassmann and Wells. 1988. p.2.

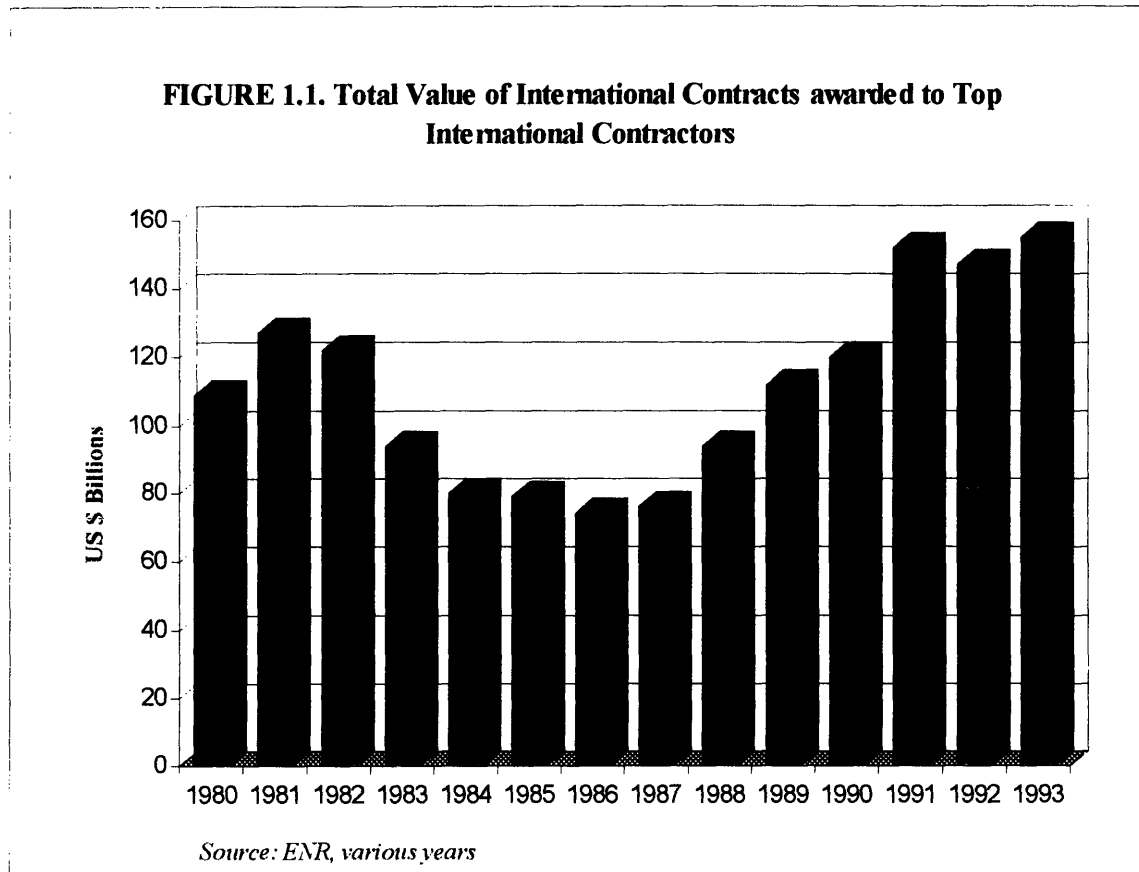
surplus was spent to develop their infrastructures, where contractors from developed countries at the beginning took a large portion of such contracts. However, in the late 1970's and early 1980's contractors from developing countries, such as South Korea, Brazil, Turkey, India and Pakistan, started to enter these oil rich Middle Eastern and North African markets. Especially in projects requiring little technical expertise, these contractors were very successful due to their relatively lower bids than their counterparts from developed countries. In such projects price was the main criterion for public clients. Since contracting companies from developing countries were bringing their entire construction teams - including unskilled labor - , they took advantage of significantly lower wage rates². Given this situation, American and West European contractors could not compete in such a price driven environment. During that time several international contractors were highly dependent on overseas work, as contrast to the previous decade.

The increase in international construction demand continued until 1982, when dramatic decrease in oil prices was accordingly followed by a decrease in contracts in the Middle East. The fact that most of the infrastructure of oil rich countries were completed was another reason for the decrease in the regional demand. In addition, Latin American countries were having increasing financial problems, thus requiring them to cut back the total amount of contracts awarded in the late 1970's. Combined with the worldwide economic recession, the international construction demand decreased significantly during the mid 1980's. (See Figure 1.1)

The decreased demand with more international players, both from developed and developing countries, increased the competition significantly. Thus profit margins fell dramatically, and the industry structure moved from only price-driven status. Political links between home and host governments, ability of contractors to provide project

² Seymour. 1987, p.2.

financing and government's support to their contractors became very important decision criteria for the clients when choosing contractors.



As a result of a changing environment international contractors changed their strategies, too. Some of them integrated horizontally into non-construction activities keeping their construction operations, whereas others expanded geographically into new markets. After 1985, international construction work in North America and Western Europe experienced a significant increase due to the fact that contractors from such developed countries were focusing on international work in other developed countries. (See Figure 1.2) Examples for these are (1) Europeans and Japanese contractors in the

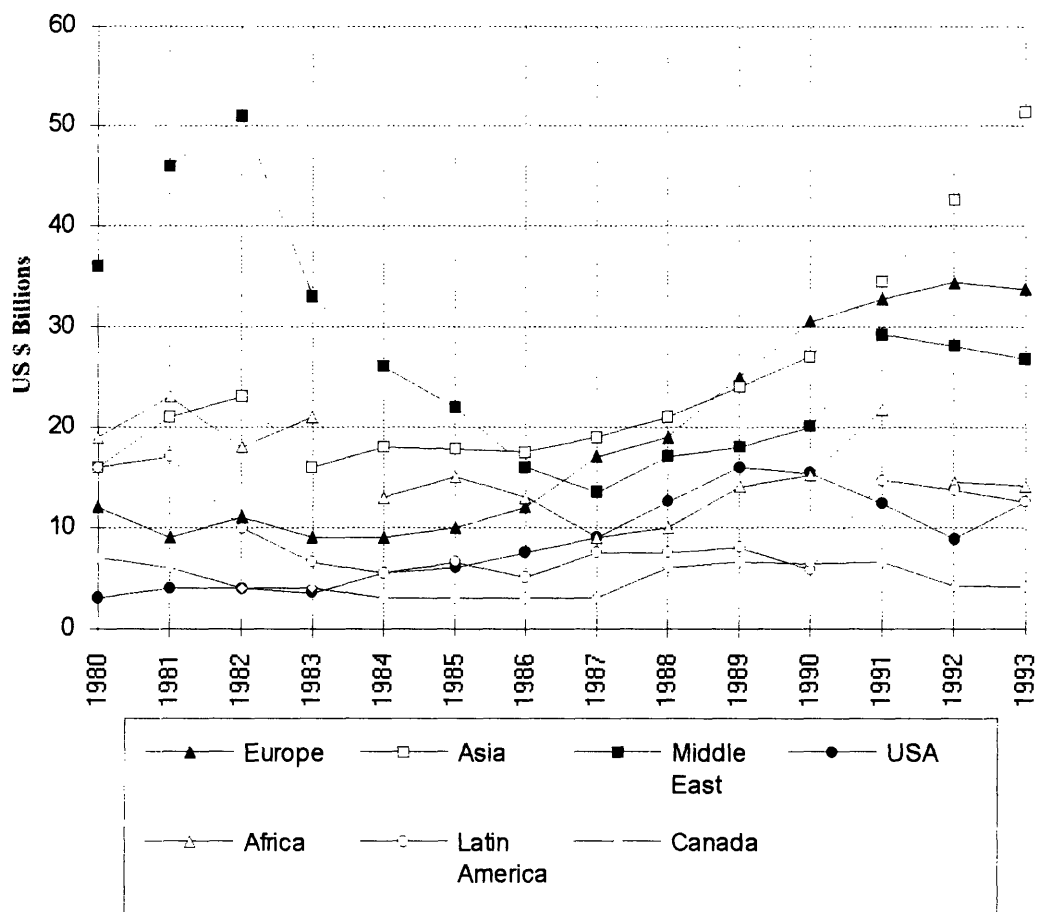
US market, and (2) Japanese, American and European contractors in the European market. These contractors were mainly developing and financing their own projects.

Looking at Figure 1.1, we can see that between 1988 and 1993, total international contracts have increased steadily. This, however, is mainly due to the increases of international work only in Asia and Europe. Asia, with Taiwan, Thailand, Singapore, Malaysia, Indonesia, and lately with China and Vietnam, has been the hottest market in international contracting over the past 5 years. Total international contracts in this region grew from \$21 billion in 1988 to \$51.4 billion in 1993, an increase of 142%. Europe was the second reason behind, with Eastern European countries and newly independent states of C.I.S. (Commonwealth of Independent States). In spite of huge need for construction of housing and industrial facilities, financing problems and political instability in these countries have delayed the expected international construction boom.

Although the international market in the Middle East started to recover from its low position in mid 1980's, the Gulf War in 1991 was a major turning point for this region. (See Figure 1.2) Total overseas contracts in the region increased steadily from \$18 billion in 1988 to \$29.3 billion in 1991, but decreased to \$26.8 billion in 1993. With the effects of the Gulf War behind them, and promising peace talks between Israel, Jordan and the Palestinians, some important reconstruction and irrigation projects might be expected in the near future.

Africa had a very similar trend to Middle East between 1988-93, however international contracts in North America dropped during the same period. Economic recession in Canada and the United States was probably the main reason behind this drop. Latin America, with its diminishing financial problems, experienced a significant increase in 1991, which has leveled off later in 1992-93. However, with the initiation of North American Free Trade Agreement, international contracts, especially in Mexico, are expected to increase rapidly.

FIGURE 1.2. Regional Distribution of International Contracts



Source: ENR, various years

Finally, examining the trends of different nations' contractors, we can see that the success of contractors from developing countries in the late 1970's and early 1980's (which was discussed above) did not continue. The main reason behind this was that these contractors were not diversified geographically. Good examples are South Korean and Turkish contractors, which have focused on the Middle East market. 77.5% of total

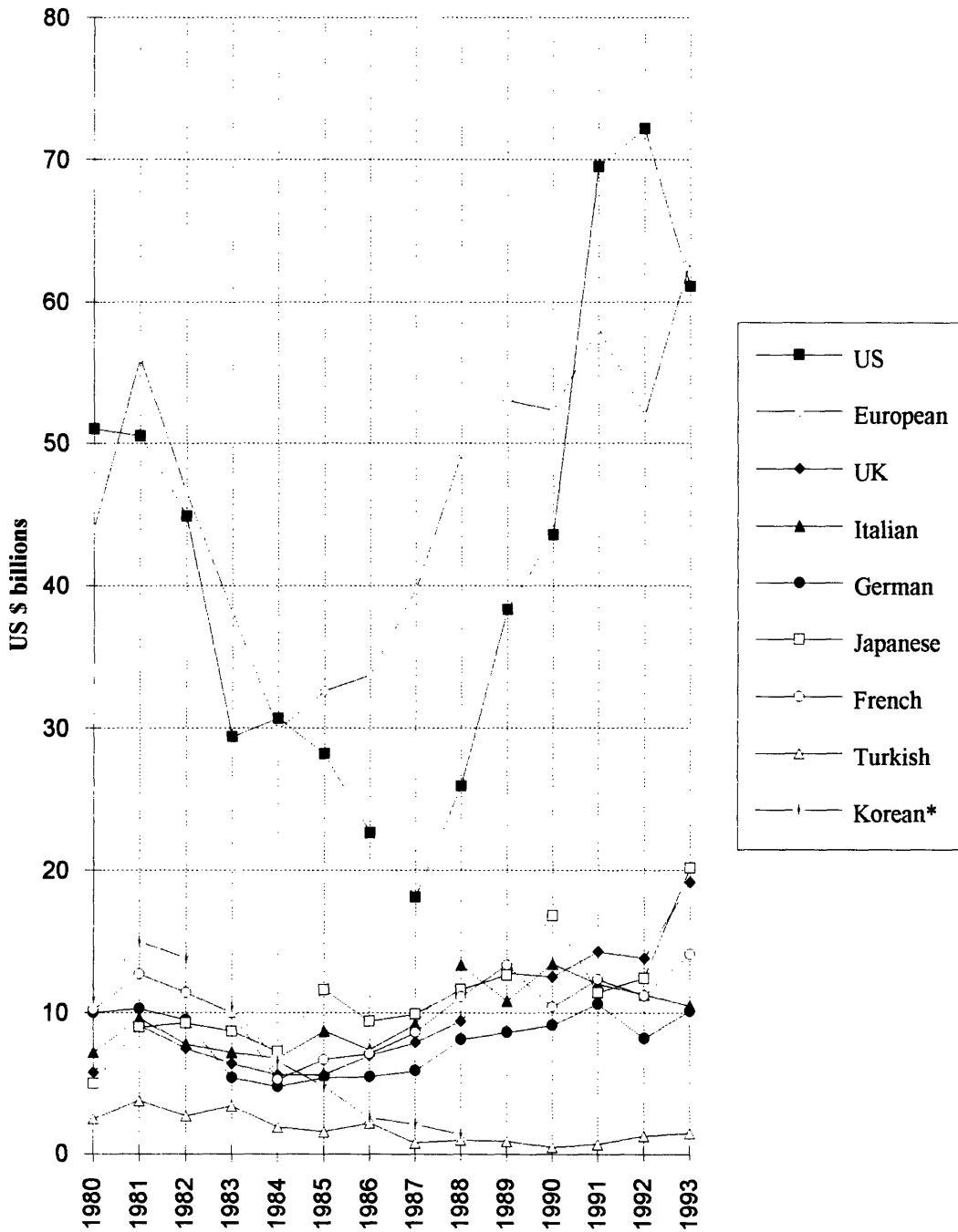
international contracts undertaken by South Korean contractors were located in the Middle East in 1982. Turkish contractors had a similar figure of 70.3%³. Thus, when the Middle East market dropped dramatically after 1983, these contractors had major difficulties in finding new markets. Looking at Figure 1.3, one can see that total international contracts undertaken by Koreans dropped dramatically from \$15 billion in 1981 to \$2.6 billion in 1986. Although the contractors from developed countries, such as North America, Europe and Japan, were also hit by the drop in the Middle East market, they were able to expand their activities to markets in the developed countries, mainly due to their technical superiority over developing countries' contractors.

Between 1987 and 1993, total overseas contracts carried out by American firms increased notably from \$18.1 billion to \$61.1 billion. (See Figure 1.3) The main strategy behind this success appears to be their focus on Asian markets - 17% of total overseas projects undertaken by US firms were located in Asia in 1988, where this figure increased steadily to a peak of 36% in 1993. As a result, almost half of the international contracts in Asia in 1993 were awarded to American contractors. West European contractors as a whole were awarded the largest share of total international contracts between 1985 and 1993, except during 1991-92 when US firms overtook them. Looking at the West Europeans on a country basis, their overseas contracts fluctuated the range of \$6-15 billion per year. Japanese firms, similar to their American peers, increased their focus on the Asian market from 51% in 1988 to 71% in 1993. However, their market share in the global construction industry did not increase as steeply as the share of American firms.

Finally, although Turkish contractors share varied slightly in the range of \$0.5-1 billion between 1988 and 1993, their focus changed from Middle East market to Europe, mainly to Russia and other former Soviet Union republics. Although their share in

³ ENR, July 21, 1983.

FIGURE 1.3. Distribution of International Contracts by the Origin of Contractor



Source: ENR, various years * No data is available for Korean contractors after 1988

international construction has been significantly small compared to US, European and Japanese firms, they are in a position to capture a larger market share in the former Soviet Union. Geographical proximity, cultural and religious links to Central Asian republics, low-cost differentiation, as well as their focus on specific market segments, are examples of their main competitive advantages. But are they really able to improve their competitive positions in the short term, and sustain it in the long term?

Chapter 2 will analyze the services Turkish contractors offer, market segments and geographical areas they operate in, as well as identify their unique competencies, strengths and weaknesses relative to foreign competitors. Chapter 3 will assess the attractiveness of the construction industries in the Russian Federation and the other former Soviet Union republics, using Porter's 'five forces framework' and market segmentation. It will also assess the characteristics of the foreign contractors operating in the region. Chapter 4 will formulate strategies for Turkish contracting companies, using the analyses from Chapters 2 and 3. Finally, Chapter 5 will have some conclusions about the general findings.

1.2 RESEARCH METHODOLOGY

As the main focus of this thesis is Turkish contracting companies that are operating in the former Soviet Union, it was crucial to get detailed information about their characteristics, e.g. product, market and geographic scopes as well as unique competencies, strengths and weaknesses. In order to do that, a questionnaire was prepared to be submitted to those companies. The questionnaire had two sections: Section A contained questions about the general internal characteristics of the company, whereas Section B focused entirely on the company's operations in the former Soviet Union. The latter section also had questions regarding the construction industry structures in the former Soviet Union republics, in order to get a sense of how the

company managers see the existing and future external environment. A copy of the questionnaire is included in the Appendix.

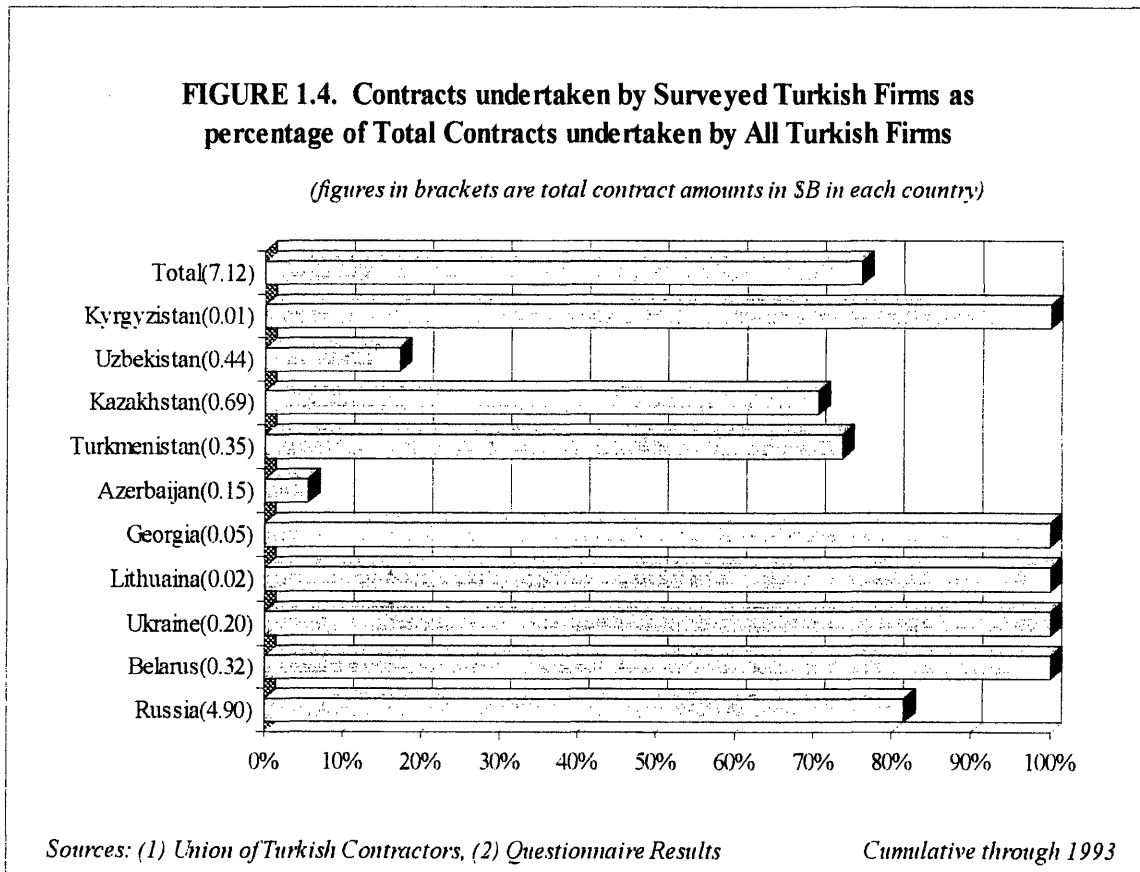
Having prepared the questionnaire, the contracting companies that were operating in the former Soviet Union, were identified. Lists published by the Union of Turkish Contractors (TMB) and the Union of International Contractors (UMB) were used in this process. Also reports prepared by the Foreign Economic Relations Board of Turkey (DEIK) were useful for identifying these companies. As a result, 29 Turkish contracting companies were identified, with 28 of them registered to the Union of Turkish Contractors.

Following the advice taken from several managers of these companies, the questionnaire was not mailed to the companies. Instead, these companies were personally visited by the author of this thesis. The reason behind this was that only very few companies would complete and return the questionnaires - a reasonable return rate of 15% was expected. So, out of 29 companies, this would reduce the survey sample to 4 companies. Obviously, no reliable conclusions could have been drawn from a survey with such a small sample size.

In July and August 1994, 19 Turkish contracting companies were personally visited and given the questionnaire. 13 of them were located in Istanbul, and the rest in Ankara, the capital of Turkey. Another company in Istanbul was reached via phone conversation, and the questionnaire was submitted through telefax. Out of the total 20 companies contacted, only one of them was not registered to the Union of Turkish Contractors. Regarding the persons who completed the questionnaire, 4 of them were owners/partners, 11 of them were members of top management, such as Vice Presidents of Operations, Tender Evaluation Managers, Technical Group Managers, etc. The remaining 5 persons were members of project teams, like project managers and project engineers. Therefore, their high level status in their organizational structures assured that

the answers given reflected companies' overall characteristics and strategies, rather than the ones only related to specific projects.

As a result 20 companies completed and returned the questionnaire. The total contracts undertaken by these 20 companies corresponds to 76% of all the contracts undertaken by all Turkish contracting companies in the former Soviet Union Republics. This high percentage assures that reliable conclusions can be drawn using the data obtained from this survey. Figure 1.4 shows the contracts undertaken by surveyed companies as a percentage of total contracts undertaken by all Turkish contracting companies in each of the former Soviet Union republics.



In order to interpret the data in the completed questionnaire, averages of answer given by 20 firms are taken. Also, where necessary standard deviations of the distributions are calculated, in order to look for dissimilarities between the 20 Turkish contracting companies that completed the questionnaire. Results are presented mostly in graphical form, and conclusions are drawn using the results. For confidentiality reasons, the results of the questionnaire are presented in a way that one can not differentiate between the individual answers of each one of the 20 companies.

CHAPTER 2

TURKEY AND ITS CONSTRUCTION INDUSTRY

In this chapter, firstly Turkey's current political and economic situation is briefly discussed, and then a general outlook of the construction industry is given. Thereafter, Turkish contracting companies that are operating in the former Soviet Union are analyzed, by identifying their product, market and geographical scopes, as well as their unique competencies, strengths and weaknesses.

2.1 OVERVIEW OF TURKEY'S POLITICAL AND ECONOMIC SITUATION

Turkey, located at the south-eastern corner of Europe and the western border of Asia, has an area of 780,576 km², approximately equal to 301,217 square miles. Geographic neighbors are Bulgaria and Greece to the west, Georgia, Armenia and Iran to the east, Syria and Iraq to the south. The country is also surrounded by Black Sea to the north, Aegean Sea to the west, and the Mediterranean to the south (See Figure 2.1). It is the largest country in Europe after the Russian Federation, and one of the most crowded countries with an estimated population of 59.8 million in 1993¹. Over the past ten years the population growth of Turkey has been over 2%, a significantly high figure in European terms, but below that of many developing countries. Its population density, however, was approximately 77 persons/km² in 1993, and its urbanization ratio 60% - both figures relatively lower than those of the European countries. A summary of basic data about Turkey is given in Figure 2.2.

The Republic of Turkey was established in 1923, replacing the collapsed Ottoman Empire, which ruled in Anatolia, Balkans, Middle East and North Africa for more than

¹ The Economist Intelligence Unit, Country Profile. Turkey 1994-95. p.15.

400 years. Establishing a secular political system, the country sought Western industrialization. After 1946 Turkey enjoyed multi-party politics, although broken by three spells of military government, in 1960-61, 1971-73 and 1980-83. Since 1983 the country has moved back to open, liberal political system. Today, being a unitary parliamentary republic, Turkey is the only Muslim country in which secularism is written into the constitution. In other words, the legal system is based on continental European model, with no concessions to Islamic *sharia* law.

FIGURE 2.1 Map of Turkey



Regarding international relations, Turkey was neutral from 1923 to 1944, it has aligned itself with the West since 1947 and in 1952 joined NATO. In addition to a strong bilateral relationship with the USA, Turkey belongs to most major international and European organizations, such as the OECD, the IMF and the Council of Europe. It has

had an association agreement with the present European Union (EU) since 1963 which recognizes full Turkish membership of the EU as its ultimate aim. However, due to several obstacles - the main one being the political problems with Greece - full membership acceptance into EU is delayed for several years.

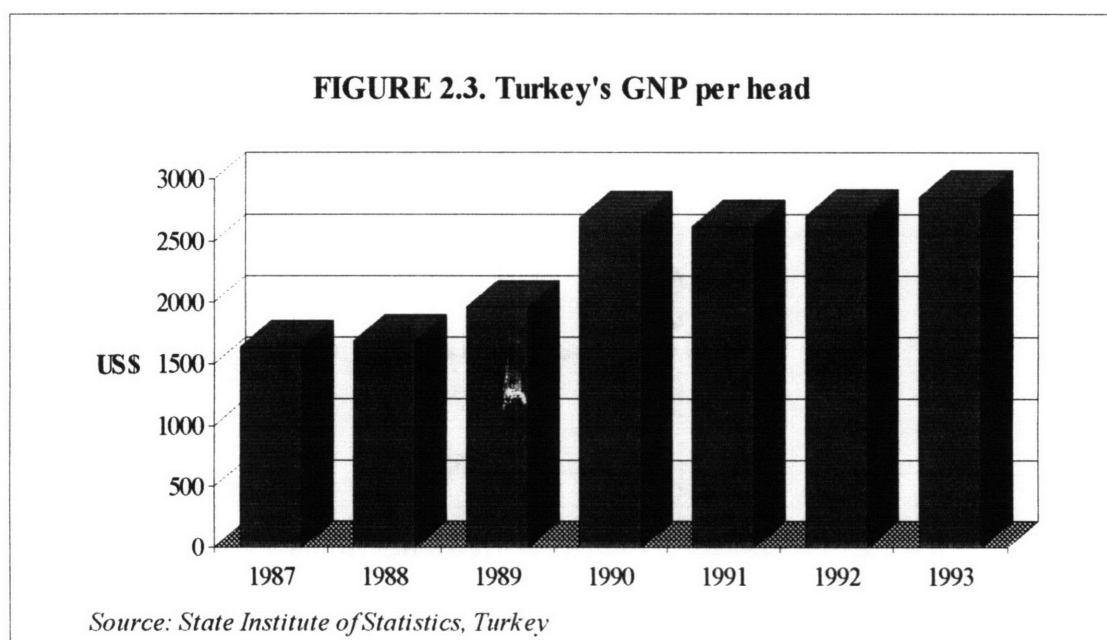
FIGURE 2.2 Summary of basic data about Turkey

Official name	Republic of Turkey
Land Area	780,576 km ² (301,217 square miles)
Population in 1993	59.8 million
Population growth rate	2.17% (average 1985-1990)
Population density in 1993	77 persons/km ²
Urbanization ratio	60%
Religion	99% Muslim, 1% other
Language	Turkish
Currency	Turkish Lira (\$1=35,800TL as of Nov. 1994)
Measures	Metric System

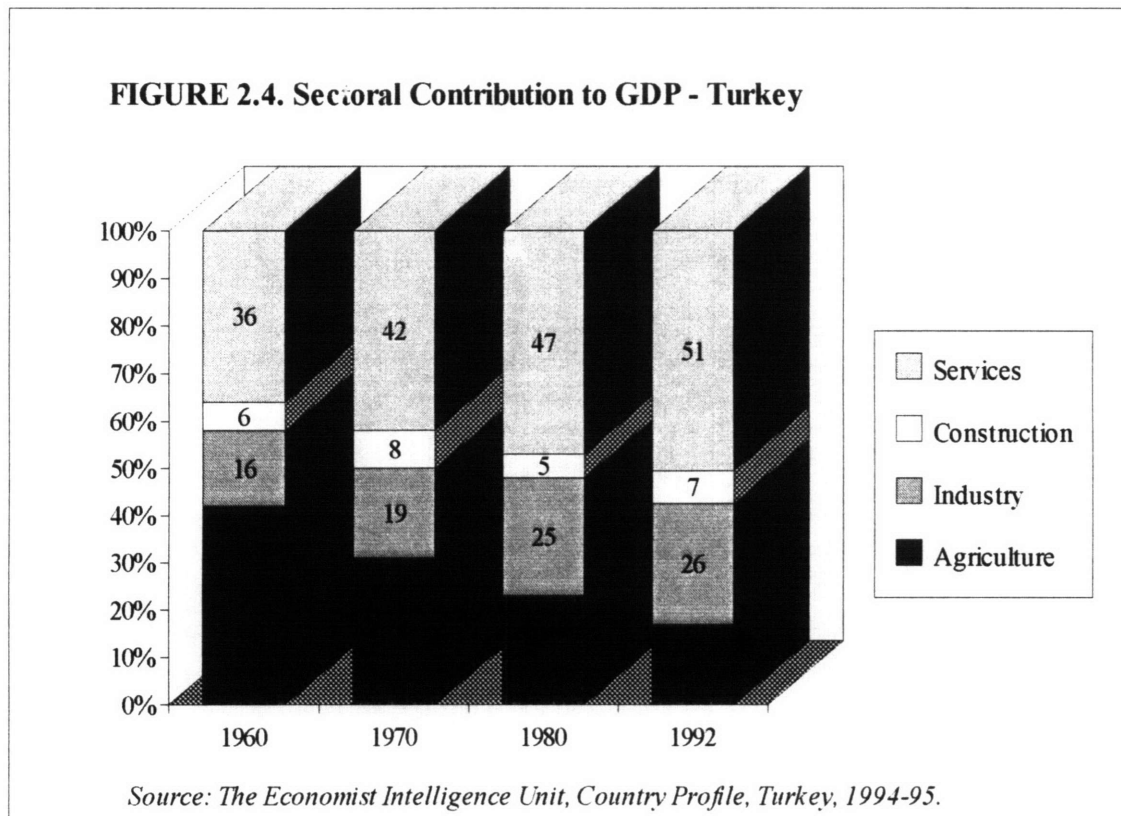
Source: State Institute of Statistics, Turkey

The break-up of the Soviet Union in 1991 has removed what was previously the major threat to Turkey's security. It has brought new problems as well as new opportunities. Religious, linguistic and cultural similarities to the Central Asian republics of the former Soviet Union is an advantage for Turkey that is active in promoting its influence in this region. The present leaders of those newly independent republics claimed that they wish to follow the Turkish model of secular democratic politics, rather than the Islamic model represented by Iran. As it is equally important, Turkey wishes to improve bilateral relationships with the Slavic states of the former Soviet Union, especially with Russia. Turkey has also taken the lead in forming the Black Sea Economic Cooperation (BSEC), which includes all other Black Sea states (see Figure 2.1) in addition to Greece, Albania, Armenia and Azerbaijan. BSEC's long term goal is to establish a free trade zone, with the most realistic goal at present being easier trade within the region.

Regarding the economic situation, the country started undertaking a coherent industrialization program in the 1960's. The state tried to direct the pattern of investment while limiting foreign ownership. During the 1970's Turkey's foreign balance deteriorated and chronic inflation rose up to 107% in 1980. Fortunately, the clampdown after the 1980 military coup succeeded to drop the inflation to 37% in 1981, to increase exports and reduce the current-account deficit. In line with the liberal economic policies, government's intervention to economic life was minimized by enforcing necessary measures for the effective operation of a free market economy. Accordingly, economic growth was strong during 1981-1987 period, but was slowed down from then on. The annual increase in GNP, 8.1% in 1986 and 7.5% in 1987, fell to 1.4% and 2.3% in 1988 and 1989, respectively. Partly, this reflected a planned slowdown aimed to reduce public sector deficit and the inflation, which had risen back to 75% in 1987. However, there was a marked recovery in 1990 when GNP grew by 9.2%. Due to uncertainties caused by the Gulf War in 1991, this growth rate was again reduced temporarily, and then increased back to 7% in 1993. This trend can be visualized by the change of GNP per capita during 1987-1993, as showed in Figure 2.3.



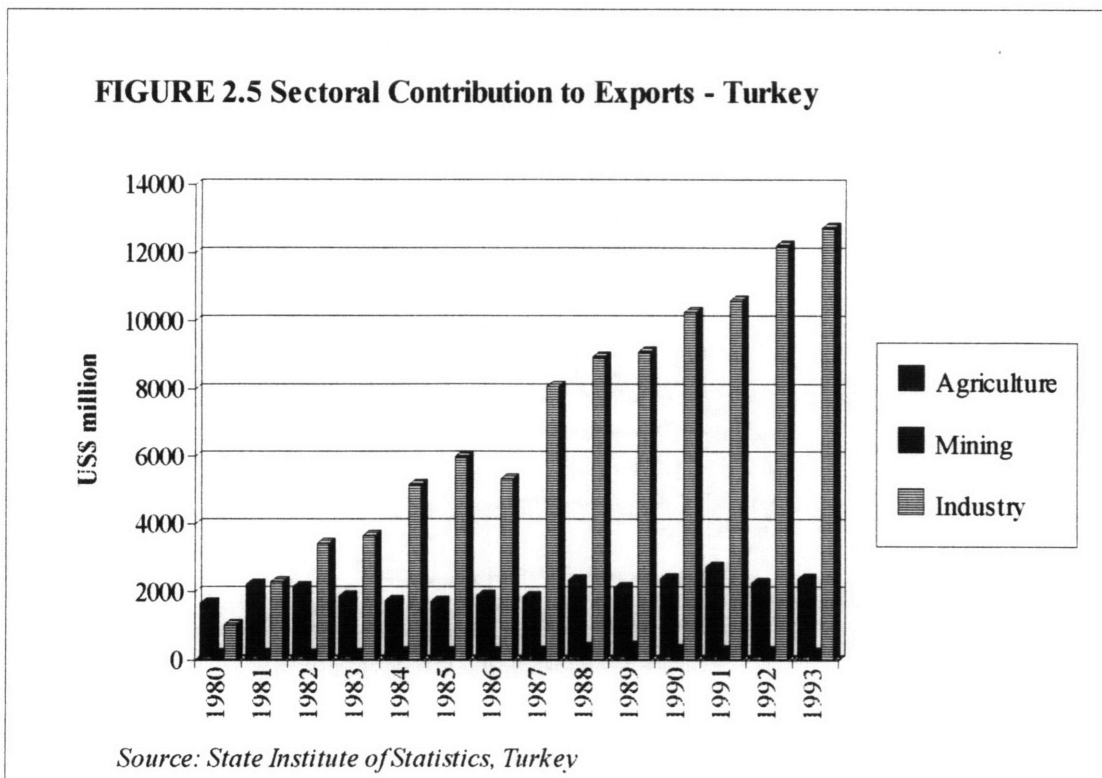
Regarding the shares of different sectors in GDP, major structural changes have occurred since the early 1960's. The share of agriculture, forestry and fishing fell from 42% in 1960 to 17% in 1992, while the share of industry rose from 16% to 26% in the same period. This change can be seen in more detail in Figure 2.4.



Parallel to the structural change in the GDP, significant changes occurred in the exports and imports of Turkey. Some twenty years ago the country was mainly exporting agricultural products, such as nuts, raisins and figs, counting as much as 70% of the total exports. With the industrialization in the late 60's and the 70's, agriculture's share dropped steadily down to 43% in 1981, when industry took the lead in the exports for the first time in the country's history². From then on industry's share in exports rose continuously, while the one of agriculture decreased significantly. Figure 2.5 shows this trend from

² State Institute of Statistics. *Statistics and Comments on the Turkish Economy*. May 1994, p.102.

1980 to 1993. Also in the same period the trade balance of Turkey, in other words the difference between its exports and imports, significantly improved. Exports as a percentage of imports rose from 37% in 1980 to 54% in 1993, reaching its peak value of 82% in 1988³.



All this economic success from 1981 to 1993, such as one of the highest economic growth rates in the world, share of industry both in GNP and exports rising, foreign trade balance deficit decreasing, etc., came to a sudden end in January 1994. After a row between the Turkish government and the Central Bank over how stiff an anti-inflation policy was needed, two international credit rating agencies, Standard & Poor's and Moody's, cut Turkey's rating. Since people started to convert their money to hard currencies, the collapse of the Turkish Lira (TL) occurred. Turkish Lira, which was

³ State Institute of Statistics. Statistics and Comments on the Turkish Economy. May 1994. p.100.

loosing value against major currencies, like dollar, German mark and British sterling, approximately 60% annually for the last decade, was devalued by 12% on January 26th 1994. The government tried to jack interest rates up, - at one point in February 1994 banks were paying an annual rate of 600% for overnight borrowing⁴ - but this has not helped a lot. On April 5, the government announced its package of emergency economic and fiscal measures. Accordingly, a legislation for improved tax collection has been passed, a letter of intent has been signed with the IMF, government bonds were sold at an interest rate of 50% for three months⁵. The results of the economic package proved successfully, with the budget deficit reducing and the inflation rate decreasing from its extreme annual rate of over 100% in the spring. The Turkish Lira has stabilized against dollar, with its latest exchange rate of 35,800 TL/\$ in November 1994. The government intents to reduce the inflation down to 20% in 1995, as stated in the letter of intent approved by the IMF. The GNP growth is expected to be zero in 1994 and 3.6% in 1995. With the future looking more promising, the government wishes to prepare ground for further privatization of State Economic Enterprises.

2.2 THE CONSTRUCTION INDUSTRY IN TURKEY

The Turkish construction industry began to develop after the end of the World War II in 1945. Between 1950 and 1970 it developed due to the USA government aids and other development funds given to the country. These aids were called 'Marshall Aids', named after the person who planned and organized them. During this era most of today's large construction companies were established. However, in line with the economic crisis in the late 1970's, the construction industry suffered, too. Domestic market shrank significantly, while public contracts experienced delayed payments, which lead to many bankruptcies. Several projects were left unfinished, and the number of legal

⁴ The Economist, February 5, 1994, p.52.

⁵ The Economist Intelligence Unit. Country Report. Turkey, 3rd quarter 1994, p.23.

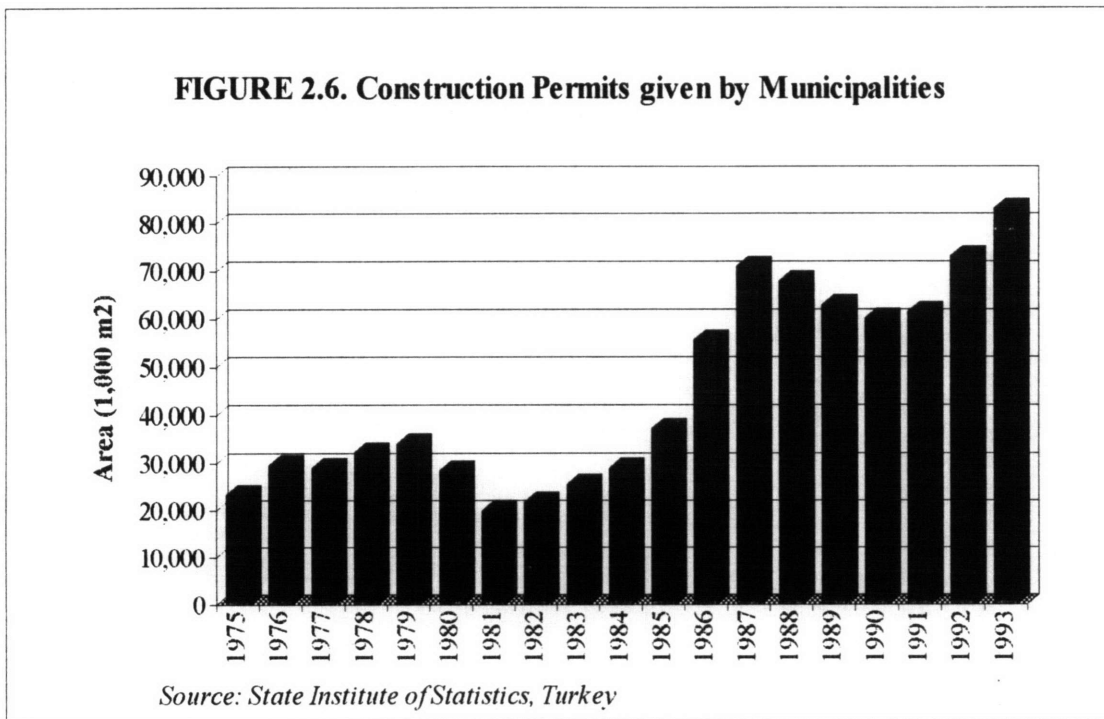
claims and unemployed workers increased dramatically. Some larger contractors were able to expand their activities to overseas markets, and thus they were affected by the domestic crisis to a lesser extent. Major overseas markets which they expanded to were Libya, Saudi Arabia, Iraq and other Middle Eastern countries. Due to the oil price boom these countries, in the late 1970's, experienced increasing revenues. They spent this surplus for building their infrastructures and other development requirements. The Turkish-Libyan Joint Economic Cooperation Protocol in 1975 and similar arrangements with other countries paved the way for Turkish contractors into these markets⁶. Cultural and religious links to these Muslim countries, as well as the cheapness of Turkish labor were important advantages of Turkish contractors when entering in these markets. Projects undertaken were mostly non-sophisticated, Turkish contractors acted both as subcontractors to other foreign companies and as main contractors.

As discussed in detail in the previous section, Turkish economy started recovering after the military intervention in 1980. Decreasing inflation and reducing budget deficit, had positive effects on the construction industry, as well. From 1980 to 1987 the Turkish construction industry experienced a tremendous growth domestically and internationally. Domestically, both public and private investments increased in the sectors of transportation, energy, tourism and housing. The then motorway network, which only consisted of the Orbital Motorway of Istanbul, was planned to be expanded rapidly. The construction of these motorways were carried out by joint ventures made by foreign and Turkish companies. The construction of a huge energy and irrigation project in the Southeastern part of the country was accelerated, which included construction of several dams, hydro-electric power plants and irrigation tunnels. The major part of construction contracts were undertaken by Turkish construction companies. Due to such projects Turkish contractors, partly capturing from their foreign joint venture partners, improved

⁶ Giritli et al.. 1990. p.416.

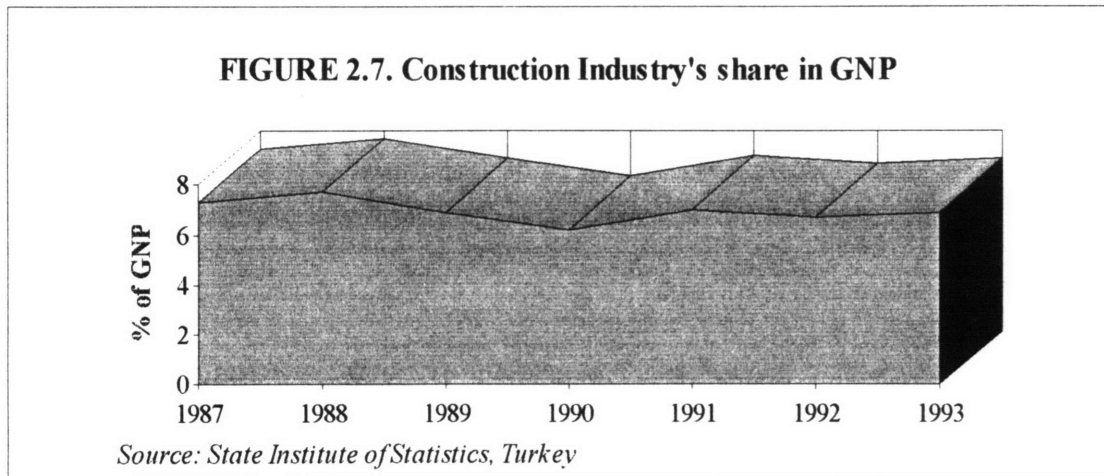
their technological abilities, as well as their project management techniques. Internationally, they continued operating in North Africa and Middle East with increasing market share, although some payment problems have been experienced.

After 1987 parallel to the economic slowdown, Turkish construction industry experienced a revival in the domestic market. This trend can be seen in Figure 2.6, which shows the change of construction permits given by local municipalities. After 1990 until 1993 there has been a remarkable increase in the domestic construction industry, while international contracts in the Middle East shrank dramatically mainly due to the Gulf War in 1991. Thus, Turkish contractors shifted their geographic focus to the new emerging markets of the USSR.



The construction industry has been and still is an important sector in the Turkish economy, as well as a good indicator of it. The industry's share in the Gross National Product has been around 7% as shown in Figure 2.7. Especially, after the Turkish

contractors have expanded their activities to overseas markets, they are contributing significantly to the country's exports - it is estimated that they are bringing approximately half of the total overseas contract amount, \$1 billion annually, back to Turkey⁷. This corresponds to almost 10% of the country's exports in the early 1990's.



Regarding clients in the domestic market, a major part is public, namely Government Ministries, State Economic Enterprises and local Municipalities. Among the ministries the major clients are: the Ministry of Public Works and Resettlement, the Ministry of Energy and Natural Resources, the Ministry of Transportation, the Ministry of National Defense and the Ministry of Tourism. The private clients consist of a variety of companies operating in several sectors, such as manufacturing, media, health care, tourism, etc.

Regarding the different contract types and bidding systems, almost all public contracts are unit priced and competitive bidding. Contractors bid their discounts on unit prices determined by the Ministry of Public Works and Resettlement. Until 1990 the lowest bidder was awarded the contract, however this has been changed to a procedure where the bidder who is closest to average of all the bidders is awarded the contract. This

⁷ Union of International Contractors. Turkey. Outlook. November 1992. p.4.

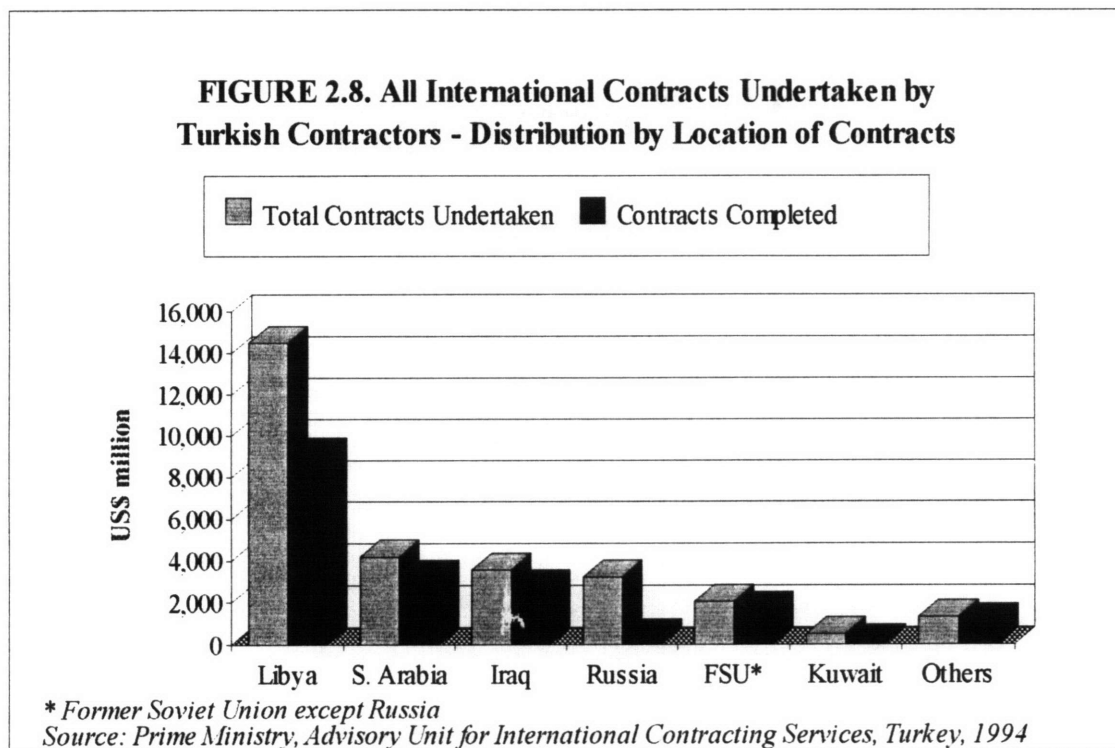
was mainly due to many smaller contractors bidding extremely low, and then stopping the project because of their financial problems. In 1993, however, the procedure was changed back to the initial one. Build-Operate-Transfer contracts are also getting popular in the public sector. Although not many large scale projects (e.g. toll roads) have been awarded yet, several smaller type projects, like gas stations on the newly constructed motorway between Istanbul and Ankara, have been awarded on a BOT basis. Birecik and Karkamis Dams on the Euphrates River in the southeastern part of Turkey are the largest projects awarded on such a basis.

In the private sector, both unit price and lumpsum contracts are common. With regard to contractor selection, private clients usually prepare a short list of contractors, who have the related technical ability and experience as well as financial strength. After a competitive bidding, clients negotiate with some of the best priced bidders and hence choose one of them. Design-build type of contracts are also getting popular in the private segment, where the contractors either complete the design with their in-house capabilities or subcontract it to a design firm. Another common type of contract is 'mutual construction', where the land owner enters into a partnership with a contractor who will develop the land⁸. Usually medium size contractors enter into such arrangements in order to build residential and commercial buildings in large cities of Turkey. Labor is mostly non-union in the construction industry, and subcontractors' and material suppliers' market is fragmented with a lot of small to medium size companies.

Having discussed the development of the Turkish construction industry and the current structure of the domestic industry, some emphasis will be given to the international operations of the Turkish contractors. As stated earlier, in late 1970's and 1980's Turkish companies undertook contracts in North Africa and the Middle East, which were the first overseas markets of the Turkish construction industry. Towards the

⁸ Tavakoli and Tulumen, 1990. p.81.

end of 80's contracts in these geographic area started shrinking when the Soviet Union emerged as a potential market. Turkish contractors, who had gained expertise in new technologies and project management techniques both from Western consultants and construction companies, were ready to take higher technology and higher quality projects in the new emerging markets. As Giritli et al puts it : "..., not only have Turkish contractors undertaken such [dams, bridges, airports] projects, but they are now [1990] also exporting their newly acquired expertise". Namely out of the international contracts undertaken by Turkish contractors, 7% of them are heavy construction projects including highways and bridges, 11% of them are industrial plants⁹. As of January 1994, distribution of all international contracts undertaken by Turkish firms by the location of projects is shown in Figure 2.8.



⁹ Union of International Contractors. Turkey, Outlook. January 1994, p.6.

As seen from the above chart almost all other geographic markets except the Russian Federation, have high project completion ratios. Contractors operating in Libya have been experiencing significant payment problems, thus this market too has lost its attractiveness. It is estimated that the former Soviet Union most likely will be the only major market for Turkish contractors in the near future. Therefore, it is crucial that they position themselves well within this market.

2.3 TURKISH CONTRACTING COMPANIES IN THE FORMER SOVIET UNION

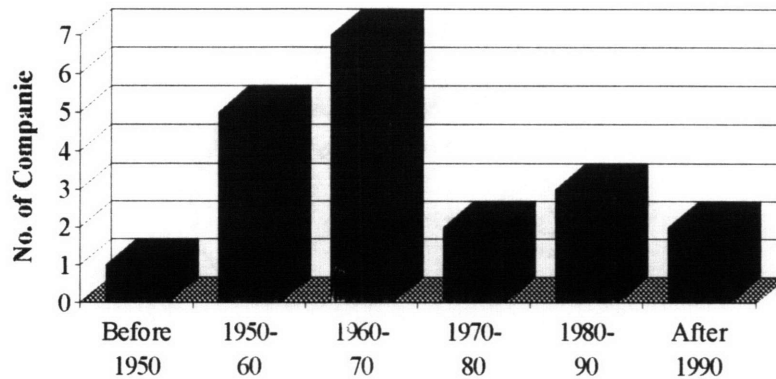
In this section the main sources of information will be (1) the results of the questionnaire completed by 20 Turkish contracting companies operating in the former Soviet Union, (2) literature search about characteristics of Turkish contracting companies with overseas activities. Firstly, product-, market- and geographic scopes of these companies will be discussed. Secondly, unique competencies, strengths and weaknesses of these companies will be identified.

2.3.1 Identification of Product-, Market- and Geographic Scopes

Before discussing the product-, market- and geographic scopes of the Turkish contracting companies that are operating in the former Soviet Union, basic information about their age, size and independence will be given. Regarding the age of these companies most of them were established in the 1950-1970 period. Figure 2.9. shows the distribution of the companies by the year of establishment. Both of the two companies which were established after 1990 are actually joint ventures made by older Turkish companies, with the mission of operating solely in the former Soviet Union. Regarding the sizes of the 20 surveyed companies, two dimensions were identified. Firstly, their annual turnovers in 1993 are mainly in the \$10-50 million range, in addition to five of them in the \$100-250 million range, and three of them over \$250 million (See Figure 2.10). Hence, the companies with annual turnover less than \$100 million will be referred

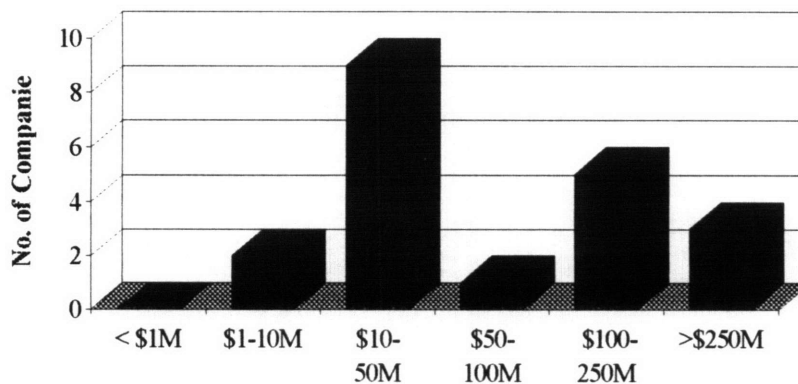
as medium sized, and the ones with annual turnover greater than \$100 million as large contracting companies. Medium sized companies have employees usually less than 1000, whereas the large ones had more than 3000. Regarding the independence, nine out of these 20 companies are subsidiaries of parent companies, which operate in variety of businesses including banking, manufacturing, tourism, food, etc. Thus, their business strategies are most likely controlled by the corporate missions of their parent companies.

FIGURE 2.9. Turkish Contractors in the former Soviet Union - Year of Establishments



Source: Questionnaire Results

FIGURE 2.10. Turkish Contractors in the former Soviet Union - Revenues in 1993

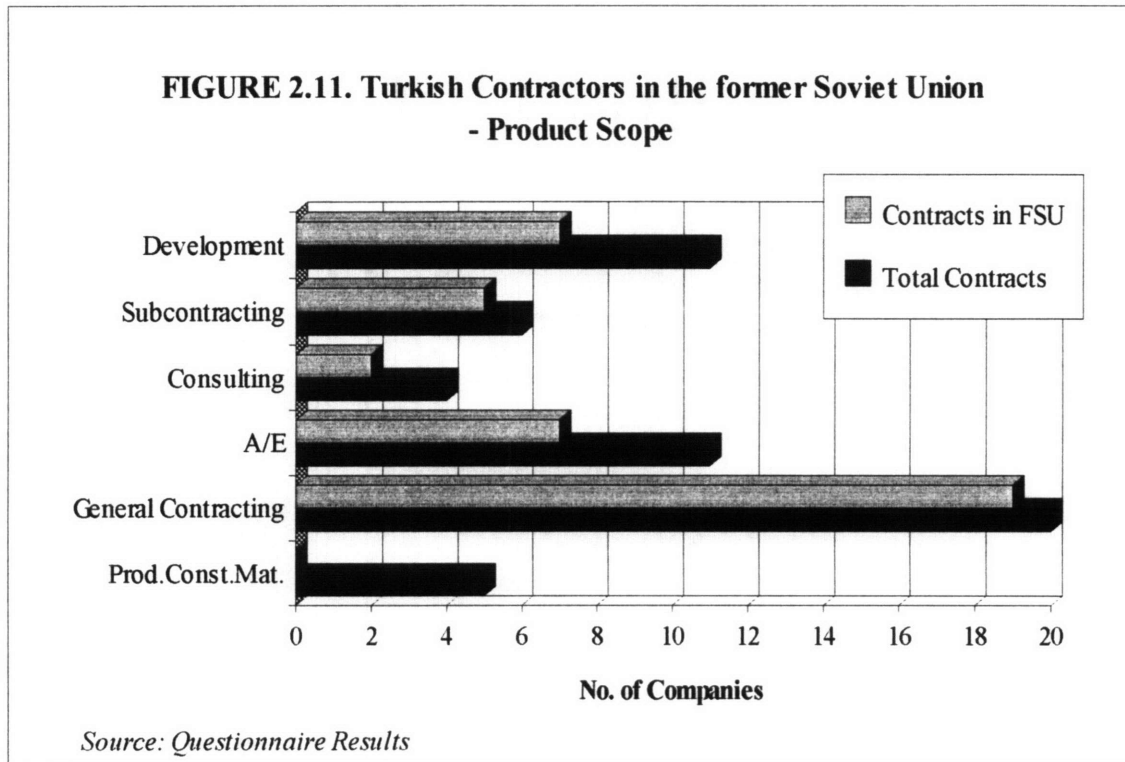


Source: Questionnaire Results

Product Scope

Product scope is an outline of products produced and/or services offered by a firm. Although contracting can be considered as a service rather than a product, the strategic term 'product scope' will be used in the rest of this paper.

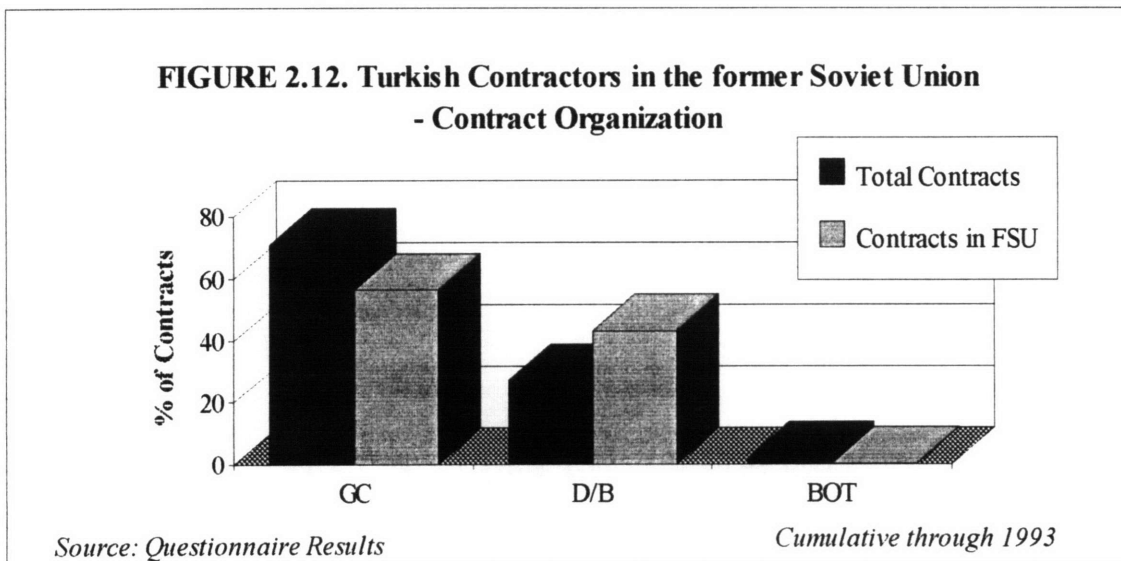
Regarding the product scopes of the Turkish contracting companies, they vary across different value activities within the construction industry value system. Production of construction materials, subcontracting, design (A/E), consulting, general contracting and development are such activities. Looking at Figure 2.11 we can see that Turkish contracting companies are vertically integrated, especially in the domestic market.



In addition to general contracting, they are producing construction materials, such as wood structures, formworks, prefabricated concrete elements, etc., as well as providing architectural and engineering design services, subcontracting and consulting services. Turkish companies are vertically forward integrated, too: development of residential and

commercial buildings are good examples for that. However, regarding operations in the former Soviet Union, Turkish contractors are relatively less vertically integrated, with no company producing construction materials, and only two offering consulting services. Subcontracting, A/E design and development are undertaken, but by less firms than in the domestic market.

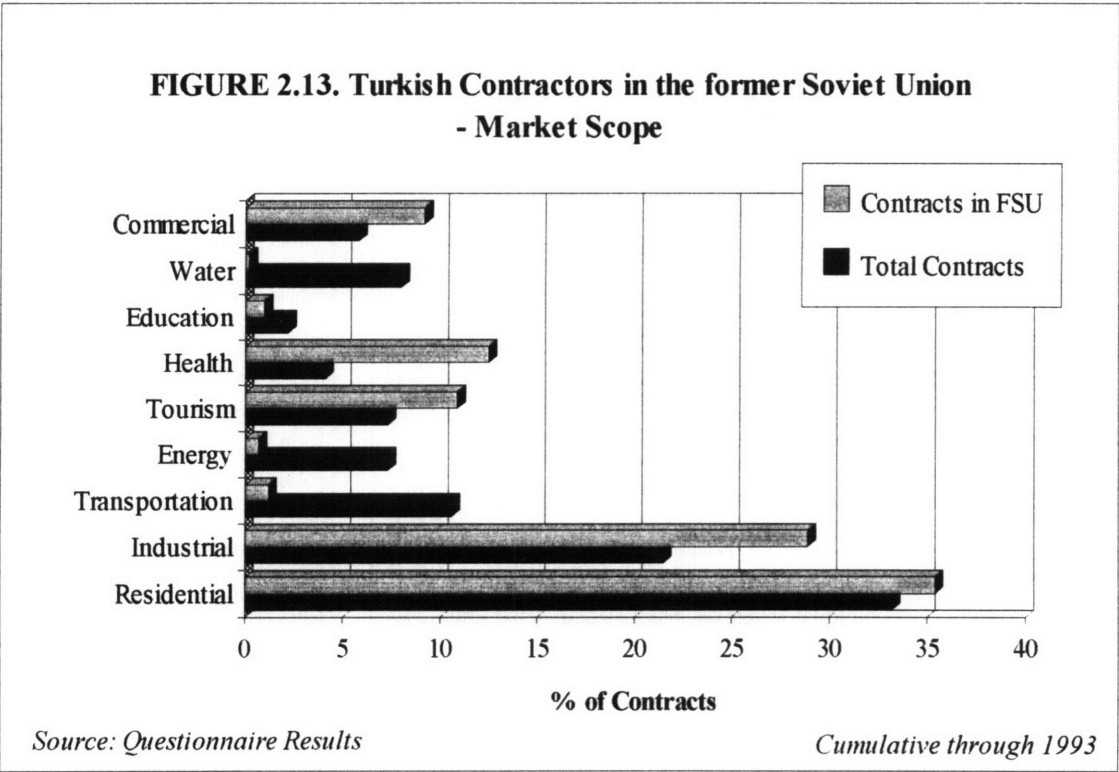
Regarding the organization of contracts undertaken, out of total contracts 70.9% of them are General Contracting, 27.1% Design/Build and the rest on BOT basis. Looking at Figure 2.12 we can see that contracts in the former Soviet Union are distributed more evenly between General Contracting and Design/Build, with a higher percentage of Design/Build (43%) and none BOT contracts. The reason behind this is that clients in the former Soviet Union prefer foreign contractors providing designs due to unavailability of private local design firms, as mentioned by managers of several Turkish contracting companies during completing the questionnaire.



Market Scope

Market scope is an outline of all market segments served by a company. In our case, market scope has two dimensions, namely (1) type of sector, (2) public vs. private

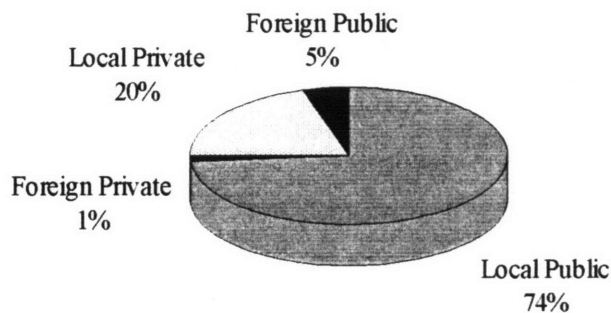
clients. Along the first dimension, examples of market segments are energy, transportation, water, residential, commercial, industrial, tourism, education and health sectors. Figure 2.13 shows that regarding their total contracts Turkish contractors are well diversified in several market segments, with residential, industrial and transportation at the top of their lists. However, in regard to the contracts in the former Soviet Union, they are focused on some market segments. Most contracts come from residential and industrial segments, where health, commercial and tourism have shares each approximately 10%. If one combines residential, commercial, health and tourism segments under one category of 'general building', Turkish contractors are really focusing on this category, with almost 70% of their contracts in general building segment.



Along the second dimension of market scope, 65% of all domestic contracts undertaken by these 20 companies had public clients. 5 of them had specifically focused on private clients, with the remaining 15 having public clients to total clients ratios around

75%. On the other hand, regarding the contracts in the former Soviet Union, the major part is public clients, such as government ministries and state enterprises (see Figure 2.14). Some of these enterprises are changing their status to become private companies, and these count for one fifth of clients who own all projects undertaken through 1993. During 1990-91 the German government has funded housing projects worth of DM 7.8 billion (\$5 billion), in order to accommodate the Soviet Army personnel returning from the then East Germany¹⁰. Turkish contractors, mostly with German and Finnish joint venture partners, took a major part of these projects. Also Turkish Embassy and Consulate buildings were constructed and renovated in most republics of the former Soviet Union solely by Turkish contractors. All of these correspond to 4.6% (foreign public clients) in Figure 2.14.

**FIGURE 2.14 Turkish Contractors in the former Soviet Union
- Distribution of Contracts in FSU by Client Type**



Source: Questionnaire Results

Cumulative through 1993

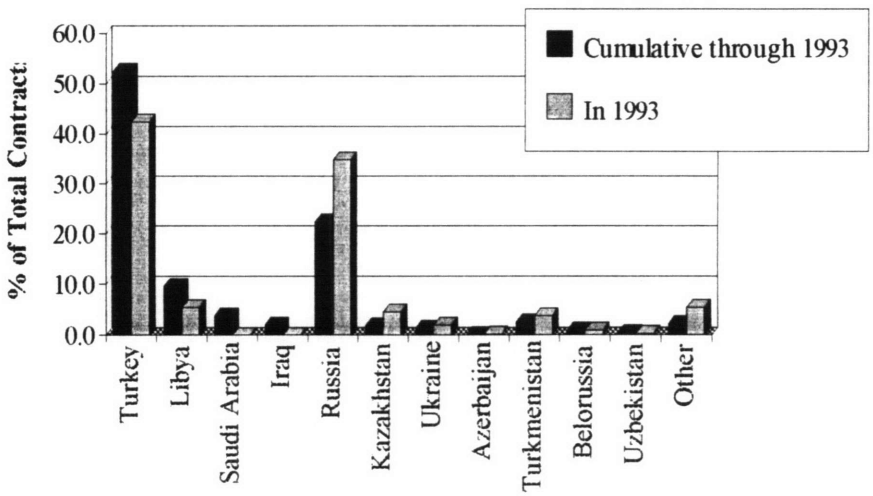
Geographic Scope

Geographic scope is an outline of geographic regions and/or countries in which a firm operates and offers its products/services. As it is visible from Figure 2.15 Turkish

¹⁰ Kaynak and Dalgic, 1992, p.65.

contracting companies that are operating in former Soviet Union are geographically diversified into North Africa and Middle East. Out of 20 surveyed companies 9 of them have previously operated in Libya, 8 of them in Saudi Arabia and only 4 of them in Iraq, which were once the most important markets for the Turkish construction industry. However, 15 of these Turkish contracting companies had overseas construction experience in some country, before entering the former Soviet Union market. Considering that 2 of the remaining 5 companies are actually joint ventures made by internationally experienced Turkish contracting companies, one can argue that the surveyed companies had significant international construction experience prior to entering the former Soviet Union market.

FIGURE 2.15 Turkish Contractors in the former Soviet Union - Geographical Scope



Source: Questionnaire Results

Within the former Soviet Union the Russian Federation is by far the largest market for Turkish contracting companies, as can be seen from the above chart. Kazakhstan, Turkmenistan and Ukraine are other focused markets within the FSU. With

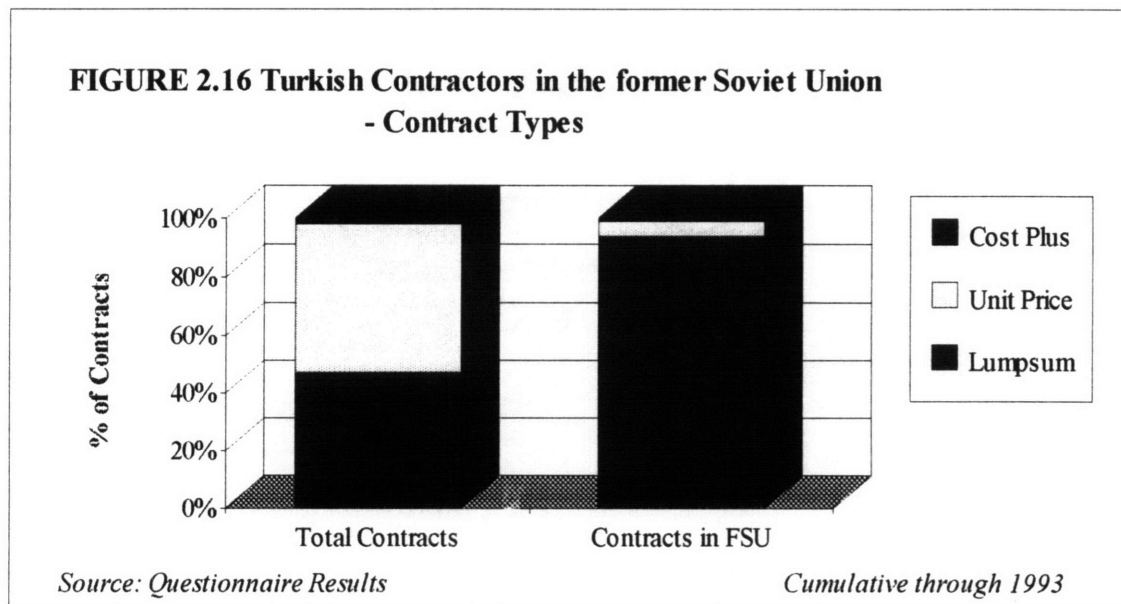
regard to the geographic scope, two other important results are obtained. The first one of them is that surveyed Turkish contracting companies, on average, were operating in 2.75 countries, including Turkey, in 1993. Only two of those companies had projects in more than 4 countries. This narrow geographical focus can be considered to be a function of their relative small company size compared to international standards. The second important result is that the surveyed Turkish companies are very much dependent on international work. As Figure 2.15 indicates, these companies, on average, had almost 60% of their total contracts in 1993 outside of Turkey. The volatile behaviour of the domestic construction market as well as its relative small size (approximately \$12 billion in 1993) force Turkish contractors to be highly internationalized. All these characteristics will be compared to their equivalents of other nations' contractors in the next chapter.

Having identified product-, market- and geographic scopes of Turkish contracting companies, two other points will be discussed. The first one is the distribution of their contracts between new construction and renovation. Regarding total contracts undertaken by surveyed Turkish contracting companies, 94% of them are new construction, and the rest renovation. Out of the contracts awarded in the former Soviet Union 92% of them are new construction and 8% renovation. The second point deals with the contract types, e.g. lumpsum, unit price, cost plus. Figure 2.16 shows the distribution by this criterion. The main result is that within the contracts undertaken by Turkish contractors in the former Soviet Union, the most used contract type is lumpsum.

2.3.2 Analysis of Unique Competencies, Strengths and Weaknesses

Before analyzing unique competencies, strengths and weaknesses of Turkish contracting companies, the distinction between a strength and a unique competency will be made. A strength is a characteristic that puts the firm in an advantageous position against its competitors. The same strength can be shared by several competitors at a time, whereas a unique competency is a capability that sets a firm apart from the competition,

making it possible to sustain a long-term competitive advantage. To qualify as a unique competency, this capability should be unmatched by competitors¹¹. Therefore, a unique competency of a firm is definitely its strength, but a strength of a firm is not always a unique competency. For example, a company having a cost structure lower than the industry average can consider this as one its strengths. However, only the company with the lowest cost-structure can be considered having a unique competency. Although not described by this example, unique competencies are usually intangible assets of a firm, which are difficult to be imitated or substituted by competitors. This concept will be further clarified when discussing the unique competencies and strengths of Turkish contracting companies.



In this section the sources of information are (1) results of the questionnaire completed by 20 Turkish contracting companies, (2) literature search about the Turkish overseas contracting services.

¹¹ Hax, 1991, p.77.

Unique Competencies of Turkish Contracting Companies in the former Soviet Union

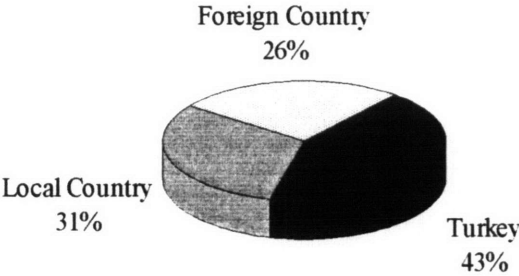
Geographical Proximity to the former Soviet Union. As mentioned in the previous section of this chapter, Turkey is located strategically in the southeastern corner of Europe and the western part of Asia. Therefore, all of the former Soviet Union republics (with exception of the 3 Baltic States) are located at a median distance of 2000 km from Turkey. Western European countries, Germany, Austria and Finland, can be considered close to the Russian Federation, Belorussia and Ukraine, within the 2000 km distance, however, with regard to the Central Asian republics of the former Soviet Union the median distance is well over 4000 km. The opposite is valid for contractors from countries like China, India and Pakistan. These are relatively close to the Central Asian republics, but not to Ukraine and Belorussia. Briefly, Turkey is really the only country which is geographically located closest to all republics of the former Soviet Union.

Geographical proximity obviously plays an important role in transportation of labor, equipment and construction materials from the home country. According to the questionnaire results, surveyed Turkish contractors had an average 'Turkish labor to total labor ratio' of 76%. Therefore, one can conclude that significant savings are made in labor transportation costs due to geographical proximity. The same argument can be made for construction materials exported from Turkey to the former Soviet Union, since this represents 43% of all materials used by the surveyed companies. Figure 2.17 shows the distribution of construction materials by country of origin.

Cultural and lingual links to the Central Asian republics of the former Soviet Union is considered to be another unique competency of Turkish contracting companies. Historically going back to the period between 3rd and 9th centuries, Turks lived in the Central Asia. After the 10th century some of them moved to Anatolia and established an empire, which later became the Ottoman Empire. In that sense, people currently living in Turkey come from the same race as people living in the Central Asian republics of the former Soviet Union. Obviously, over more than 9 centuries these cultural links

weakened significantly, however, some similarities in traditions still exist. And most importantly, all Central Asian republics use a dialect of the Turkish currently used in Turkey. Especially, Azerbaijani and Turkish people are able understand each other 90% of the dialogue times. This percentage decreases as you more east to Turkmenistan, Uzbekistan and Kazakhstan. All these, give the Turkish contracting companies a clear advantage over its foreign competitors, however, these are not sufficient for clients to prefer Turkish contractors. Other factors, such as technical ability and experience, financial strength, etc. are obviously important criteria when choosing a contractor. Finally, it is widely believed in Turkey that neither on country/government level nor on company level, these cultural and lingual links are used to the fullest benefit for Turkish contractors.

**FIGURE 2.17 Turkish Contractors in the former Soviet Union
- Distribution of Construction Materials Used by Country of Origin**



Source: Questionnaire Results

Cumulative through 1993

Overall risk taking attitudes of Turkish contracting companies is the last unique competency identified. The fact that all of the surveyed companies are privately owned, e.g. no stocks in market, allows them to take risks that shareholders and institutions would not countenance, as might be the case in Western Europe, USA and Japan. As a

study made by two Turkish and two English researchers puts it: "They [Turkish contractors] are prepared to undertake projects on which the security of payment would alarm a Western contractor"¹². Indeed, delays in payment seem to be accepted by Turkish contractors as part of doing business, due to their experience in domestic market and previous operations in North Africa, especially in Libya. Also the volatility of the domestic construction market forces them to diversify geographically, probably more than their competitors. As a result of their risk taking attitude, one can argue that Turkish contracting companies have the possibility of enjoying first mover advantages when entering into new geographic areas. While their competitors might be analyzing the benefit/cost ratios and net present values of certain projects in a new country, Turkish contractors move quicker than their competitors. However, this risk loving attitude might not always prove to be successful and in the extreme case can lead to a bankruptcy, if projects undertaken all become significantly unprofitable. As a conclusion, this risk taking attitude is a characteristic, which can be qualified as a unique competency of Turkish contracting companies because it is not matched by other foreign competitors.

Strengths of Turkish Contracting Companies in the former Soviet Union

In addition to the above discussed three unique competencies, which are also considered as strengths, three more strengths of Turkish contracting companies will be discussed.

Cheapness and mobility of Turkish labor is probably the greatest strength that Turkish contractors possess against their Western competitors. This capability is considered to be a strength, rather than a unique competency, since it is matched by contractors from other developing countries, such as South Korea, India, China, Pakistan,

¹² Giritli et al., 1990, p.425.

etc. However, overall it is still a significant competitive advantage, especially against competitors from USA, Western Europe and Japan.

According to the managers of surveyed Turkish contracting companies, they are paying their laborers on the overseas projects approximately \$600 per month. This amount may seem low, however, comparing it to the salaries of equivalent persons working in domestic projects in Turkey, it is almost twice as much. This, obviously, is a reflection of the domestic economic situation in Turkey. Due to high unemployment rate and low domestic salaries, the opportunity to work in a overseas project is strongly welcomed. Comparing this \$600 to its equivalent of contractors from USA, Europe and Japan, it is estimated that Western contractors pay their laborers around \$2400 per month for domestic projects¹³. Therefore, for overseas projects Western contractors, by subcontracting, mostly use cheap local labor. However, project managers, architects, engineers and some other professionals are still brought from home countries, and thus increase overall labor costs for Western contractors. As mentioned earlier, according to the questionnaire results on average 76% of all labor used by the surveyed Turkish companies in the projects in FSU are Turkish. Clearly, these companies are using their advantage of cheap labor to a full scale. The remaining 24% of total labor is usually provided from local sources. Although local laborers are even cheaper than the Turkish laborers, their extremely low productivity rates and low skill levels make it uneconomic to use them in all type of works. Therefore, Turkish contractors use them only in non-sophisticated works, such as transportation of materials within site, excavation, earthmoving, etc.

Timely delivery of projects is another strength of Turkish contracting companies. Before the break-up of the Soviet Union, construction projects were undertaken by domestic state organizations and by foreign companies from Poland, Romania,

¹³ According to ENR, December 19, 1994, hourly job rates for laborers in USA, UK and Japan vary between \$14 to 16. This corresponds to \$2400 per month, assuming 40 hours per week.

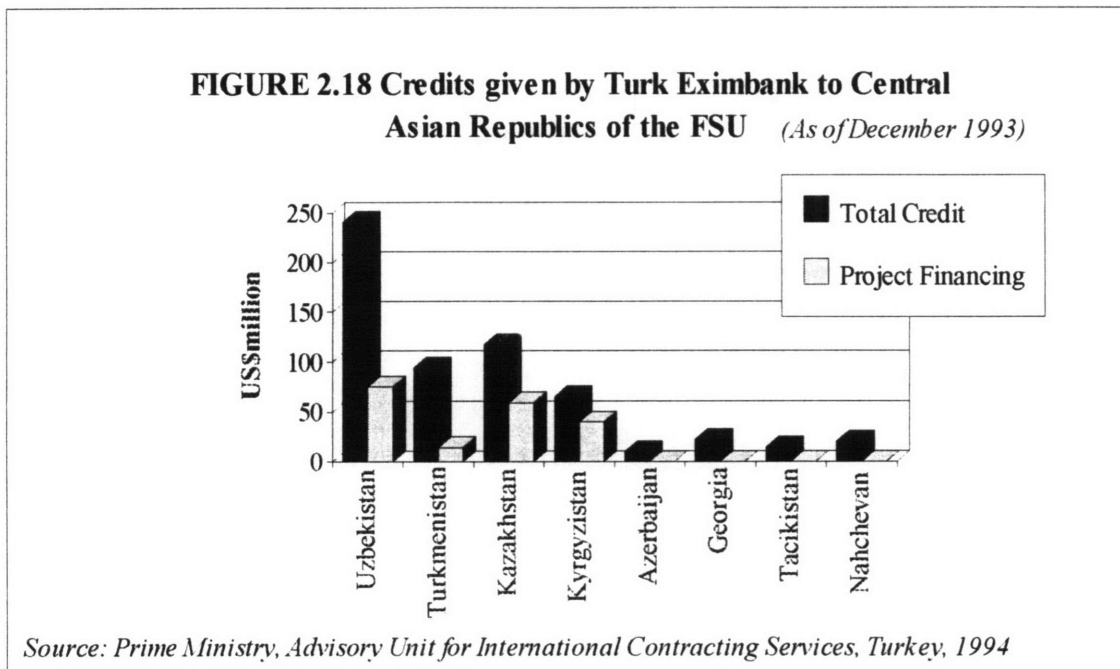
Yugoslavia and other Eastern Block countries. Their productivity rates and project completion periods were not comparable to international standards. Therefore, after the break-up of the former Soviet Union clients were amazed with the foreign contractors project delivery times, while a lot of projects were required to be finished in a significantly short time. According to a manager of a surveyed Turkish contracting company, priority in the human resources, money and management allocation is projects in the former Soviet Union. This seemed to be the common behavior across other surveyed Turkish contractors. Thus, several projects in the FSU had been finished well before the scheduled dates, in order to satisfy clients' needs and market for new projects. Also the fact that Turkish laborers, with minor incentives, are willing to work more than 8 hours per day, is an important factor in this issue.

Good relationship with clients is another strength of Turkish contracting companies. According to managers of several surveyed Turkish contracting companies, their relationships with clients were usually at a personal level. Since their average company sizes (\$10-100 million) are relatively smaller than their Western competitors, the owners and executives of the Turkish contracting companies, personally, can deal with all of their clients. This is rather difficult for Western contractors with annual turnovers over \$1 billion and a multiple number of clients.

Weaknesses of Turkish Contracting Companies in the former Soviet Union

Lack of sufficient government support is arguably the most important weakness of Turkish contracting companies. The government support in this case has three dimensions: (1) credits given to other countries for project financing, (2) loans given to Turkish contractors operating in the former Soviet Union, and (3) tax rates applying to contractors with overseas projects. Along the first dimension Turk Eximbank is Turkey's

official credit agency, which was established in 1987¹⁴. Since then until 1993 it has extended US\$1.15 billion worth of credit, mostly to Eastern European countries and newly independent states of the former Soviet Union. Within those countries, Muslim Central Asian Republics, which have historical, cultural and lingual links to Turkey, received the major portion. Figure 2.18 shows the amounts of credits given to the Central Asian Republics of the former Soviet Union, with the share of project financing in each country. A cumulative total of \$583 million, with a \$188 million for project financing (all projects undertaken by Turkish companies), has been extended to these countries. Although this amount can be considered large with regard to the size and status of the Turkish economy, it is relatively small compared with international standards. Turkish contractors feel that this support is not sufficient, as will be discussed later in this chapter.



Another issue related to Turkish government's support is loans given to Turkish contracting companies that are operating in the former Soviet Union. A special legislation

¹⁴ Euromoney, April 1993, p.23.

was passed in February 1993, which allows Turkish contracting companies to have loans with low interest rates, if they are undertaking projects over \$5 million in the former Soviet Union. The amount of the loan is limited to the 10% of the project value. Although this looked promising in the beginning, for several reasons, only a total amount of \$38.7 million have been borrowed - 65% of it for projects in the Russian Federation¹⁵.

The third issue concerning the Turkish government's support is the tax rates applied to Turkish contractors with overseas activities. Currently Turkish contracting companies that are operating in the former Soviet Union are paying income taxes both in the host country and in Turkey. Comparing this to their competitors, Western European contractors are exempted from domestic income taxes if they have to pay income tax in the country, where the project is located. This doubling of income taxes that Turkish contractors have to pay, obviously, puts them in a difficult financial position. Although efforts have been made by the Union of Turkish Contractors to prevent this unfair situation, no concrete results have been obtained until late in 1994.

Narrow geographic scope is another important weakness of Turkish contracting companies. According to the questionnaire results, surveyed companies, on average, are operating in 2.75 countries - including Turkey - in 1993. This figure is significantly low compared to the contractors from the countries, such as USA, Europe and Japan. A detailed comparison will be made in the next chapter, in section 3.2.2. This narrow geographic scope is clearly a result of the small size of Turkish companies, as evaluated earlier in this chapter. In terms of annual revenues, out of the 20 surveyed companies 9 of them are in the \$10-50 million, and 5 of them in the \$100-250 million range. As a result of this narrow geographic scope, they confront the risk of being short of projects, if the geographic market in which they operate suddenly shrinks. As an example, when the Middle East market shrank dramatically in early and mid 1980's, Turkish contracting

¹⁵ Prime Ministry. Advisory Unit for International Contracting Services. Turkey. 1994. p.97.

companies had difficult times, mainly because they were focused only in this geographic area. Also the small size (approximately \$12 billion in 1993) and the volatility of the domestic construction industry in Turkey, increases the possibility of the above mentioned risk.

Financial situation of the Turkish contracting companies is considered to be another weakness of theirs. No detailed financial data of the surveyed companies could be collected because they are all privately owned firms. However, parallel to the deteriorating domestic economy, Turkish contracting companies are also not financially as strong as their Western competitors. It is a common procedure in Turkey that prior to the project start contractors are paid an amount of up to 25% of the total project value. This 'advance payment' is used in mobilization and purchasing of materials and machinery. This procedure is also a good indication of the financial situation that the Turkish contracting companies are in. Giritli et al., in 1990, have considered this issue as a major weakness of the Turkish contractors.

The limited use of Turkish design and consulting companies in the overseas contracting services is another important weakness. Western contractors especially from UK, France and USA benefit significantly from their nation's design and consulting companies. British and American consultants are heavily in demand overseas, and they strongly support their nation's contractors, whereas French consulting companies usually restrict the source of construction materials to France¹⁶. Such support, however, is not common in the case of Turkish consulting firms. The main reason behind this is that Turkish design and consulting services are relatively less developed than their Western competitors.

Having identified the unique competencies, strengths and weaknesses of Turkish contracting companies, views of the managers of surveyed Turkish companies on this

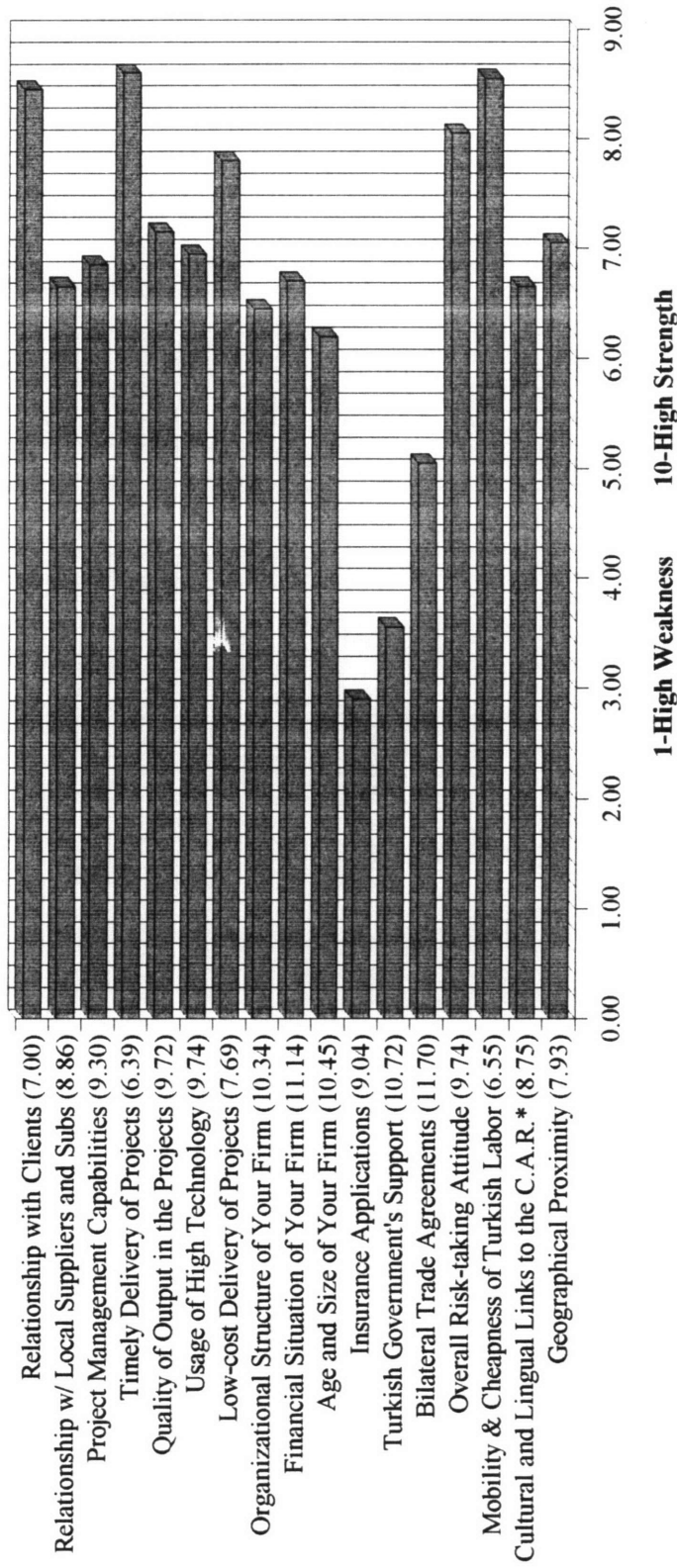
¹⁶ Seymour, 1987, p.171.

matter will be discussed. Figure 2.19 shows how they assess their own companies' strengths and weaknesses against other international competitors in the former Soviet Union. Managers were asked to give a point between 1 and 10 for each of the listed potential strengths/weaknesses. Point 1 for an issue indicates that it is considered as an important weakness of the Turkish company against its competitors. On the contrary, point 10 for an issue indicates that it is an important strength of the Turkish company over its competitors. Results are tabulated in the following way: Values on the horizontal axis represent the average of points given by managers of 20 Turkish contracting companies operating in the former Soviet Union. Figures in brackets along the vertical axis represent the standard deviation for each distribution, in other words indicate whether there was a consensus on that issue. The smaller the standard deviation is, the higher the consensus is.

According to the surveyed company managers, (1) timely delivery of projects, (2) mobility and cheapness of Turkish labor, and (3) relationship with clients are the most important strengths of Turkish contracting companies. The interesting result is that those three issues are the ones with the lowest standard deviations as well, i.e. highest consensus. On the other hand, (1) insurance applications and (2) Turkish government's support are assessed to be the major weaknesses, with the latter one having a very high standard deviation. Managers also tended to disagree on how beneficial the bilateral trade agreements were for the contracting services. An example is the natural gas agreement between Turkey and Russia, where Russia pays Turkish contractors through its natural gas sales to Turkey. Financial situation of individual companies was, by some managers, considered to be an important strength, and by others as a weakness. Thus, its standard deviation came out as one of the highest. As a conclusion, one can say that managers of the surveyed Turkish contracting companies tended to agree on their major strengths, but not on their potential weaknesses. But, overall their opinions have supported the author's conclusions about strengths and weaknesses of Turkish contracting companies.

FIGURE 2.19 Strengths and Weaknesses of Turkish Contracting Companies in the former Soviet Union - Self Evaluation by Surveyed Company Managers

(figures in brackets are standard deviations for each distribution)



Source: Questionnaire Results

* Central Asian Republics of the former Soviet Union

CHAPTER 3

FORMER SOVIET UNION MARKETS

In this chapter, firstly the political and economic situations of the former Soviet Union Republics are discussed. Then the construction industry is examined by (1) analyzing the industry attractiveness with 'Five Forces Framework' and 'Market Segmentation', and (2) classifying contractors from other countries, such as USA, Europe and Japan, according to various characteristics of them. Within the scope of this thesis, the author has focused on some of the republics of the former Soviet Union, and disregarded the ones that are not considered of being a near-future market due to serious political instability and overall economic weakness. The republics which are analyzed are: Russian Federation, Ukraine, Belarus, Azerbaijan, Kazakhstan, Turkmenistan and Uzbekistan. The republics which are left out of the analysis are: Estonia, Latvia, Lithuania, Moldova, Georgia, Armenia, Kyrgyzstan and Tajikistan.

3.1 POLITICAL AND ECONOMIC SITUATION OF THE FORMER SOVIET UNION REPUBLICS

The Russian Soviet Federative Socialist Republic replaced the Tsarist Russian Empire after the Bolshevik Revolution in 1917, and integrated most of the republics, such as Ukraine, Belarus, Central Asian and Caucasian Republics, into the Soviet Union (or USSR) in the early 1920's. From then until the end of the World War II, Russia, as a republic of the Soviet Union, steadily increased its power over the remaining republics of the USSR. After the World War II, political leaderships in these republics shifted from Russians to ethnic nationals, while strong political and economic influence of Moscow continued until the late 1980's. When the central communist system weakened, the nations comprising the union increasingly demanded independence. After the military

coup attempt by the communists failed in August 1991, the Communist Party was suspended, and all republics of the Soviet Union declared formal independence¹. Although later, 12 out of 15 former Soviet republics, excluding 3 Baltic States, established the Commonwealth of Independent States (CIS), this union was only formed to retain mutual cooperation.

The Russian Federation has been undoubtedly the dominant power in the former Soviet Union. Even after the break-up of the union, it maintained its close relationship to the other republics. Internally, Russian Federation had difficult times due to political instability since the end of 1991. The main reason behind this was that the conservative industrial lobby strongly opposed the radical economic policies introduced by the government in 1992. The referendum in April 1993 confirmed that the dominant ruling body was President Yeltsin, not the congress, and hence supported economic reforms. When the congress refused to accept the new constitutional framework announced by the president in September 1993, and tried to nominate another president, Yeltsin ordered the army to take over the parliament building in Moscow. In December 1993, the new constitution was approved by referendum, and Russia's first parliamentary elections were held. From then on, political stability was reset, although continuous organized crime has been a major problem.

Regarding the economy, the main issue was the move from the centrally-planned economic system of the former Soviet Union to a market economy. Policies were planned by the State Planning Committee (Gosplan) and controlled by the Politburo. All means of production, businesses and assets were owned by the state. The former system disregarded important criteria, such as efficiency and profitability, hence energy and raw material consumption for producing the same amount of products was a lot more than in the market economies of Western countries². Reforms under the names of '*Perestroika*

¹ Economist Intelligence Unit, Country Profile. Russia, 1993-94, p.4.

² Economist Intelligence Unit, Country Profile. Russia, 1993-94, p.15.

and Glasnost in the Gorbachev era were not launched fully, and thus had little positive effects on the economy. Late in 1993, with the political stability, more radical policies have been launched in order to reduce the high inflation rate and the budget deficit. However, GDP and industrial production, which have started to decrease in 1991, still continued to fall, and unemployment rose steadily. Yet the monthly inflation rate, which was 26% in August 1993 fell to 5% in June 1994³. On October 11th, 1994, the Rouble fell 22% against the dollar down to the rate of 3,900:\$1, and rebounded 25% two days later⁴. This event had enormous impacts on economic and political life in the country. Several ministers, and top bureaucrats were replaced by President Yeltsin. Rouble fluctuated around the rate 3,100:\$1, and the annual inflation rate was estimated to be a little over 200% in November 1994.

Regarding sectoral contribution to the economy, Russians traditionally used the concept of Net Material Product (NMP) instead of GDP. NMP excludes depreciation and the output of most services, such as personal transport, banking, insurance, health service and education, and thus the difference between GDP and NMP is about 40%⁵. However, recently reports on economic trends included both NMP and GDP figures. Industry accounted for 46% of NMP in 1992, especially with huge sectors of oil, natural gas, coal, and several metals. Since three quarters of Russia's land area is unsuited for agriculture, this sector accounted for only 13.4% of NMP in 1992, down from 19.9% in 1990. Figure 3.1 shows geographic location of the Russian Federation and the other former Soviet republics. Figure 3.2 gives basic demographic and economic data about these countries.

Having discussed the political and economic situation of the Russian Federation, outlook of the other former Soviet Union republics will be given briefly. *Ukraine*, which became a part of the USSR in 1922, has been strongly tied to the Soviet Union. After the

³ Economist Intelligence Unit, Country Report, Russia, 3rd quarter 1994, p.26.

⁴ The Economist, October 15, 1994, p.63.

⁵ Economist Intelligence Unit, Country Profile, Russia, 1993-94, p.17.

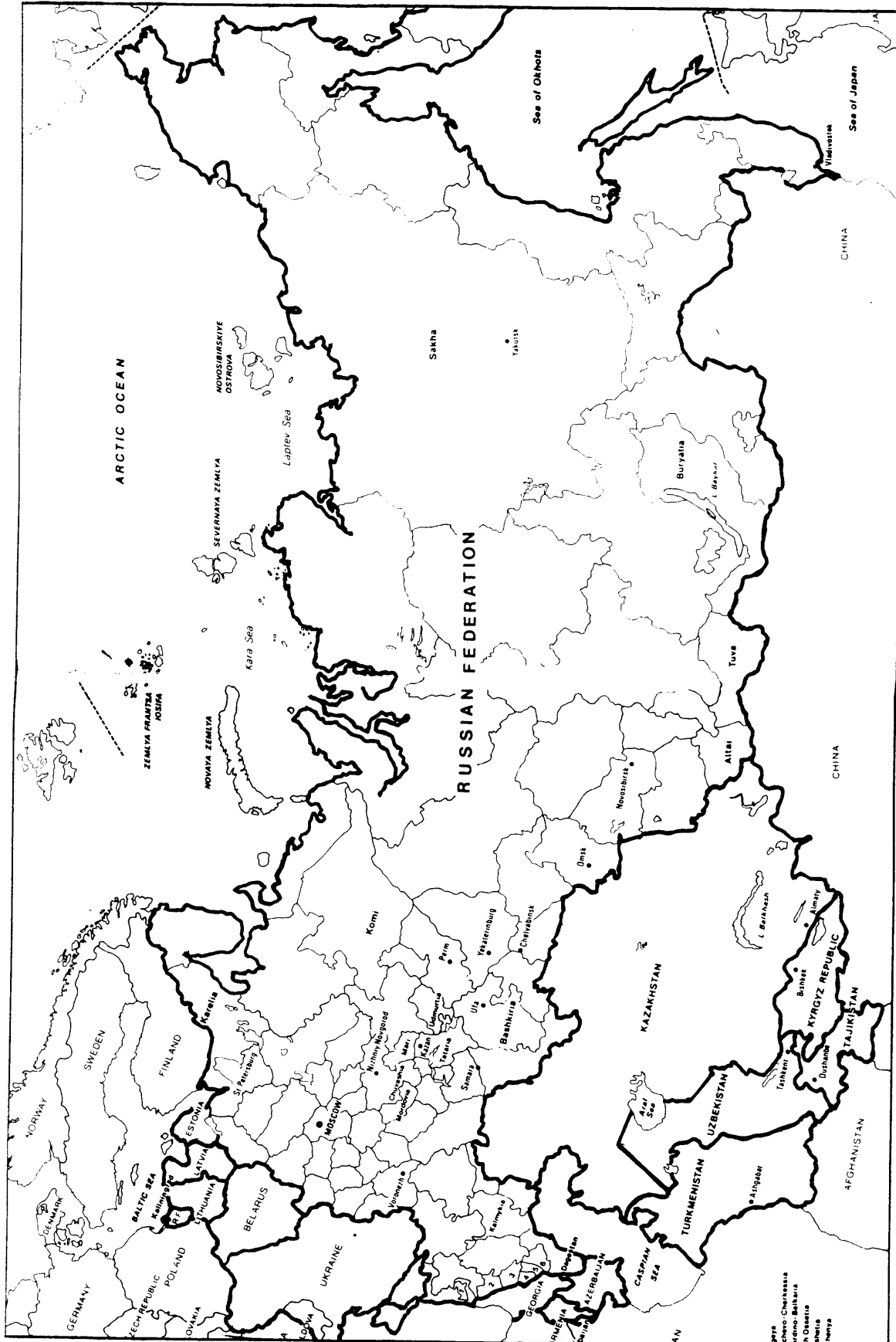


FIGURE 3.1 MAP OF FORMER SOVIET UNION REPUBLICS

Economist Intelligence Unit, Country Profile, Russia, 1993-94.

	Unit	Russian Federation	Ukraine	Belarus	Azerbaijan	Kazakhstan	Turkmenistan	Uzbekistan
Land Area	km ²	17,075,000	603,700	207,600	86,600	2,717,000	488,000	450,000
Population	million	148.6	52.0	10.2	7.2	16.9	3.8	20.9
Population Growth	%	0.4%	n/a	n/a	1.4%	n/a	2.5%	n/a
Population Density	persons per km ²	8.7	86.1	49.1	83.1	6.2	7.8	46.4
Urbanization	%	66%	n/a	n/a	54%	n/a	n/a	n/a
Languages	n/a	Russian, local languages	Ukrainian, Russian	Belarusian, Russian	Azeri, Russian	Kazakh, Russian	Turkmen, Russian	Uzbek, Russian
Measures	n/a	Metric	Metric	Metric	Metric	Metric	Metric	Metric
Currency	n/a	Rouble (3,100:\$1)	Karbovanet (52,000:\$1)	Belarusian Rb(26,800:\$1)	Manat (1,010:\$1)	Tenge (48:\$1)	Manat (60:\$1)	Som (11.5:\$1)
GDP (PPP)*	\$mill.	743,327	194,397	48,774	21,152	53,502	11,060	41,059
GDP per head	\$	5,000	3,700	4800	2,900	3,100	2,800	1,900
Industry as % of NMP**	%	46.0	51.0	47.1	51.2	40.6	20.4	28.5
Agriculture as % of NMP	%	13.4	23.0	24.0	31.1	47.7	46.2	35.9
Construction as % of NMP	%	13.5	15.0	12.1	8.6	5.9	18.1	13.0
Natural Resources and Economic Activity	n/a	Oil, natural gas, coal, metals, minerals, agriculture, heavy industry	Bitumen, coal, iron, meat and dairy, grain, vegetable, sugar	Potassium, heavy industry, machinery, electronics, construction materials	Oil, natural gas, coal, iron, cotton, grapes, vegetables, petrochemical	Chrome, metals, coal, oil, grain, wool, meat, metallurgy	Oil, natural gas, metals, cotton, grain, livestock, vegetables, chemicals	Oil, natural gas, coal, metals, cotton, silk, grain, textile, leather

Source: Economist Intelligence Unit, Various Country Profiles and Reports *Purchasing Power Parity. **Net Material Product

FIGURE 3.2 Basic Data about former Soviet Union Republics

break-up in 1991, Ukraine was one of the first countries to form the Commonwealth of Independent States (CIS) with Russia. Promising to be a non-nuclear state, the Ukraine started to dismantle its nuclear weapons, and thus received financial aid from Western countries. Although its large Russian minority has been quiescent, they might cause some problems as the country's relations with Russia grew tense in 1994⁶. With regard to the economy, the country has been an important agricultural producer for the USSR, with grain, meat and dairy outputs. Metallurgy, machine building, mining and steel-making are important sectors in industry. Efforts to restructure the economy have been not very effective, and the GDP has continued to decrease at a rate of 12% annually.

Belarus, which became part of the Soviet Union in 1919, suffered enormously during the World War II, when 80% of the country's towns and infrastructure was destroyed. While rapid industrialization and urbanization took place after the 1950's, the country was linguistically and culturally 'russified'⁷. After the break-up of the Soviet Union in 1991, Belarus, with Russia and Ukraine, formed the CIS. The country is for the reintegration of the former Soviet republics, mainly because its economy was highly integrated to that of the USSR. Industrial sector accounted for 47% of the country's NMP, machinery, military equipment, heavy transportation and chemicals being major sectors. Belarus exported 50% of its GDP to other former Soviet republics, and 70% of its raw materials came from other former Soviet republics. Thus, the break-up of the union had enormous negative impacts on the economy of Belarus. The inter-republican trade collapsed and the demand for Belarus's exports especially in Russia shrank. Thus, the country's GDP, like in other republics of the former Soviet Union, continued to fall significantly - more than 16% in 1993.

Azerbaijan, with the other Caucasian republics of Georgia and Armenia, became part of the Soviet Union in 1922. In the late 1980's conflict with Armenia over the

⁶ Economist Intelligence Unit. Country Profile. Ukraine. 1994-95. p.13.

⁷ Economist Intelligence Unit. Country Profile. Belarus. 1994-95. p.29.

autonomous region of Nagorniy Karabakh in Azerbaijan started. After the break-up of the union, the Nagorniy Karabakh conflict turned into a war, which continues until today. Several political leaders changed over that time, with a military coup in June 1993. Initially closely tied to Turkey, Azerbaijan entered back into the CIS in September 1993. The country's attempt to exploit its estimated revenues of 4bn barrels of oil in the Caspian Sea created political problems with Russia. Russia claimed that the Caspian Sea is a 'inland waterway' and not a part of the high seas. Accordingly, all republics bordering the Caspian Sea should agree on the exploitation of oil. Also, arguments on the transportation route of oil created additional problems with Russia, Iran and Turkey. With regard to its economy, Azerbaijan's industrial sector accounted for 51.2% of its NMP in 1992. Oil, natural gas, iron and other metals are major natural resources, where cotton, grape and vegetables are important in agriculture, which accounted for 31% of NMP in 1992⁸. Conflict on the Caspian Sea oil reserves remained as the major issue in the economy, and the decrease in GDP slowed down from a peak of 50% in 1992 to 8% in 1993.

Kazakhstan, which became part of the USSR in the mid 1920's, was used as a space launch and nuclear test site after the 1950's. In the late 1980's political stability was shaken due to independence demands by Kazakh nationalists. Since the break-up of the union, Kazakhstan has been stable mainly because of the tight grip of its political leader on the country. Although there is a large Russian minority living in the northern part of the country, no serious ethnic problems have occurred. With regard to its economy, Kazakhstan is geographically divided into two regions: the northern region with its heavy industry, and the southern region with its agriculture. Industrial sector, mainly oil, natural gas, metallurgy and minerals, accounted for 40.6% of NMP in 1992, whereas agriculture, mainly grain, wool and meat, accounted for almost 48% of NMP in the same year⁹.

⁸ Economist Intelligence Unit. Country Report. Azerbaijan. 3rd quarter 1994. p.9.

⁹ Economist Intelligence Unit. Country Report. Kazakhstan. 3rd quarter 1994. p.11.

Kazakhstan was probably the republic, which most radically launched economic reforms in 1992. Several state owned enterprises are started to be privatized in 1993, mainly by attracting foreign buyers. This proved to be successful in some cases, such as sale of margarine factories. However, GDP continued to decrease in 1993 (8%), and problems about the oil pipeline route from Kazakhstan remained unsolved during consulting group meetings between Kazakhstan, Russia, Turkey, Azerbaijan and USA.

Turkmenistan became part of the Soviet Union in 1924. After the break-up of the union in 1991 until today, the country experienced tight control by its political leader. Therefore, although democratization has been abandoned, political stability has been maintained. With regard to its economy, agriculture accounted for 46.2% of Turkmenistan's NMP in 1992¹⁰, with major products like cotton, grain and vegetables. Industrial sector accounted for only 20.4% of NMP, oil, natural gas and textile being major sectors in it. With regard to the exploitation and transportation of oil in the Caspian Sea, Turkmenistan faced similar problems to Azerbaijan. Although the government is keen to promote foreign investment, only little economic reform has been launched to privatize state owned enterprises. Turkmenistan's GDP, unlike in other former Soviet republics, recovered from its fall in 1992, it increased by 3% in 1993.

Uzbekistan became part of the Soviet Union in 1924. After the break-up of the union in 1991 until today, the political leader of the country held a very tight control. Poor human rights record and aggressive international relations, especially against its neighbors, Kyrgyzstan, were important issues until 1994. With regard to its economy, Uzbekistan is a major agricultural country. Agriculture and industry accounted for 36% and 29% of NMP, respectively, in 1992¹¹. Similar to other Central Asian republics, oil, natural gas, metals as well as cotton, silk, leather and textile are important sectors of the

¹⁰ Economist Intelligence Unit, Country Report. Turkmenistan, 3rd quarter 1994, p.17.

¹¹ Economist Intelligence Unit, Country Report. Uzbekistan, 3rd quarter 1994, p.19.

domestic economy. Privatization, especially of land ownership, is still not under consideration. In 1993 GDP continued to decrease with a rate of 8% annually.

As a conclusion, one can say that all the analyzed former Soviet republics are currently trying to recover from enormous political and economic change that occurred during the last 3 years. Political leaders favored tight controls on their countries, and some of them launched some radical economic reforms to restructure the economies. Although these reforms need more time to be fully effective, with vast natural resources these countries have the potential to develop rapidly in the near future. Figures 3.3 and 3.4 show comparative data about GDP and GDP per capita of these republics in 1993.

3.2 CONSTRUCTION INDUSTRY IN THE RUSSIAN FEDERATION AND OTHER REPUBLICS

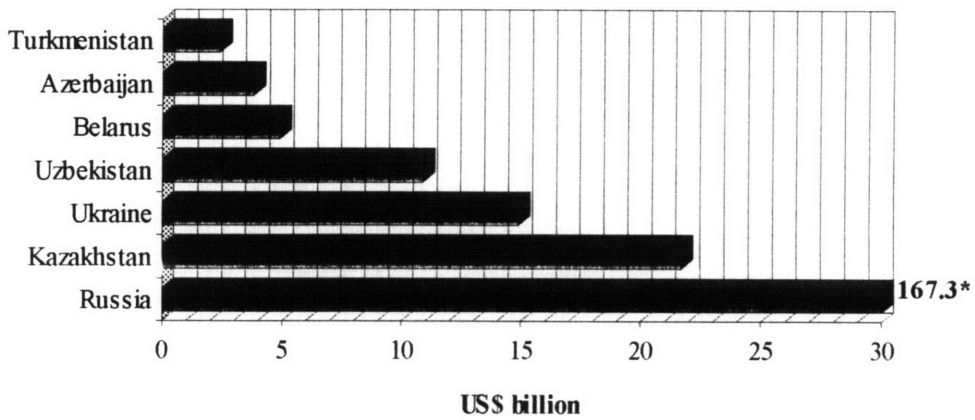
In this section, firstly an overview of the construction industry structure in the former Soviet Republics is given. Then the industry attractiveness will be analyzed using 'Five Forces Framework' and 'Market Segmentation'. Finally, foreign contracting companies operating in the former Soviet Union will be classified according to various characteristics of them.

3.2.1 Overview of the Construction Industry Structure

Since the start of extensive housing projects in the 1950's, construction industry activities accounted between 10 and 13% of the former Soviet Union's GNP¹². After the break-up of the union, this percentage stood stable while the GNP declined steadily. In 1993, construction industry accounted 13.5% of the Russian Federation's NMP (Net Material Product), and similar figures were valid for the other former Soviet Republics, varying from 6 to 18% depending on the country.

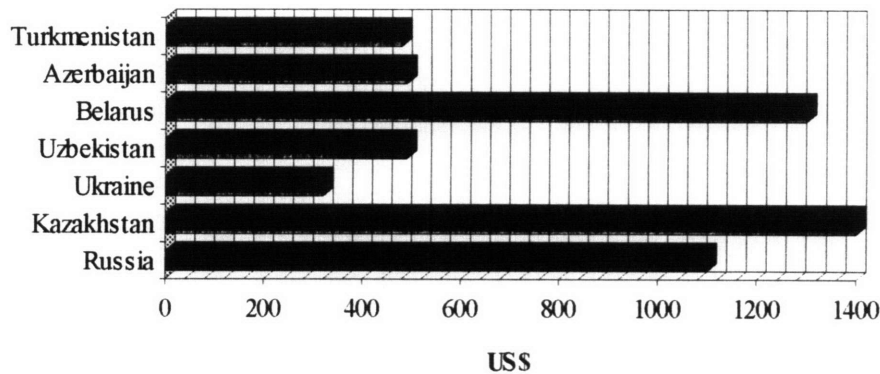
¹² European Construction Research, June 1994, p.31.

FIGURE 3.3 Former Soviet Union republics - GDP in 1993



Source: Economist Intelligence Unit, Country Report, Russia, 3rd quarter 1994. * Out of the chart

Figure 3.4 Former Soviet Union republics - GDP per capita in 1993



Source: Economist Intelligence Unit, Country Report, Russia, 3rd quarter 1994.

As any other industry in the former Soviet Union, construction industry was controlled by an enormous bureaucracy for 70 years. Every new construction project was the property of the state, and thus was not preceded by tendering opportunities or contractor bidding activities. Instead, under the five year Soviet central planning system, prices for construction were set in advance. Construction materials then would be distributed to each contractor based on the project assigned under the central plan. The

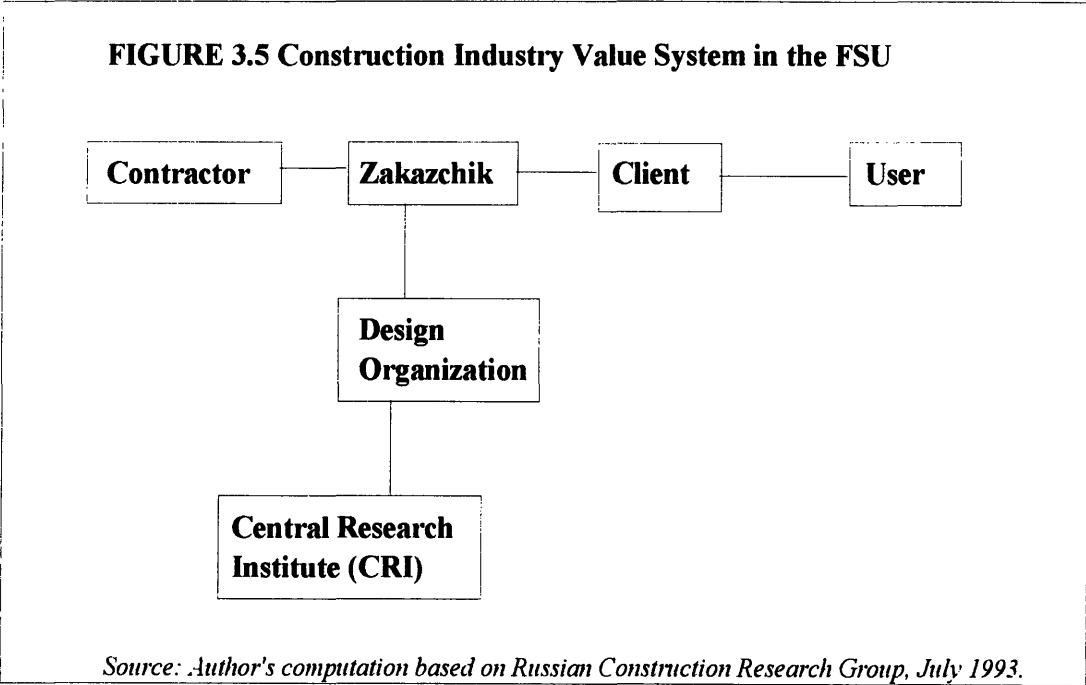
key role in the functioning of this system was the *Central Research Institute for the Economics and Management of Construction* (CRI). The Institute established the basis for construction costs in the former Soviet Union, by studying material and labor requirements for specific building types and locations. By 1984, the Institute had assembled an encyclopedic index containing close to 80,000 line items¹³, which was used by design organizations to determine costs of specific projects. According to these costs, certain material, labor and equipment were assigned to contractors for each project. Until January 1991, the prices of all items in the index remained frozen.

With regard to the construction process, main parties involved were clients, commissioners (*zakazchik*), design organizations, CRI and contractors. The clients for construction works in 1990 were about 90% state and co-operative enterprises, 8% farms and 2% individuals. Clients' role has been to decide what is to be built, arrange for financing, select advisors, designers and builders. However, most of these functions has been delegated to the *zakazchik*¹⁴, which in Russian means 'the person who commissions'. *Zakazchik* acted on behalf of the clients, thus contacted design organizations and builders, as well as controlled the supply of construction materials and supervised the construction process. However, neither the clients could choose the *zakazchik*, nor the *zakazchik* could choose the design organizations and builders. All of these were predetermined by the administrative structure. With regard to design organizations, public design offices undertook all the design work, although some private sector design offices have developed in the last 3 years. Design organizations, with data provided by the Central Research Institute, calculated construction cost of the project, and hence informed the *zakazchik* about material, labor and equipment requirements for the project. The *zakazchik* then supplied the contractor with the specified resources, and monitored the construction process. With regard to contractors, they were large-scale and vertically

¹³ Construction Market Intelligence: Russia. April/May 1994. p.2.

¹⁴ The Russian Construction Research Group. July 1993. p.23.

integrated state companies, called *trests*¹⁵. They produced prefabricated concrete panels, as well as erected them. Figure 3.5 shows the construction industry value system in the former Soviet Union.



As everything was predetermined by the administrative structure, there was no competition within the construction industry, hence efficiency of the construction process, and quality of the output were well below the international standards. Although economic reforms were launched after 1991, little change has occurred in the construction industry structure. Regarding clients, co-operatives increased their shares in the public sector, and both local and international private clients emerged especially in the residential and commercial market segments. Zakazchik continued to operate in the public sector, but with the new developments this term is also used for private individuals who invest and

¹⁵ The Russian Construction Research Group, July 1993, p.24.

develop construction projects. Also many foreign design, consulting and contracting companies entered the construction market.

3.2.2 Analysis of Construction Industry Attractiveness

In this section, firstly Porter's 'Five Forces Framework' will be used to determine the attractiveness of the construction industry in the former Soviet Union. Then, attractive market segments within the whole construction industry will be identified. Since most of the available data was related to the Russian Federation, rather than to other former Soviet Republics, the focus of this section will be the Russian Federation. However, where appropriate, comments will be made on specific issues with regard to other former Soviet Republics.

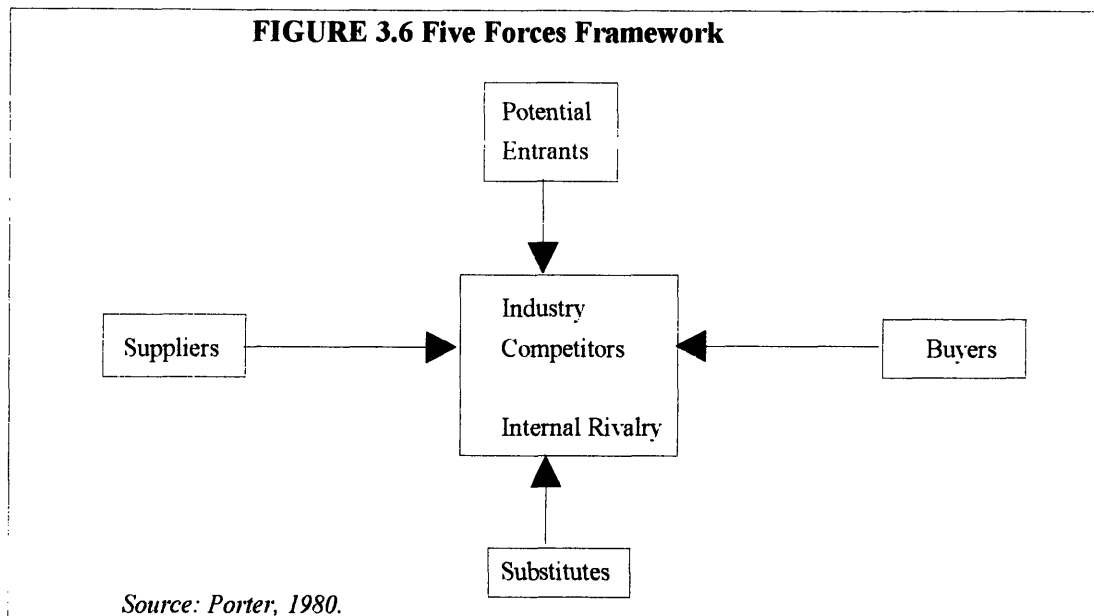
3.2.2.1 Five Forces Framework

Construction industry of the Russian Federation in early 1990's accounted for more than 60% of total construction in the former Soviet Union¹⁶. In order to analyze this industry, five competitive forces acting on it will be assessed - according to a framework introduced by Porter in 1980. These forces are: (1) power of buyers, (2) power of suppliers, (3) rivalry among existing firms in the industry, (4) threat of new entrants, and (5) threat of substitute products or services (see Figure 3.6). According to Porter, these five forces determine the industry profitability because they influence prices, costs and required investment of companies in an industry.

Power of Buyers. This is the bargaining power of clients against contractors operating in the Russian Federation. Before assessing this power, one has to differentiate between local and foreign clients in the Russian Federation. Local clients are usually state enterprises with little financing capability due to overall status of the domestic economy. Foreign clients have a significantly better financing capability for construction projects.

¹⁶ European Construction Research, June 1994, p.31.

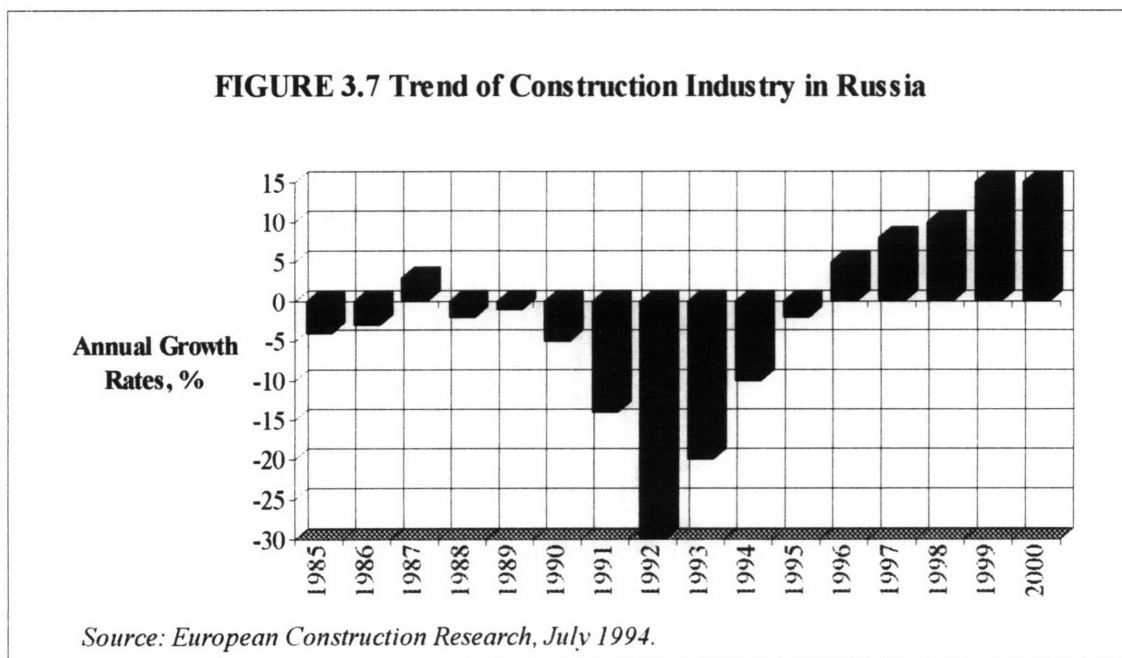
There are several factors to be considered in order to measure the level of buyer's power. The first one is the overall demand for construction activities in the Russian Federation, which is remarkably high given the poor infrastructure and shortage of housing.



Although the size of the construction market has declined since 1990, it is expected that it will start to bounce back after 1994. The European Construction Research (ECR) in collaboration with the Center for Construction Market Information (CCMI), has estimated that the construction industry in Russia will be starting to grow after 1995¹⁷. Figure 3.7 illustrates the actual trend of the construction industry from 1985 to 1993, as well as estimated trend until the year 2000. Accordingly, construction activities in Russia have declined 30% in 1992 and 20% in 1993, but it is estimated that the annual growth of the construction industry will be a positive rate, increasing steadily after 1996. Another important factor for determining the buyer's power is the ability of clients to vertically backward integrate, that is to undertake their construction projects by themselves. Although several state enterprises do have the capabilities of undertaking their own

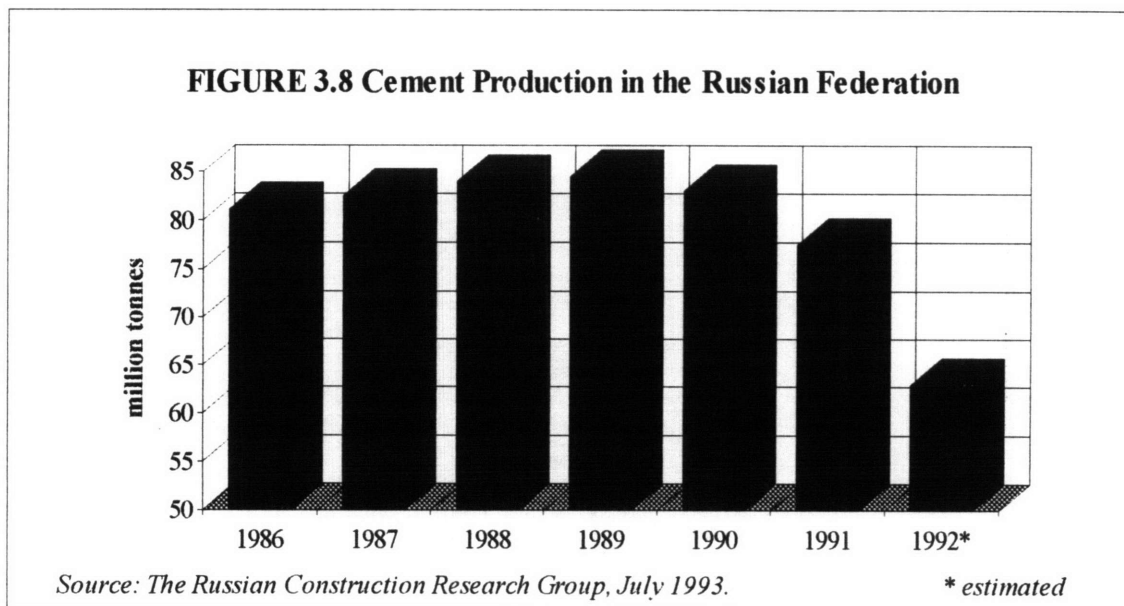
¹⁷ European Construction Research, June 1994, p.33.

construction projects, efficiency, speed and quality issues make the foreign contractors the first choice. Another factor is the ability of the industry to vertically forward integrate, that is the development and financing of construction projects by contractors. This issue is highly considerable in the housing and commercial market segments, where mostly foreign contractors develop residential and office buildings in large cities of the Russian Federation. As a conclusion, the power of clients against contractors is assessed to be medium.



Power of Suppliers. This is the bargaining power of material suppliers and subcontractors against contractors operating in the Russian Federation. With regard to the supply of construction materials, this has been deficient both in quality and quantity. Because of the central planning and allocation system in the former Soviet Union, there has been no price mechanism to control the relationship between the demand for materials and their supply. Although the volume of the construction industry has declined more than the production of construction materials, currently shortages of materials occur from

time to time. The main reason behind is that several construction materials came to Russia from other former Soviet republics, and now this trade is disrupted. Examples of such materials are: steel from Kazakhstan and Ukraine, electric wires and components from Armenia and the Baltic, motors for lifts from Ukraine, etc¹⁸. However, these materials shortages hardly affect the foreign contractors because they import the major portion of the required construction materials. 'Construction Market Intelligence: Russia' states this fact clearly: "The easy answer [to the problem of material sourcing, quality and reliability], which many Western companies continue to adopt, is to import all but the most basic materials¹⁹." According to the questionnaire results presented in the previous chapter, Turkish contractors operating in the former Soviet Union support this fact, too. They, on average, import 69% of all construction materials, with 43% from Turkey and 26% from third countries (see Figure 2.17). Major materials obtained from local sources are sand, gravel, cement, bricks and timber, which in terms of quality are closest to their international standards. As an example, Figure 3.8 shows the cement production in the Russian Federation, where almost all construction materials had similar trends.



¹⁸ The Russian Construction Research Group. July 1993. p.31.

¹⁹ Construction Market Intelligence: Russia. October/November 1994, p.7.

Another important issue related to construction materials is the volatile behavior of their prices. Because price of fuel was enormously low and also fixed in the former Soviet Union, production facilities for construction materials were set up in a small number of locations, and then transported all across the republics. Now with the rising price of fuel, several construction materials' prices are functions of cost of fuel needed to deliver the material to the site. Also, seasonal oversupply of some materials cause their prices to decline temporarily, mostly in the winter, when construction activities slow down. All of these factors combined with the high level of inflation, makes the construction material prices very volatile and very difficult to predict. As a good example, the price of common brick in Russia is shown in Figure 3.9. However, foreign contractors again are significantly hedged against this risk because they import most of the required construction materials.



With regard to the subcontracting activities in the Russian Federation and the other former Soviet Republics, the scenario is similar to that of construction materials.

Inefficiency, low quality of output and long delivery times are common characteristics of local subcontracting companies. Again, foreign contractors are subcontracting most of the activities to companies from their own nation or from third countries. According to the questionnaire results, most of the Turkish contracting companies are subcontracting excavation, foundation and glasswork activities to local companies in the former Soviet Union, mostly on a labor plus material basis. The majority of activities, such as concrete, steel, HVAC, electrical works as well as ceiling and floor finishes are either undertaken by the company itself, or subcontracted to Turkish companies.

As a conclusion, with regard to local suppliers and subcontractors in the former Soviet Union, power of suppliers is assessed to be low in spite of temporary material shortages. The main reason is the purchasing power of foreign contractors against local suppliers and subcontractors. With regard to the foreign suppliers and subcontractors used in projects, every nation has different characteristics. Specifically, Turkish material suppliers and subcontractors do not have a high bargaining power against Turkish contractors mainly due to the shrinking domestic market in Turkey.

Intensity of Rivalry among Existing Firms in the Industry. Similar to any other construction industry in the world, the construction industries in the former Soviet Republics are highly fragmented, that is there are a large number of competitors with minor market shares. This, obviously, decreases the industry profitability, but it is a general characteristic of the construction industry that differentiates it from other industries with small number of players and high market shares. The construction industry in Russia and the other former Soviet Republics is truly fragmented, with many local companies as well as hundreds of foreign companies from a variety of countries. As an example, just from Turkey there were about 30 contacting companies operating in the former Soviet Union in 1993.

Another important factor in determining the intensity of rivalry is product differentiation. In an industry without product differentiation, there is a 'commodity

syndrome', or in other words: "... no one can legitimately claim that what it is offering to its customers is superior to an equivalent offering from other competitors²⁰." In such industries, price of product/service is the sole buying criterion. With regard to the construction industry in the former Soviet Union, the product differentiation is assessed to be low. Although there are differences among the products offered by different nations' contractors (in terms of quality and delivery time), price is still the major buying criterion because of low financing capabilities of clients - usually local state enterprises.

As a conclusion, the intensity of rivalry between existing contracting firms in the former Soviet Union is assessed to be high.

Threat of New Entrants. Until the end of 1980's, the construction industry in the former Soviet Union has been served mainly by local contractors and foreign contractors from the East Block, such as Romania, Bulgaria, Yugoslavia, Poland. Finnish contractors were the only major Western companies operated in the FSU, due to the historical ties between former Soviet Union and Finland²¹. After the break-up of the union in 1991, many contractors from Austria, Germany, Turkey and Italy entered the market rapidly, whereas companies from UK, US and France took a more conservative approach. Due to political risks and lack of financing, many British, American and French contractors preferred to postpone their entries into the FSU market. Although political links between governments play an important role in entry strategies, any contractor with a financing capability can enter the construction market in the former Soviet Union relatively easily. Hence, threat of new entrants into the industry is assessed to be medium to high.

Threat of Substitutes. As in other construction industries in the world, there is no real substitution for the products/services offered by contracting companies. However, with regard to construction industry in the former Soviet Union, there are two important issues to consider. The first one is the huge demand for renovation and rehabilitation of

²⁰ Hax and Majluf. 1991. p.39.

²¹ The Finnish Foreign Trade Association, 1991. p.6.

existing buildings and infrastructure, as a substitution for new construction. Renovation of residential and hotel buildings in Moscow and St. Petersburg are becoming more popular. World Bank has given a loan of \$300 million to Russia in 1993, to be used in rehabilitation of existing highway network. The second issue is the possibility of innovative contract strategies that can be substitutes to general contracting activities in the former Soviet Union. Design/build seems to be an important contract type, given the lack of good local design and engineering firms. On the other hand, BOT type contracts are not considered to become highly popular due to uncertainties in related legislation. As a conclusion, overall there is no real substitution for construction services offered in the former Soviet Union.

Figure 3.10 is the summary of results of 'Five Forces Framework'. The overall industry attractiveness is assessed to be high, having summed the effects of five forces on the construction industry in the former Soviet Union. Therefore, one can conclude that firms operating in this industry can earn attractive returns due to the structural characteristics of the industry.

FIGURE 3.10 Construction Industry Attractiveness in the FSU

Five Forces		Industry Attractiveness					
		Very Low	Low	Medium	High	Very High	
Power of Buyers	<i>High</i>						<i>Low</i>
Power of Suppliers	<i>High</i>						<i>Low</i>
Internal Rivalry	<i>High</i>						<i>Low</i>
Threat of New Entrants	<i>High</i>						<i>Low</i>
Threat of Substitutes	<i>High</i>						<i>Low</i>
Overall Assessment							

With regard to the attractiveness of the construction industry in the former Soviet Union, also opinions of Turkish contractors on that matter will be discussed briefly. The questionnaire that was completed by 20 Turkish contracting companies (see the Appendix, question 30) also contains a question, in which the managers of those companies were asked to assess the construction industry attractiveness in the FSU. The answers are analyzed in the following way: For each of the competitive forces, 'very high' corresponds to 1 point, and 'very low' corresponds to 5 points. Accordingly, averages as well as standard deviations are calculated for each competitive force to be assessed in the question. The results are presented in Figure 3.11.

**FIGURE 3.11 Construction Industry Attractiveness in the FSU
Opinion of Turkish Contractors**

Five Forces		Industry Attractiveness					
		Very Low	Low	Medium	High	Very High	
Power of Buyers	<i>High</i>	(3.87)					<i>Low</i>
Power of Suppliers	<i>High</i>	(4.45)					<i>Low</i>
Internal Rivalry	<i>High</i>	(3.81)					<i>Low</i>
Threat of New Entrants	<i>High</i>	(3.84)					<i>Low</i>
Alternate Contract Types	<i>High</i>	(4.79)					<i>Low</i>
Renovation	<i>High</i>	(3.97)					<i>Low</i>

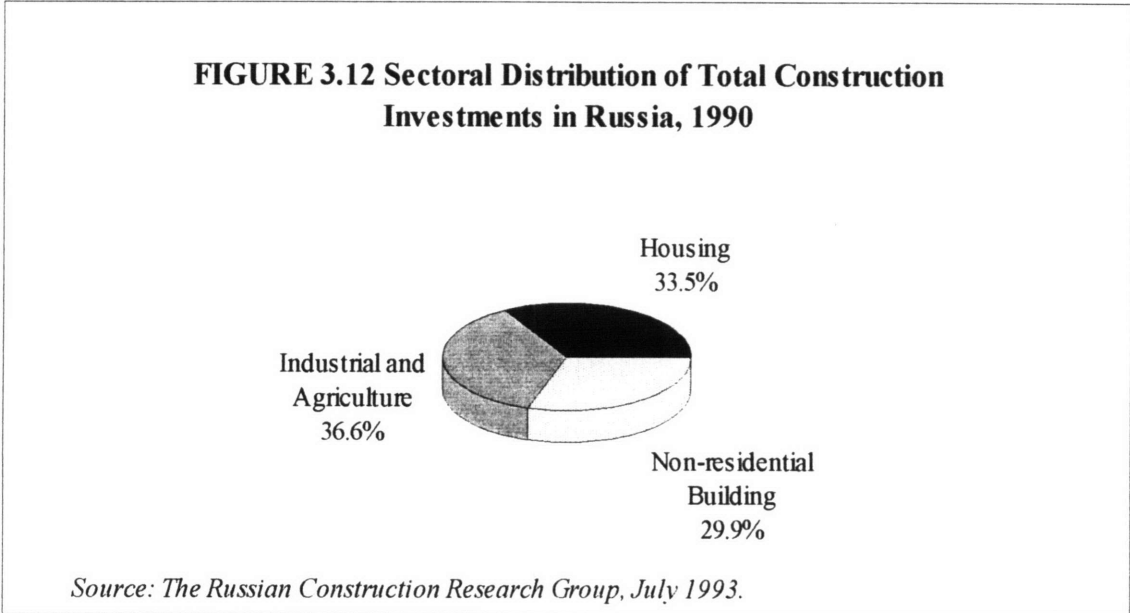
Source: Questionnaire Results (figures in brackets are standard deviations for each distribution)

Comparing Figures 3.10 and 3.11, one can see that Turkish contractors' opinion on the attractiveness of the construction industry in the FSU, overall support the author's findings. Note the different labels used in the last two rows of the two figures. Looking at the standard deviations, there is a high consensus with regard to internal rivalry and threat of new entrants. Managers of surveyed Turkish contracting companies agreed, to the

least extent, on the possibility of innovative contract types (such as design/build and BOT) becoming alternatives to general contracting in the former Soviet Union.

3.2.2.2 Market Segmentation

With regard to the total construction investment in the Russian Federation in 1990, Figure 3.12 indicates its sectoral distribution. Accordingly, general building, including housing and non-residential buildings (such as tourism, commercial, educational, health), accounted for about 63% of investments.



This figure is enormously high when compared to its equivalents in Western countries. For example, 9.2% and 10.5% of all contracts undertaken by top 400 contractors in the US were in the general building market in 1992 and 1993, respectively²². The reason for such a high figure in the Russian Federation is obviously the shortage of buildings, especially housing. In other republics of the former Soviet Union, the situation is similar

²² ENR, May 23, 1994, p.41.

to the Russian Federation. Thus, in this section, four major market segments will be analyzed, namely housing, commercial, tourism and industrial construction.

Housing construction. Since the 1920's residential construction was promoted by state 5-year development plans. But because residential construction output never caught up with population growth and migration to large industrial cities, shortage in housing has always been a problem in the former Soviet Union²³. This situation is even worsened by the housing need for the former Soviet Army returning from posts in the Eastern Europe. During 1990-91, the German Government has funded such housing projects, worth of DM7.8 billion (\$5 billion), for the Soviet Army personnel returning from the then East Germany. These projects were located not only in the Russian Federation, but also in Ukraine and Belarus. As a result of housing shortage, many families shared their flats with other families or relatives, and it is estimated that in the early 1990's 17 million people in Russia lived in accommodation where space per person was less than 5m² (approximately 50 square feet)²⁴.

A National Housing Program was approved by the Presidium of the Russian Government in March 1993, which covered several reforms in the housing sector. Accordingly, it was proposed to increase annual housing output from 37.9 million m² of usable space in 1992 to 50 million m² in 1995 and to 70-100 million m² by year 2000. Also, changes in the structure of housing sector, in terms of type of ownership, sources of financing and types of buildings, were aimed in the Housing Program.

With regard to this expected growth in the housing construction in the Russian Federation, European Construction Research (ECR) has estimated two different trends for the future. Firstly, the old style of high-rise housing, constructed of prefabricated concrete elements, will continue mainly due to its cheapness and speed of construction process. This will be mostly publicly financed, in order to rapidly decrease the current

²³ European Construction Research. June 1994. p.38.

²⁴ The Russian Construction Research Group. March 1994. p.15.

housing shortages. Secondly, higher quality low rise buildings and single family housings will get popular, but only for those who can afford it. Both local private developers and foreign investors are expected to be the major sources of financing in these projects. Although the legal rights of clients and developers are poorly defined, real estate markets in Moscow and St. Petersburg are rapidly growing²⁵.

Figure 3.13 shows the need for housing in different regions of the Russian Federation until year 2000. West Siberia and Urals (see Figure 3.1: north of Kazakhstan) are the regions with highest housing needs since there are many growing industrial cities in these regions. Also North Caucasus and Center Region, including Moscow, have high residential construction needs until year 2000.



Overall, housing sector of the construction industry is a highly attractive segment, with enormous potential growth. Although general financing problems apply to this segment too, the Russian Government is giving priority to the sector. Also, local private

²⁵ National Governors' Association, Moscow Office. August 4, 1994, p.3.

and foreign firms are taking significant roles in developing housing projects, both as new construction and renovation, especially in large cities.

Commercial and Tourism Segments. With regard to commercial buildings segment, office construction for rental purposes is a relatively new concept in the Russian Federation as well as in other former Soviet Republics. Until the late 1980's the state was both the builder and the owner of office buildings. However, after the break-up of the Soviet Union, a certain amount of investment, mostly from foreign companies, initiated the office construction market segment. Although these were mostly small scale projects, since then office construction has not been sufficient to meet the demand²⁶. The renovation of existing office buildings has been and still is a major alternative to new construction for several reasons. Firstly, it is a quicker way of supplying adequate office premises than new construction. Secondly, lack of suitable building sites in city centers for new construction, especially in Moscow, is a major problem. Additionally, because renovation requires a smaller amount of investment, developers prefer it in the risky market environment.

Also, retail shops and buildings are mostly renovated for use in large cities like Moscow and St. Petersburg. Overall, the commercial market segment is attractive, but relatively to the housing sector, it is significantly smaller scale and limited to large cities.

With regard to tourism segment of the construction industry, Russian hotel accommodations have historically been in short supply²⁷. After the opening of the Soviet Union, however, the number of foreign visitors to the Russian Federation has declined steadily due to political instability. The share of business travelers increased during that time, which is expected to continue as long as political instability continues in the Russian Federation. On the other hand, the domestic tourism sector grew significantly mainly during the same period. In 1993, about 7 million foreign visitors came to Russia, whereas

²⁶ European Construction Research, June 1994, p.48.

²⁷ National Governors' Association, Moscow Office, May 25, 1994, p.5.

this figure is estimated to increase up to 50 million in the long term. Among the regions, Moscow area and the Black Sea Coast are most popular. Moscow attracts both business and holiday travelers, whereas the Black Sea Coast is mainly for latter ones. The Black Sea region has a Mediterranean climate, and thus, a rapid development of tourism sector is expected in this region. Overall, tourism sector offers construction projects that are larger scale and more geographically spread than the commercial segment. However, in comparison to the housing construction, tourism segment is significantly less attractive.

Industrial construction segment. Given the large scale Russian and foreign investments in the oil and gas industry, this segment will maintain, until the year 2000, about 30% share in the Russian construction industry²⁸. Natural gas production in Russia is approximately 640 billion m³ per year, of which about 100 billion m³ is exported. Also other Soviet republics, such as Azerbaijan, Turkmenistan and Uzbekistan, are natural gas producers, but 90% of all reserves in the former Soviet Union are Russian now, mostly in West Siberia and around the Caspian Sea. The major problem in this industry is the lack of sufficient pipelines, especially for exports to Europe. Germany, Italy and France are among the largest buyers of natural gas in Europe. Therefore, additional pipeline requirements both from the Russian Federation and other republics to Europe will be creating significant amount of industrial construction projects.

Similarly, the oil industry in the former Soviet Union is a huge one, with 350 million tonnes of oil production only by the Russian Federation in 1993. Countries around the Caspian Sea, like Azerbaijan, Kazakhstan and Turkmenistan have also significant oil reserves, mainly offshore. Russia, on the contrary, has reserves all across its land area, from the Caspian Sea in the south to the Arctic Sea in the north, and to the Sea of Japan in the east (see Figure 3.1). Joint ventures between Russian oil producing associations and Western companies are active in exploration, production and transportation of oil in

²⁸ European Construction Research. June 1994. p.62.

the former Soviet Union. Both oil and gas industry offer construction projects that are very large scale and are affected enormously by inter-governmental relations between former Soviet and Western countries.

With regard to light industrial construction, food, machine and automobile industries are the major ones. These offer relatively smaller scale projects, but still are attractive segments of the industry. In comparison to oil and gas industries, they receive very small local and foreign investments, thus financing of projects is a significant problem.

In addition to the above discussed sectors of housing, commercial, tourism and industrial, other market segments like hazardous waste and transportation are also potential areas for construction. However, especially compared to housing and industrial construction requirements, they have a less priority in terms of investments from local and foreign companies.

3.2.3 Classification of Competitors in the former Soviet Union

In this section, foreign contracting companies that are operating in the former Soviet Union will be analyzed, by comparing them with regard to five different criteria. These criteria are as following:

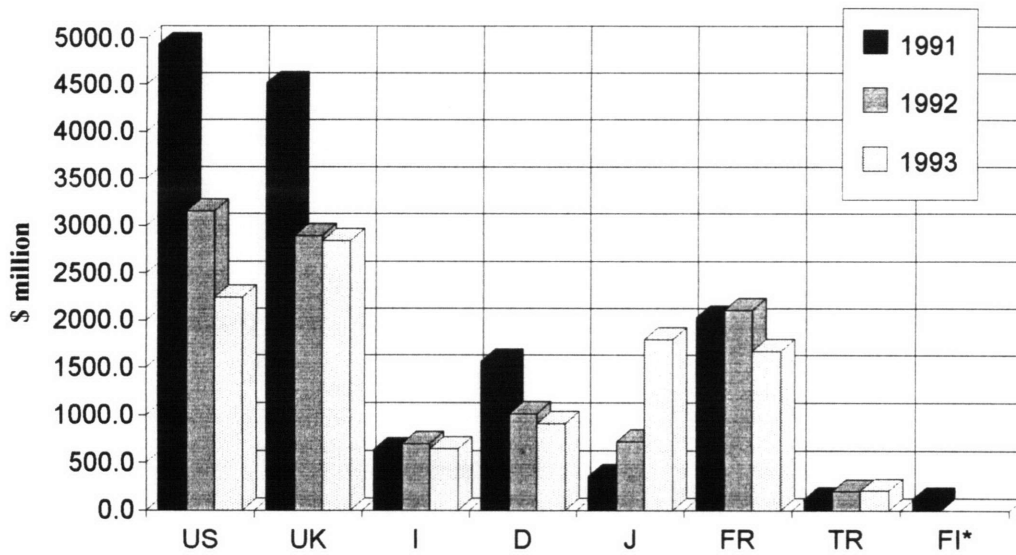
- (1) Company size measured by values of annual international and total contracts;
- (2) Degree of internationalization measured by the annual "international/total contracts" ratio of the company;
- (3) Specialization measured by number of market segments in which the company operates (e.g. general building, industrial/petroleum, transportation, sewer/waste, etc.);
- (4) Geographical diversification measured by number of countries in which the company operates;
- (5) Design capability of the company.

In order to carry out such an analysis, 'Top International Contractors' lists published by the Engineering News Record were used. All the contracting companies that have operated in the former Soviet Union from 1991 until 1994 were identified, and hence analyzed according to the above mentioned five criteria. The results are represented graphically, and comments are made for each nation's contracting companies accordingly. Figures 3.14 and 3.15 illustrate the result of analysis made regarding the first criterion, namely the size of the companies. Figures 3.16 through 3.18 show the results of analysis made with regard to second and third criteria in a matrix form. Figures 3.19 through 3.21, similarly, indicate the results of analysis using third and fourth criteria. Finally, Figure 3.22 illustrates the design capabilities of the contractors, the fifth criterion.

American contracting companies (US). US contractors are among the largest companies that are operating in the former Soviet Union. With regard to their degree of internationalization, some of them are highly dependent on international work, such as Bechtel, Brown & Root, Kellogg, ABB and Fuller. Others like Kaiser, Perini and Benham, however, are mostly focused in domestic construction work. Thus, one can not find a common behavior among US firms with regard to degree of internationalization. The same argument is also valid in relation to number of different markets served. Some, like Litwin and McDermott, specialize on certain market segments, whereas others, such as Bechtel, operate in a variety of sectors (see Figures 3.16 through 3.19). However, overall, the most served market segments by US companies operating in the former Soviet Union are found to be sewer/waste, industrial/petroleum and hazardous waste.

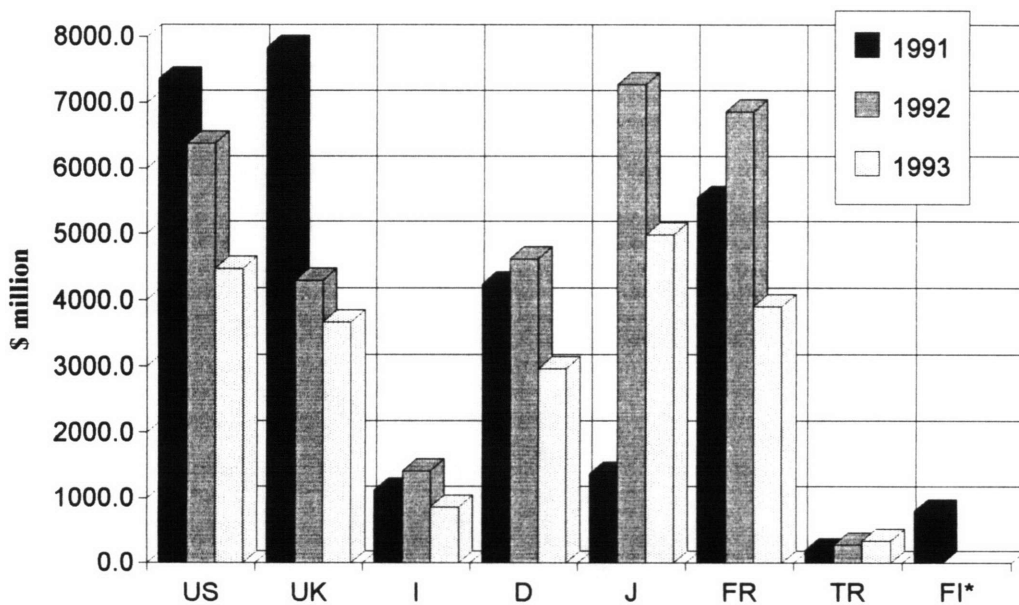
With respect to geographical diversification, US firms are among the most diversified ones, ranked behind the French and the Germans. About 70% of the US contracting companies that have been operating in the former Soviet Union since 1991, had design capabilities. This figure is the highest among all other nations' contractors (see Figure 3.22). Overall, competitive advantages of US contractors are considered to be their highly effective corporate and project level management capabilities, technological

FIGURE 3.14 Top International Contractors in the former Soviet Union - Average Value of International Contracts



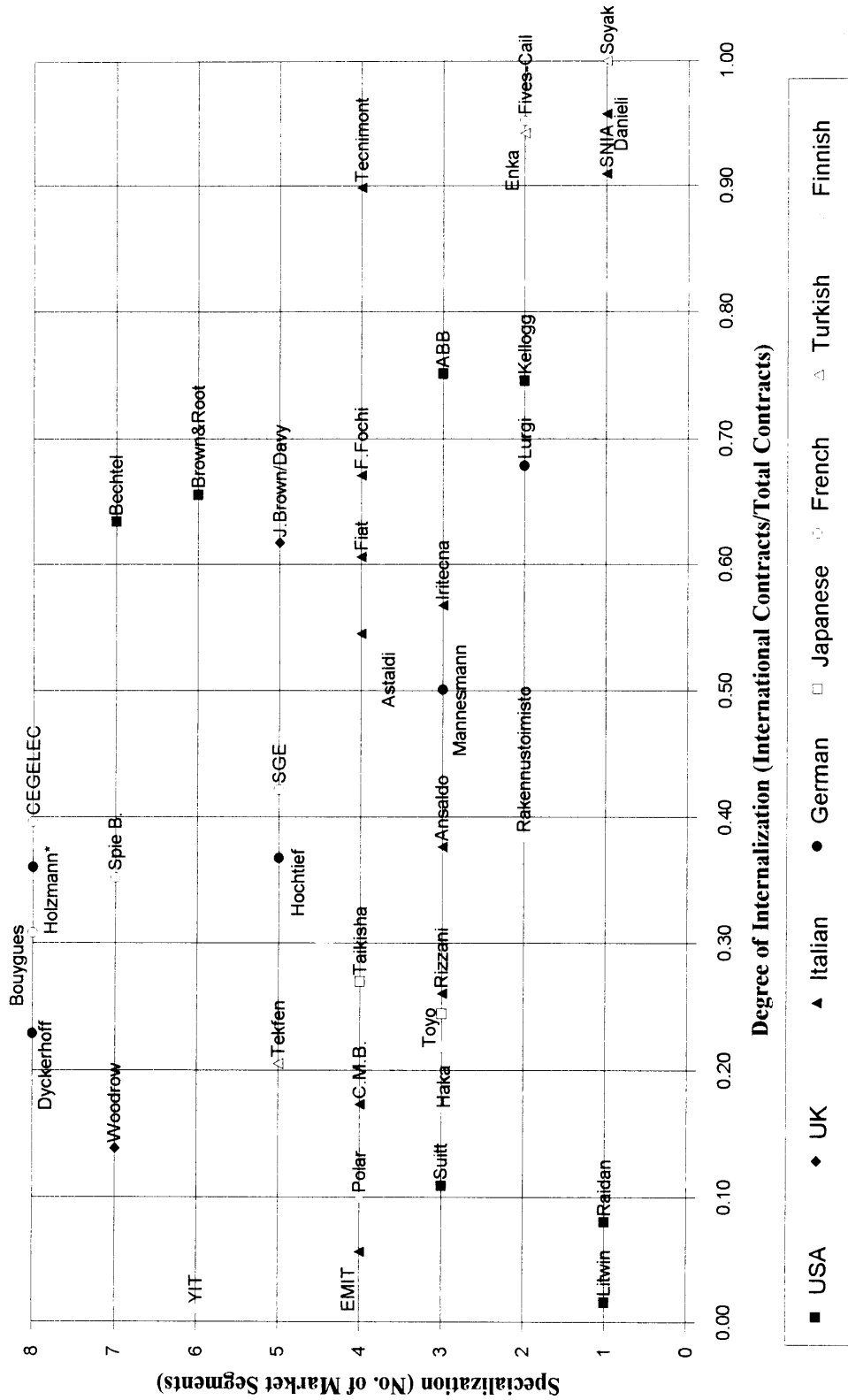
Source: Author's calculations based on data from various ENR issues. * no data in 1992, 1993.

FIGURE 3.15 Top International Contractors in the former Soviet Union - Average Value of Total Contracts



Source: Author's calculations based on data from various ENR issues. * no data in 1992, 1993.

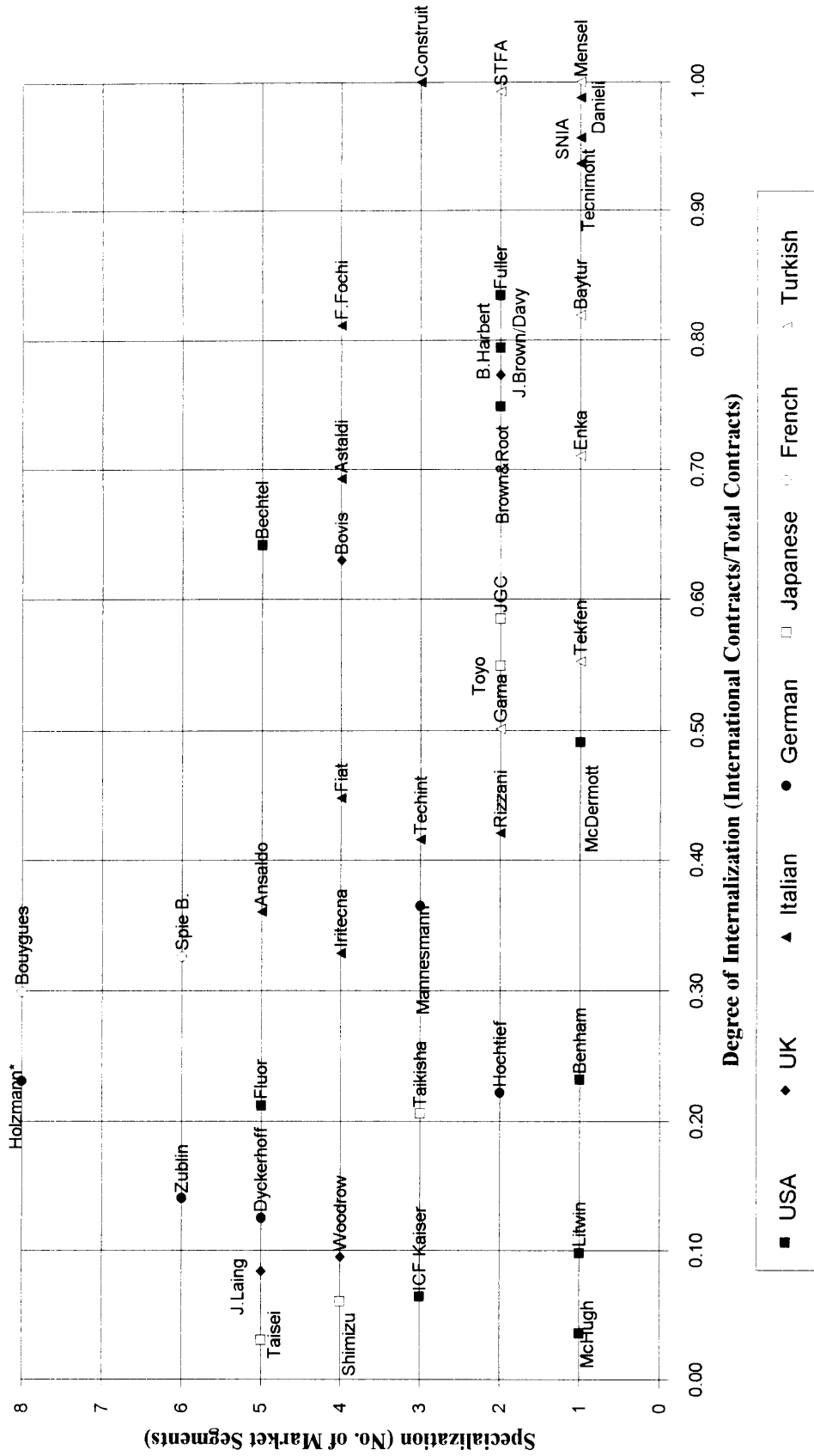
FIGURE 3.16 Top International Contractors in the former Soviet Union - 1991



Source: Author's calculations based on data from ENR, August 24, 1992.

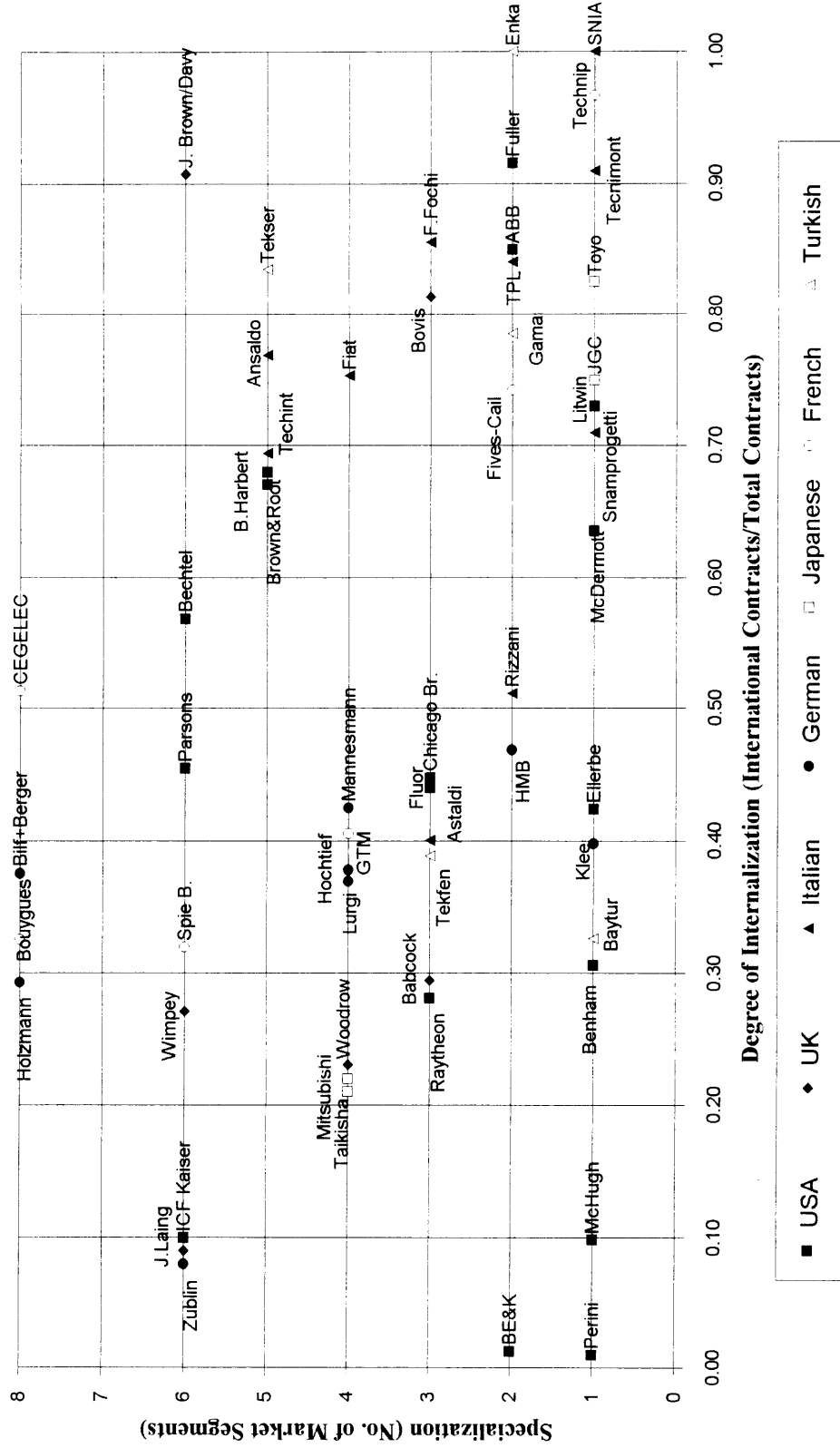
* estimated

FIGURE 3.17 Top International Contractors in the former Soviet Union - 1992



Source: Author's calculations based on data from ENR, August 23, 1993. * estimated

FIGURE 3.18 Top International Contractors in the former Soviet Union - 1993



Source: Author's calculations based on data from ENR, August 29, 1994.

leadership, highly developed domestic market, and support from US design and consulting firms²⁹. On the other hand, their relatively higher cost compared to developing countries' contractors, and lack of full-scale government support are major weaknesses.

British contracting companies (UK). British contracting companies are among the largest firms that are operating in the former Soviet Union (see Figures 3.14 and 3.15). With regard to degree of internationalization, some firms like John Brown/Davy and Bovis are concentrated on international work, whereas others, such as Laing, Wimpey and Woodrow are focused on domestic contracts. All of the British contractors that operate in the FSU are serving relatively large number of market segments, however not as much as the Germans and the French do. Therefore, looking at Figures 3.16 through 3.19, one can see that they are spread in the upper half of the matrices. Among most served sectors are transportation, general building, and industrial/petroleum. In relation to geographical diversification, British firms, except John Brown/Davy, are found to be 'medium level' diversified, since they operate in approximately 10-20 countries worldwide.

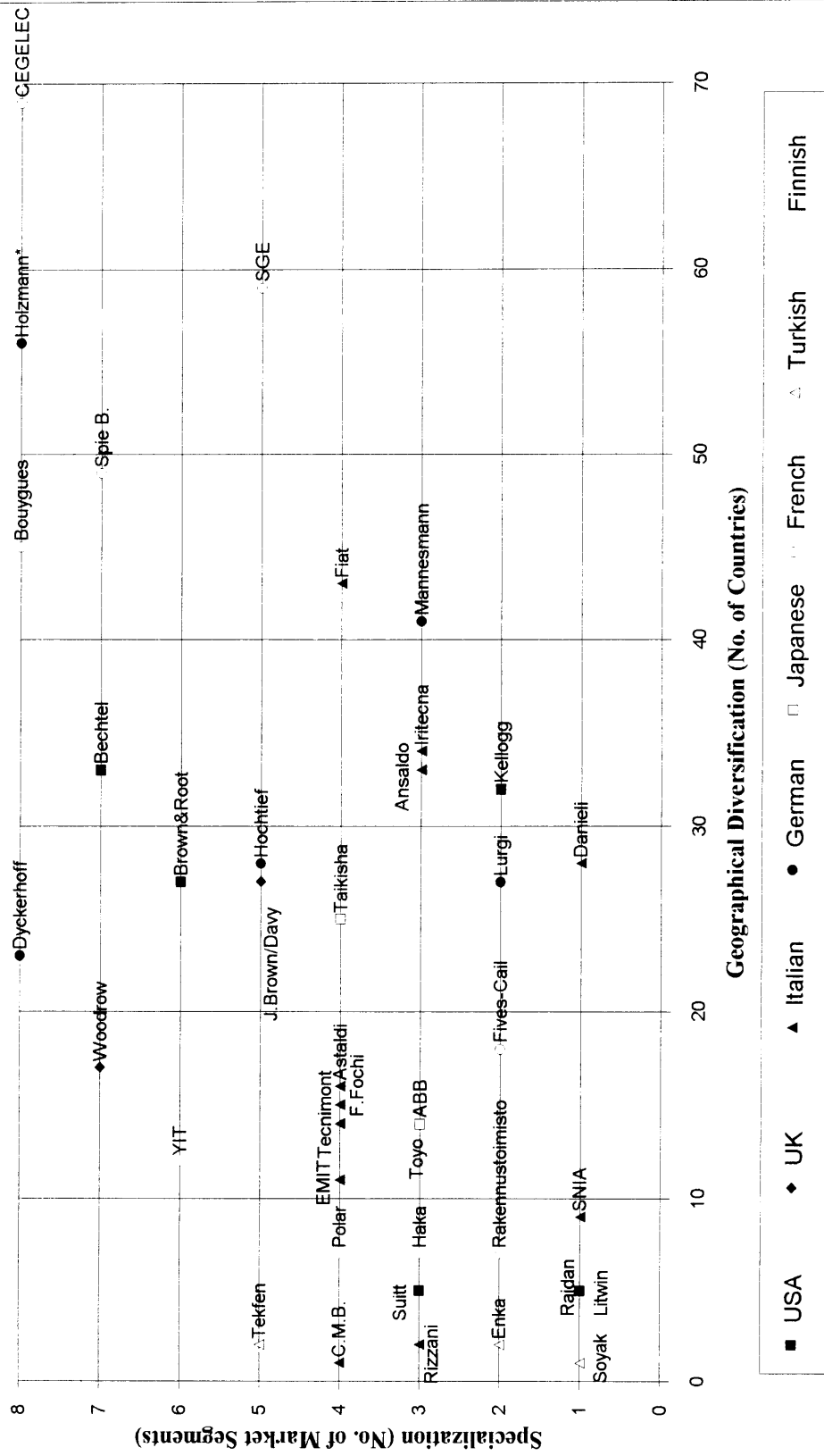
Overall, strengths of British contracting companies are the enormous support from national design and consulting firms with overseas activities, political and diplomatic links with ex-empire countries, innovative construction and project management capabilities³⁰. Risk averse attitudes in entering into new markets, and relatively higher costs than developing countries' contractors are major weaknesses of British contracting firms.

Italian contracting companies (I). These companies are the smallest size firms, after the Turkish and Finnish, that have been operating in the former Soviet Union since 1991. Looking at Figures 3.16 through 3.19, we can see that, with few exceptions like Ansaldo and Rizzani, all Italian contracting companies are located in the lower right

²⁹ Seymour, 1987, p.170.

³⁰ Strassmann and Wells, 1988, p.251.

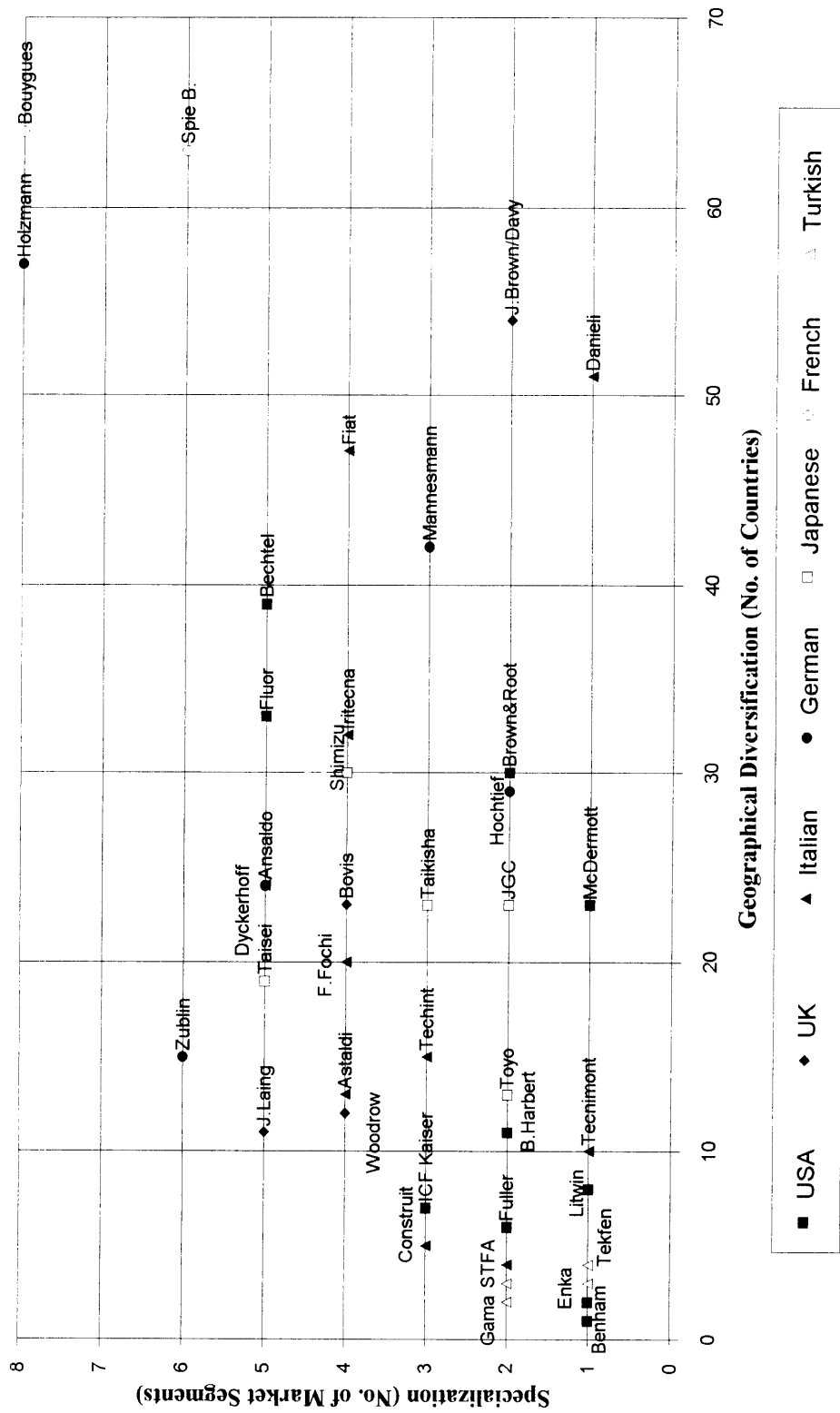
FIGURE 3.19 Top International Contractors in the former Soviet Union - 1991



Source: Author's calculations based on data from ENR, August 24, 1992.

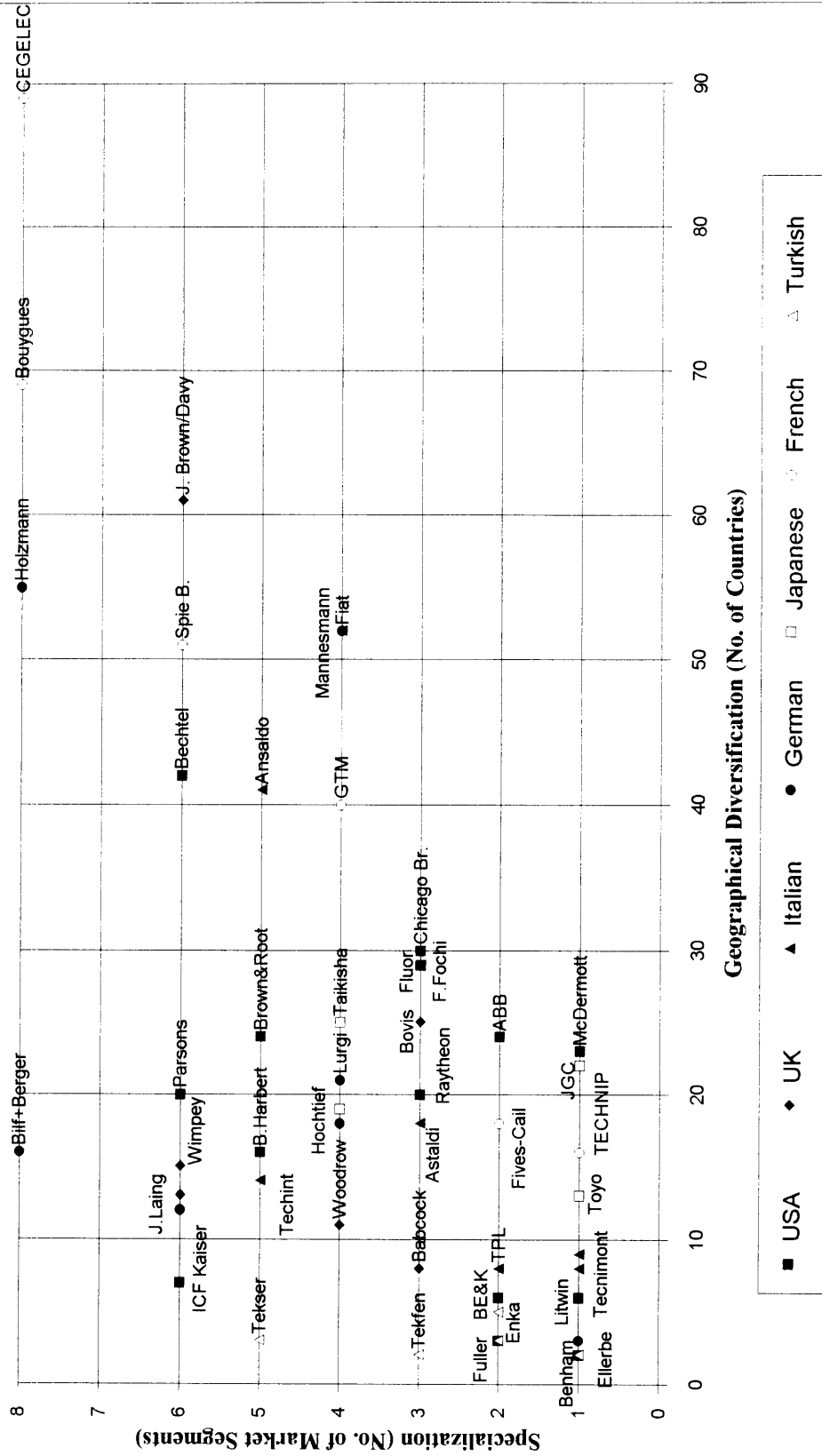
* estimated

FIGURE 3.20 Top International Contractors in the former Soviet Union - 1992



Source: Author's calculations based on data from ENR, August 23, 1993.

FIGURE 3.21 Top International Contractors in the former Soviet Union - 1993



Source: Author's calculations based on data from ENR, August 29, 1994.

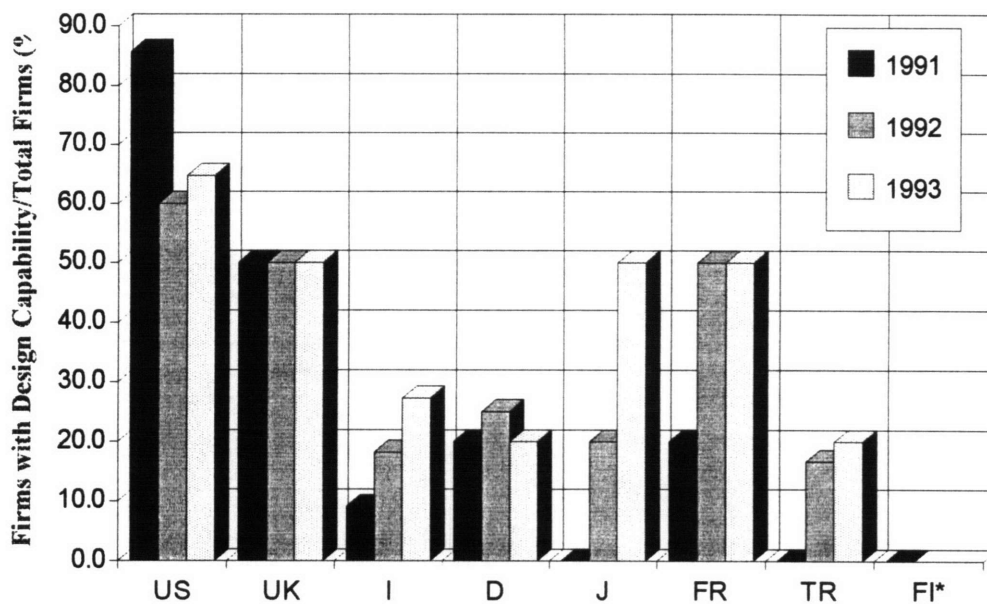
quadrants. In other words, they are highly dependent on international work, and specialize in a couple of market segments, mainly transportation and industrial works. With regard to their geographical diversification, except Fiat and Iritecna, almost all other Italian firms operate in 10-20 countries, ranked behind the French and Germans. Out of all the Italian contracting companies that have been operating in the former Soviet Union since 1991, only 20% of them have design capabilities - a figure that is significantly low compared to its US, British, French and Japanese equivalents (see Figure 3.22).

Overall, Italian contractors are successful due to their specialized market strategies, expertise in design/build contracts, and lower costs than other Western countries. They also transfer technology by creating joint ventures with other specialized Italian contracting companies for overseas work. Lack of efficient support from government agencies and from national consulting firms are major weaknesses.

German and French contracting companies (D) and (FR). Because contractors from these two nations showed similar characteristics during the analysis, they are discussed under one heading. These companies are among the largest operating in the former Soviet Union, along with Americans and British. Looking at Figures 3.16 through 3.19, we can see that both German and French contractors are located in the upper left quadrants. They are the most diversified companies in terms of market segments, and are not dependent on international work. Their 'international contracts/total contracts' ratios are in the range of 20-30% (examples are Holzmann, Hochtief, Bilfinger+Berger from Germany; and Bouygues, CEGELEC, Spie Batignolles from France). Although they are all highly diversified in terms of market segments, power and industrial works are focus areas for the French, and general building and water works for of the Germans. Also with regard to geographical diversification, contractors from the two countries show similar characteristics. Looking at Figures 3.19 through 3.21, one can see that they all are located in the upper right quadrants of the charts. In relation to design capabilities, more French companies have it in-house than the Germans have.

Overall, German and French contractors benefit from the large size of domestic construction markets, as well as are supported from other industries in their national economies. Germans have an excellent manufacturing and machine/equipment industry, whereas French design and consulting firms support French contractors significantly in overseas contracts³¹. Higher costs than developing countries' contractors is their major weakness, and only in the case of the Germans, the lack of government support.

Figure 3.22 Top International Contractors in the former Soviet Union - Design Capability



Source: Author's calculations based on data from various ENR issues * no data in 1992, 1993.

Japanese contracting companies (J). These firms are also among the largest contractors operating in the former Soviet Union. Some Japanese firms, like JGC and Toyo, are highly dependent on international work, and operate only in one or two market segments (similar to Italian contractors). But others, such as Taikisha, Taisei and

³¹ Seymour, 1987, p.171.

Shimizu, are concentrated on domestic work, and operate in a variety of market segments (similar to German and French contractors). Among the most served international market segments are manufacturing and industrial/petroleum. In relation to geographical diversification, all Japanese contracting companies are 'medium level' diversified - in the range of 15-25 countries (see Figures 3.19 through 3.21). Japanese contractors with design capability as a percentage of all Japanese contractors in the FSU has been increasing significantly since 1991.

Overall, Japanese contractors receive full support from their government, mainly through the Ministry of International Trade and Industry (MITI). Also, the country has highly developed manufacturing and machine tool/equipment industries that support overseas construction activities. Most Japanese contractors do not offer construction and project management services; and higher costs than developing countries' contractors is their major weakness.

Turkish contracting companies (TR). The characteristics of Turkish contracting companies that are operating in the former Soviet Union, are discussed thoroughly in Chapter 2, based on results of the questionnaire. The Turkish companies listed in ENR's 'Top International Contractors' reports have all completed the questionnaire prepared by the author of this thesis. Therefore, looking at Figures 3.14 through 3.22, we can see that the characteristics of Turkish companies fully coincide with the findings in the Chapter 2. Briefly these are: small company size, high degree of internationalization (international/total contracts ratios around 70-90%), specialization in one or two market segments (mainly general building), and very little geographical diversification (about 2 to 5 countries).

Finnish contracting companies (FI). Finnish firms are among the smallest contractors that are operating in the former Soviet Union, together with the Turkish and Italian. Looking at Figure 3.16, we can see that they are, however, less dependent on international work than the Turkish and Italian. Some of the Finnish contractors, such as

Rakennustoimisto and Haka, are specialized in fewer market segments, whereas others like YIT operate in a variety of sectors. With regard to geographical diversification, Finnish contractors are the least diversified after the Turkish contractors. They were operating in 8 to 13 countries worldwide in 1991. Overall, Finnish firms have been involved in construction projects in the Soviet Union for most of this century³², and thus have a remarkable local knowledge. Geographical proximity of the country is another advantage for the Finnish firms. However, in terms of cost, they are not competitive against contractors from developing countries.

Contractors from Eastern Europe. Contractors from countries, such as Romania, Poland, Bulgaria and former Yugoslavia were the dominant players in the Soviet Union, before the break-up of the union in 1991. Since no data about these contractors were available in the ENR's 'Top International Contractors' lists, they could not be analyzed quantitatively. However, on a qualitative basis, they are similar to local construction companies in the former Soviet Union. Compared to international standards, they are significantly less efficient and lower quality with regard to the construction process. Although these contractors are able to undertake projects even for a lower price than the developing countries' contractors, such as Turkish, South Korean and Indian, overall they are not competitive at all, due to their low quality, low efficiency, old technology and poor management techniques.

³² The Finnish Foreign Trade Association, 1991, p.6.

CHAPTER 4

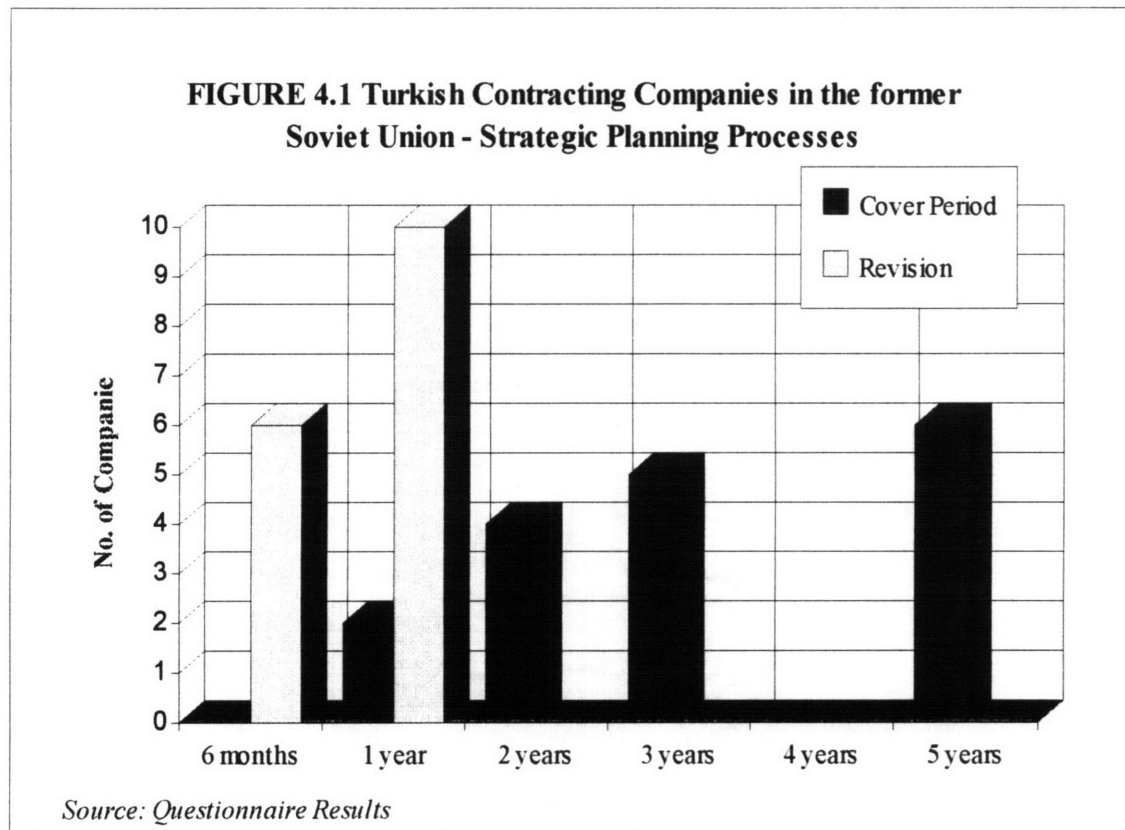
STRATEGY FORMULATION

In chapter 2, characteristics of Turkish contracting companies that are operating in the former Soviet Union were analyzed. Their product-, market- and geographic scopes, as well as unique competencies, strengths and weaknesses were identified. In chapter 3, firstly political and economic situations in the former Soviet Union were described. Then, the construction industry structure was analyzed and its attractiveness was assessed. Lastly, other foreign contracting companies operating in the former Soviet Union were examined. Using the results from chapters 2 and 3, chapter 4 will formulate competitive strategies for Turkish contracting companies. Their internal unique competencies and strengths will be matched with the external opportunities in the construction industry in the former Soviet Union. Additionally, their weaknesses will be minimized against possible threats in the external environment. While doing all these, competitive positions of competitors relative to Turkish firms will be taken into consideration.

4.1 CURRENT STRATEGIES PURSUED BY TURKISH CONTRACTING COMPANIES

Before formulating strategies for Turkish contracting companies, a brief overview of their current strategies will be given. With regard to strategic planning processes, out of 20 surveyed Turkish contracting companies, three of them (15%) did not carry out a strategic planning process. The remaining 17 firms (85%) carried out some form of a strategic planning process, with cover periods varying between 1 to 5 years (see Figure 4.1). These companies revised their strategic plans every 6 months or every year. According to most of the managers of the surveyed Turkish contracting companies, their firms carried out an opportunistic and emergent, rather than a formal and analytical

strategic planning process. Hax and Majluf define an emergent strategy as following: "Emergent strategy implies learning that works - taking one action at a time in search for that viable pattern or consistency. Emergent strategy means no chaos, but unintended order. Emergent strategy does not have to mean that management is out of control, only that it is open, flexible, and responsive - in other words, willing to learn.¹".

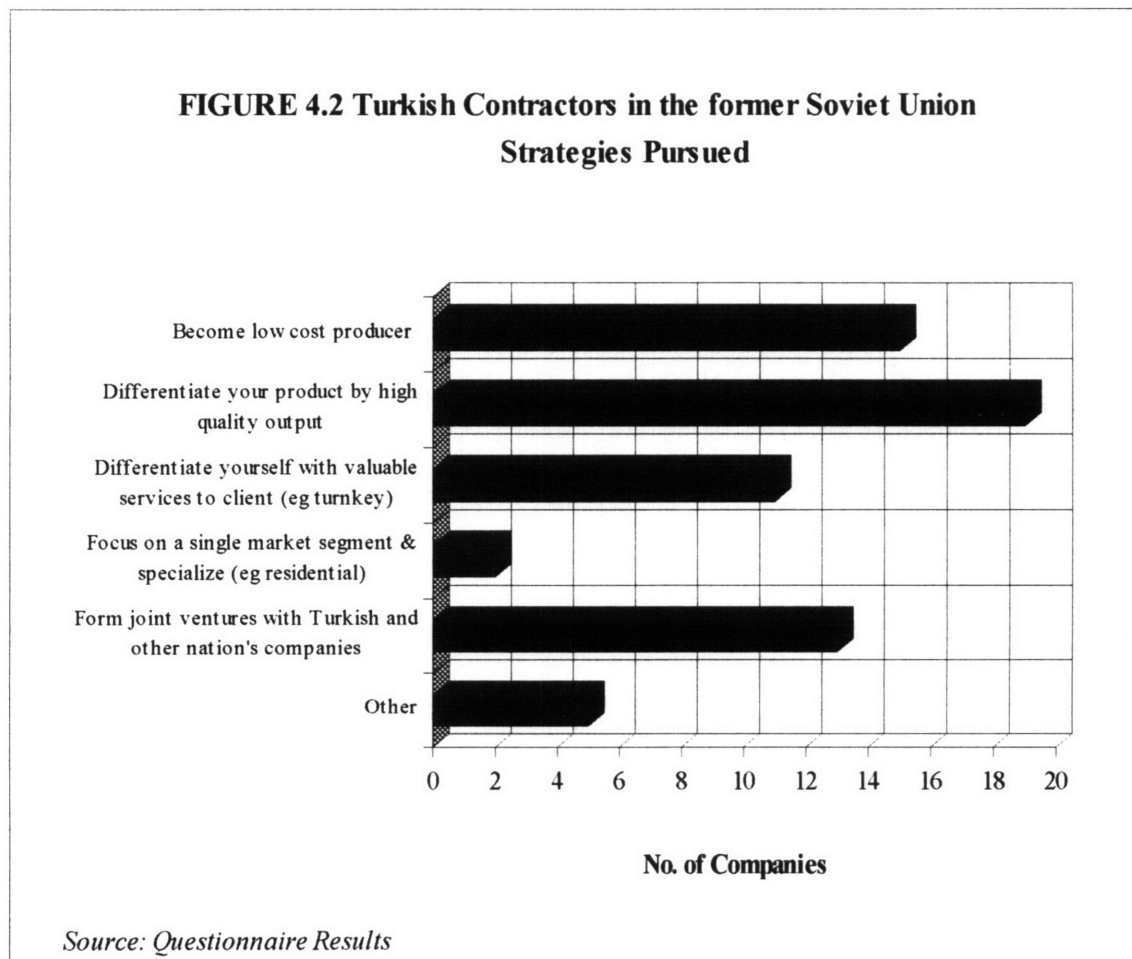


Many managers of the surveyed Turkish contracting companies described their strategic planning processes using similar terms to the above quotation. According to them, both the covered period and the revision of their strategic plans depended very much on external factors, such as, political and macroeconomic changes, emerging and declining market segments within the construction industry, etc. Overall, the planning process was very flexible and unformalized. In the privately owned firms, the owner(s) was(were) the

¹ Hax and Majluf, 1991, p.10.

dominant person in the strategic planning process, whereas in the firms with parent companies, the corporate strategies of the holding companies had a significant influence on the business strategies of the contracting business units.

With regard to strategies pursued by the Turkish contracting companies, Figure 4.2 summarizes the different strategies adapted by the surveyed Turkish firms.



As indicated, becoming a low cost producer and differentiation through high quality output are the type of strategies pursued by most of the companies. Low cost production, as a strategy, is very consistent with the fact that Turkish labor is significantly cheap and mobile relative to international standards, as identified previously in chapter 2. Differentiation through high quality output is another popular strategy among the Turkish

contracting companies that are operating in the former Soviet Union. This strategy could be effective with regard to contractors from other developing countries and countries from Eastern Europe, such as Bulgaria, Romania and Poland. However, it is questionable whether this strategy would work out with regard to contractors from developed countries, such as USA, UK, Germany and France. During the interviews with the managers of the surveyed companies, the author of this thesis had the opinion that this particular section of the question 29 (see the Appendix) - (whether the company was differentiating its product by high quality output), had not been perceived and answered correctly. 19 out of 20 companies (95%) reported that they were pursuing a differentiation strategy, arguably some of them actually meaning that their products were high quality.

Forming joint ventures with Turkish and other nation's companies is another popular strategy pursued by surveyed Turkish contracting companies. Turkish firms were preferred to foreign firms as partners, due to similar company cultures among them. Focusing on a single market segment is adapted only by 2 companies out of 20 (10%). This statement is true when one considers residential, tourism, health and commercial buildings as different market segments. But if one combines them under one category of 'general building', Turkish contracting companies should be considered to be specialized in this category. Around 70% of all contracts undertaken (completed and under construction) by surveyed Turkish contracting companies in the former Soviet Union were found to be general building contracts (see Figure 2.13). Five companies reported that they were pursuing strategies not included in the question - shown as 'other' in Figure 4.2. Three of them were related to the speed of project delivery: two firms told that timely delivery of projects was part of their strategies, and another one reported that delivering projects ahead of schedule was an important goal of the company. Another surveyed company focused on projects with foreign financing.

4.2 STRATEGY FORMULATION FOR TURKISH CONTRACTING COMPANIES

Using the findings from chapters 2 and 3, this section will formulate competitive strategies for Turkish contracting companies that are operating in the former Soviet Union. Firstly, broad strategies will be formulated under four headings: (1) Geographical Scope, (2) Specialization, (3) Vertical Integration, and (4) Low Cost / Differentiation. Then specific action programs will be proposed, which support the broad strategies.

Before formulating competitive strategies for Turkish contracting companies, a brief explanation will be given on hindrances to strategic planning in the construction industry. Betts and Ofori argue that construction industry offers little opportunity for the application of the concepts of strategic planning². One of the reasons cited for this is that the contracting company has little opportunity to differentiate its product because many project parameters are determined in advance (or before the contracting company is engaged in the project). Another reason is the fragmented structure of the construction industry, therefore there is little economies of scale. The uniqueness of every project makes 'previous experience' of a contracting company less valuable than it would be in another industry. Also, low capital requirements, and slow rate of technology change lower the entry barriers into the construction industry. Despite of all these factors, however, Betts and Ofori conclude that the forces for strategic change in other economic sectors are equally applicable to the construction industry. Thus, Turkish contractors are advised to apply the below formulated strategies in order to be competitive in the international construction markets, especially in the former Soviet Union.

4.2.1 Broad Strategies

Geographic Scope. There are two important dimensions with regard to geographic scope of Turkish contracting companies: (1) degree of internationalization,

² Betts and Ofori. 1992. p.523.

and (2) geographical diversification. With respect to degree of internationalization, we have seen that the surveyed Turkish contracting companies, on average, had 60% of their total contracts outside of Turkey in 1993. Because of the shrinking domestic construction market, these companies should keep their high degree of internationalization. Since the economic situation of Turkey is not expected to recover before 1996, focus should be given to international construction markets. And even after the domestic construction market starts growing, international construction projects should be given the priority, since they offer higher profit margins than domestic ones. On the extreme, however, the degree of internationalization should not reach 100%; in other words these companies should always undertake some projects in Turkey, in order to keep a foot in the domestic market, and hence spread the overall risk for the company.

With regard to geographical diversification, the surveyed Turkish contracting companies, on average, were operating in 2.75 countries (including Turkey) in 1993. This narrow geographical diversification was a function of relatively small company sizes of Turkish firms. Overall, company sizes, according to Seymour, is a function of size of domestic construction markets³. He carried out a simple regression with company size as the dependent variable, and size of domestic construction market as the independent variable. 10 largest companies from 8 countries were used in the sample, and the resultant correlation coefficient came out 0.85⁴ - a reasonably high figure. Thus, because the domestic construction market in Turkey is significantly small relative to countries, such as USA, Japan, France, Germany and UK, it is rather difficult for most Turkish firms to increase their company sizes, and hence geographically diversify. Therefore, it is proposed that strategic alliances should be formed - joint ventures with Turkish or other nation's contractors (details of forming joint ventures will be given in the specific action

³ Seymour. 1987. p.149.

⁴ Correlation coefficient varies between 0 and 1. 0 represents no correlation, whereas 1 represents full correlation between the two variables.

programs). In this way, Turkish contracting companies can diversify geographically, and minimize the burden if one country's construction market declines rapidly and unexpectedly.

This geographical diversification can be both within the former Soviet Union, and outside of it. In the North African and Middle Eastern markets, Libya is the only country left, in which Turkish contracting companies still undertake significant amounts of projects. Because of political instabilities, decrease of oil prices and the Gulf War in 1991, these markets have declined notably. However, peace between Israel, Jordan and the Palestinians promise some important infrastructure projects in the region. Also, Eastern European countries, such as Hungary, Poland, Czech Republic and others, are potential construction markets of the near future. Additionally, Turkish contractors should consider entering the Far Eastern countries, which have been the most attractive international construction markets during the last decade. One surveyed Turkish contracting company has already undertaken a project in Malaysia. Briefly, Turkish contracting companies should definitely further diversify geographically. If the company size and resources are not sufficient for it, joint ventures should be formed with Turkish and/or other nation's contracting companies.

Specialization. With regard to specialization, we have found out that Turkish contracting companies are focused on general building projects (mostly residential, tourism, health facilities and commercial buildings) in the former Soviet Union. However, looking at the total contracts undertaken by them (including contracts in countries other than FSU and domestic contracts), we have seen that transportation, industrial and energy market segments are well within the scopes of Turkish contracting companies (refer back to Figure 2.13).

In chapter 3, we have noted that housing (33.5%) and non-residential building (29.9%) together accounted for more than 60% of total construction investments in the Russian Federation in 1990 (refer back to Figure 3.12). It is estimated that at least until

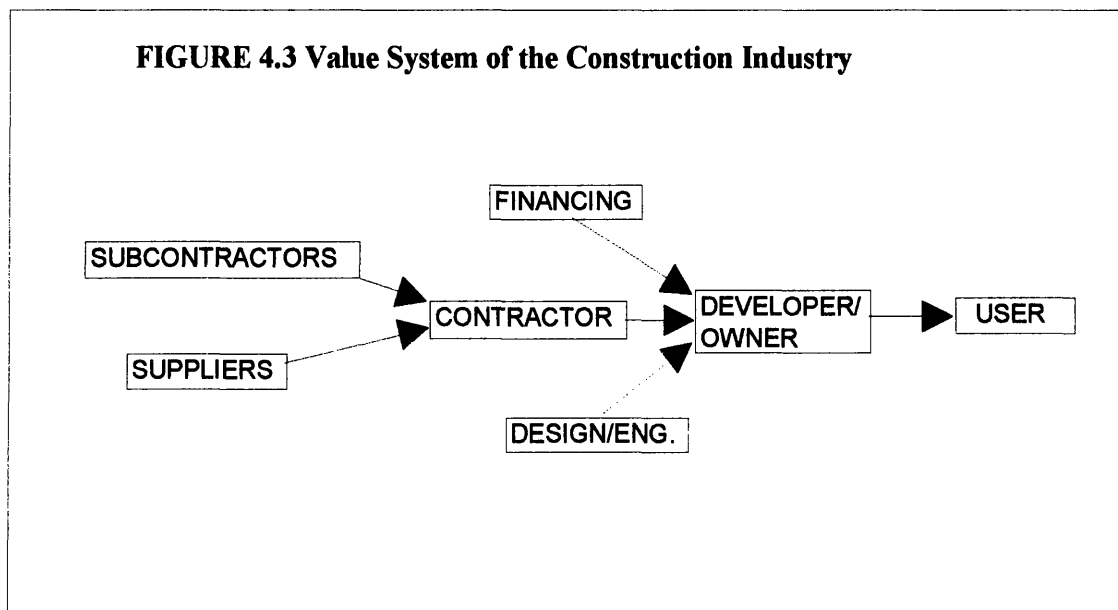
the year 2000, general building construction will take major share in the total construction industry. We have also noted that contracting companies from Germany, France, USA and UK, which are operating in the Soviet Union, were diversified across market segments, such as power, industrial/petroleum, transportation, etc. Turkish contracting companies, on the contrary, were the least diversified - in other words - most specialized firms.

Given the facts that (1) Turkish contractors are specialized in general building projects, and (2) major portion of construction investments in the Russian Federation and other republics are in the segment of general building, Turkish contracting companies should maintain their specialized status for the near future. This will be a significant advantage for them over other nation's contractors (which are diversified into several market segments), particularly during contractors selection periods of forthcoming general building contracts.

Vertical Integration. "Vertical integration is the combination of technologically distinct production, distribution, selling and/or other economic processes within the confines of a single firm"⁵. In relation to the construction industry, a contracting company can vertically integrate by producing construction materials, undertaking design/engineering services, developing and financing construction projects, maintaining and operating constructed facilities. Figure 4.3 shows the value system for the construction industry. If a contractor starts producing its own construction materials, this is called a backward vertical integration, because along the industry value system the contractor moves away from the user. On the contrary, if a contractor offers design/engineering services, or finances and develops a construction project, this is called a forward vertical integration, because along the industry value system the contractor moves closer to the end user.

⁵ Porter. 1980, p.300.

Given the needs for design/engineering, as well as financing of construction projects in the former Soviet Union (as identified in chapter 3), Turkish contracting companies should forward vertically integrate. Already, seven out of 20 surveyed Turkish firms (35%) are offering design services and developing construction projects in the former Soviet Union (refer back to Figure 2.11). More companies should extend their product scopes, and offer design/engineering and financing for construction projects. Details of these will be discussed in the specific action programs.



Low Cost / Differentiation. We have seen that due to cheap Turkish labor, Turkish contracting companies have significant cost advantages, especially against contractors from developed countries, such as USA, Germany, France, Japan and UK. This advantage has been considered as a major strength of Turkish contracting companies that are operating in the former Soviet Union. Therefore, these companies should continue to pursue a low cost strategy. Since differences in output quality, management techniques and construction technology between Turkish firms and firms from developed countries are decreasing significantly over time, cost is becoming the major contractor

selection criteria. Thus, by following a low cost strategy, Turkish contractors will compete against developed countries' contractors to an easier extent.

On the other hand, Turkish contractors should continue improving their output quality, corporate and project management techniques, as well as technology, in order to differentiate themselves against contractors from other developing countries, such as South Korea, India and Pakistan, which have similar cost structures to Turkish contracting companies.

Briefly, while keeping their cost advantages, Turkish firms should differentiate their products. In addition to quality, management and technology, Cannon and Hillebrandt state that also integrating into design and financing could be considered ways of differentiation in the construction industry⁶. These will be covered later in the specific action programs.

4.2.2 Specific Action Programs

Offer Design and Engineering Services. Offering design and engineering services to the client can be done in two ways: (1) internally, (2) externally.

In the first way, Turkish contractors can have an in-house department for design and engineering. According to the questionnaire results, 11 out of 20 surveyed companies (55%) do have an internal design capability. However, only seven out of these 11 companies are actually offering design/engineering services in the Soviet Union. Also as identified in the last section of chapter 3, compared to American, British and French companies, very few Turkish contractors offer design services in the Soviet Union. It is recommended that they use their design capabilities, and get engaged in the projects earlier on. The Turkish companies which do not have design capabilities, can create in-house departments for it. This, however, will require both significant financial, human and

⁶ Cannon and Hillebrandt. 1990. p.25.

management resources, and take some time until the department starts operating efficiently. As an alternative, Turkish contracting companies that do not have internal design capabilities, can cooperate with external design/engineering firms in form of a strategic alliance. This alternative requires minimum financial investment, and also is much faster than creating an internal department.

As local design firms in the former Soviet Union are not capable of offering design/engineering services at international standards, design/build contract types are getting popular, where the contractor is providing design and engineering in addition to the construction of the project. Thus, Turkish contractors should expand their services into design, which will bring several advantages to them. Firstly, they will be engaged in the process earlier, and hence will have a higher chance of getting selected as contractor. Secondly, by integrating and controlling design and construction, Turkish firms can reduce the overall duration of projects (in other words fast-track), which is currently very important to clients in the former Soviet Union. Also, by integrating design and construction, Turkish firms will be able to offer other services to clients, such as value engineering and constructability analysis. Finally, clients would prefer Turkish contractors with design capability, since they will have to deal only with one entity (design/build team), instead of two.

Offer Financing for Projects. The contracting company can finance a construction project either (1) by its own sources, or (2) by external sources.

Since Turkish contracting companies are relatively less stable from a financial point of view, it is rather difficult for them to finance large-scale projects by company's own sources. However, they can finance smaller size projects of residential and commercial buildings in the large cities of the former Soviet Union. These projects can be both new construction and renovation of existing facilities. Especially, in Moscow and St. Petersburg there are new local and foreign real estate agencies that are looking for

contractors with financing capabilities in order to construct and/or renovate housing and office buildings.

With regard to larger scale projects in the former Soviet Union, Turkish contractors should arrange external financing sources. Turkish Eximbank credits and government incentives are common examples of public financing for projects. They will be discussed later in this chapter. With regard to private financing sources, Turkish contracting companies should cooperate with Turkish or foreign financial institutions, in order to provide financing for construction projects in the former Soviet Union. With respect to that, Turkish firms may enter into B.O.T. type of contracts, and hence operate constructed facilities for a certain period of time. In most of the former Soviet republics, the legal framework for foreign ownership has been already set. As financing continues to be the major problem in construction projects in the former Soviet Union, Turkish contracting companies will win over their competitors, if they can offer financing for projects.

Form Strategic Alliances. Strategic alliances are cooperative agreements between firms in an industry. In construction industry, they can range from relatively short-term non-committal project oriented relationships to long term equity based cooperation⁷. Turkish contracting companies should enter into such relationships, for example joint ventures, with Turkish or foreign firms for several reasons. Firstly, the level of exposure to overall risk will be reduced. Also, technical expertise will be pooled and/or transferred, as well as better access to markets will be achieved. As another important advantage of strategic alliances, Turkish contracting companies can broaden their narrow geographic focus, i.e. diversify geographically into new countries.

When choosing a partner for a strategic alliance, Turkish contractors should consider several factors. Firstly, the nationality of the potential partner company is an

⁷ Moodley, 1994, p.375.

important criterion. Language and culture differences can influence the information flow within the joint venture employees significantly. Another important factor is whether there will be reciprocal benefits enjoyed by two partners. When entering in a new country, a local contractor can be a useful partner for Turkish contracting companies. Similarly, when bidding for a project, in which the Turkish firm has little previous experience, a specialized contractor in that area should be chosen.

Seek for more Government Support. We have seen that contracting companies from Japan, South Korea and France are receiving significant government support in their countries, such as project financing, insurance applications and other incentives. To compete under equal conditions, Turkish contractors should be supported by the government to a greater extent. Credits given by Turkish Eximbank for project financing should be increased, as well as a solution should be found to the problem of 'double taxation' - which is explained in chapter 2. Turkish contracting companies should lobby for increasing government support to them. Media can be used to inform the public on how important is the international contracting sector in Turkey's exports, hence in its economy.

CHAPTER 5

CONCLUSIONS

Having carried out a strategic planning process for the Turkish contracting companies in the former Soviet Union, this last chapter will present all the conclusions drawn.

In chapter 2, the internal characteristics of Turkish contracting companies were analyzed. According to the questionnaire results, it is found out that most Turkish firms had been established during 1950-70 period. With regard to their revenues in 1993, medium sized companies are in the \$10-100 million range, and large firms are in the \$100-250 million range. Regarding their product scopes, Turkish contracting companies are vertically integrated in the total contracts (international and domestic contracts). They offer all services along the construction industry value system: they produce construction materials, offer general contracting, design/engineering and consulting services, as well as subcontracting and development of projects. However, with respect to contracts only in the former Soviet Union, Turkish firms are less integrated. Production of construction materials and consulting services are not carried out by them, and development, subcontracting and design are offered by fewer Turkish firms in the former Soviet Union. With respect to different market segments served, Turkish contracting companies are well diversified regarding total contracts undertaken by them. General building, industrial, transportation, energy and water works are in the market scope of surveyed Turkish firms. On the contrary, these companies are focused in the general building segment in the former Soviet Union, mainly residential, tourism, health and commercial buildings. With regard to their geographic scope, it is found out that Turkish companies are highly internationalized - average ratio of international contracts to total contracts in 1993 was around 60%. However, these companies are not diversified geographically, i.e. on

average they were operating in 2.75 countries (including Turkey) in 1993. Only two out of 20 surveyed companies (10%) had projects in more than four countries in the same year. This behavior was considered to be a result of their small company sizes compared to international standards. Middle Eastern and North African countries (Libya, Saudi Arabia) and former Soviet Union (Russia, Kazakhstan, Turkmenistan, etc.) were major international markets, in which Turkish contractors were operating in 1993.

With regard to unique competencies of Turkish contracting companies, cultural and lingual links to the Central Asian republics (Azerbaijan, Kazakhstan, Turkmenistan, Uzbekistan, Kyrgyzstan and Tajikistan), as well as geographical proximity to the entire former Soviet Union are considered important factors. Overall risk taking attitudes of Turkish firms is another unique competency of them, and thus not matched by any other competitor in the industry. Cheapness and mobility of Turkish labor, timely delivery of projects and good relationships with clients are considered to be important strengths of Turkish firms that are operating in the former Soviet Union. With regard to their weaknesses, lack of sufficient government support is an important factor. Narrow geographic scope, weak financial situation, and limited overseas use of Turkish design and consulting services are found to be other disadvantages of Turkish contracting companies.

In chapter 3, firstly political and economic situations of former Soviet republics were analyzed. It has been concluded that despite of current instabilities, these countries have the potential for developing rapidly in the near future, mainly due to radical economic reforms launched and vast natural resources possessed. With regard to construction industry structure in the former Soviet Union, some changes have occurred. Centrally planned design, procurement and construction processes are changing to free market style, with foreign contracting companies intensifying the competition. Regarding the attractiveness of the construction industry in the former Soviet Union, it is found out that power of suppliers against contractors, threat of new entrants into the market and

threat of substitutes are relatively low. Hence, the overall attractiveness of the construction industry is assessed to be high, and therefore firms operating in it should earn attractive returns. With regard to market segmentation, housing market has an important share in the total construction investments. Also, non-residential buildings and industrial facilities are found to be market segments that will continue to be attractive in the future. Regarding different competitors operating in the former Soviet Union, American, German and French contractors are among the largest and most diversified, both geographically and in terms of market segments. Italian contracting companies are found to be highly internationalized and focused on certain market segments. Overall, contractors from developed countries are superior in management and construction technology, but have higher cost structures than contractors from developing countries.

In chapter 4, competitive strategies for Turkish contracting companies were formulated. Accordingly, it is strongly advised that they should diversify geographically into new countries, in order to minimize the level of exposure to overall risk. If the company size is not large enough to diversify, joint ventures or similar strategic alliances should be used. In that way, Turkish contractors can combine their financial strengths, pool and transfer expertise, and have better access into new markets. Given the needs for general building projects - especially housing - in the former Soviet Union, Turkish contractors should maintain their specialized status. Since most contractors from developed countries are highly diversified into many market segments, Turkish contracting companies will be in an advantageous position due to their specialization in general building projects. With regard to vertical integration, Turkish firms should forward integrate, and offer design/engineering, as well as financing for projects in the former Soviet Union. While keeping their cost advantages, they should also improve their corporate and project management capabilities, as well as output quality and construction technologies. Lobbying for more support from the Turkish Government, as project

financing and other incentives, will position them better in the international construction market.

Finally, this thesis carried out a strategic planning process using common characteristics of Turkish contracting companies that are operating in the former Soviet Union. It is strongly advised that these companies should try to match their individual strengths with external opportunities, and to minimize their individual weaknesses against possible threats in the external environment. Having formulated and implemented their strategies, these companies should monitor and evaluate the performance, and hence revise the strategies periodically. In this way, they can create competitive advantages and sustain them in the long term.

APPENDIX: QUESTIONNAIRE

A. CHARACTERISTICS OF YOUR COMPANY:

1. When was your company established?

Before 1950 _____ 1950-1960 _____ 1960-1970 _____
1970-1980 _____ 1980-1990 _____ After 1990 _____

2. What is the size of your company?

a) Gross revenue in 1993 in US\$:

Less than \$1M _____ \$1M-\$10M _____ \$10M-\$50M _____
\$50M-\$100M _____ More than \$100M _____

b) Number of employees: (Please do not include the employees who have worked for a period of less than three months and the employees who are on a payroll of another company)

Less than 20 _____ 20-100 _____ 100-500 _____
500-1000 _____ 1000-3000 _____ More than 3000 _____

3. Which of the following does your company do? (Please check all that apply)

Production of
construction materials _____ General Contracting _____ Design/Engineering _____
Consulting _____ Subcontracting _____ Development _____

4. How are your total sales until 1994 distributed by the organization of contract?

Traditional Method _____ % Design/Build _____ % B.O.T. _____ %
Other _____ % (please specify) _____

5. Is your company a subsidiary of a parent company?

Yes _____ No _____

6. How are your total sales until 1994 distributed by market segments?

Residential _____ % Industrial _____ % Transportation _____ %
Energy _____ % Tourism _____ % Health Facilities _____ %
Educational _____ % Water works _____ % Commercial _____ %
Other _____ % (please specify) _____

7. How are your total sales in Turkey until 1994 distributed by client type?

Public _____ % Private _____ %

8. How are your total sales until 1994 distributed by country?

Turkey _____ % Libya _____ % Saudi Arabia _____ %
Iraq _____ % Russia _____ % Kazakhstan _____ %
Ukraine _____ % Azerbaijan _____ % Turkmenistan _____ %
Belorussia _____ % Uzbekistan _____ %
Other _____ % (please specify) _____

9. How are your total sales in 1993 distributed by country?

Turkey _____%	Libya _____%	Saudi Arabia _____%
Iraq _____%	Russia _____%	Kazakhstan _____%
Ukraine _____%	Azerbaijan _____%	Turkmenistan _____%
Belorussia _____%	Uzbekistan _____%	
Other _____%(please specify)_____		

10. How are your total sales until 1994 distributed between new construction / renovation?

New construction _____% Renovation _____%

11. How are your total sales until 1994 distributed by the contract type?

Lumpsum _____%	Unit Price _____%	Cost plus _____%
Other _____%(please specify)_____		

12. Does your company carry out a strategic planning process?

Yes _____ No _____

If yes, how long is the period covered? _____
how often is it updated? _____

B. YOUR COMPANY IN THE FORMER SOVIET UNION MARKETS:

13. Since when is your company operating in the former Soviet Union?

14. Which of the following does your company do in the former Soviet Union?

General Contracting _____	Design/Engineering _____	Consulting _____
Subcontracting _____	Development _____	Other _____

15. How are your total sales in the former Soviet Union distributed by the organization of contract?

Traditional Method _____%	Design/Build _____%	B.O.T. _____%
Other _____%(please specify)_____		

16. How are your total sales in the former Soviet Union distributed by the client type?

Local public agencies _____%	Foreign private companies _____%
Local private companies _____%	Foreign public agencies _____%

17. How are your total sales in the former Soviet Union distributed by the type of project financing?

Client finances _____%	Turkish Loan _____%
Foreign Country Loan _____%	Contractor finances(partly) _____%
	(wholly) _____%

18. What is the total value of projects completed by your company in the former Soviet Union?

\$ _____

19. What is the total value of projects continuing, undertaken by your company, in the former Soviet Union?

\$ _____

20. How are your total sales in the former Soviet Union distributed by the currency of payment?

US\$ _____% Rubles _____% German Marks _____%
Bartering _____%(please specify) _____ Other _____%

21. What is the total number of employees that your company has in the former Soviet Union?

Turkish _____ Foreign _____

22. How are the construction materials that your company uses in the former Soviet Union distributed by country of supply?

Turkey _____% Local country _____% Foreign country _____%

23. How are your total sales in the former Soviet Union distributed by market segments?

Residential _____% Industrial _____% Transportation _____%
Energy _____% Tourism _____% Health Facilities _____%
Educational _____% Water works _____% Commercial _____%
Other _____%(please specify) _____

24. How are your total sales in the former Soviet Union distributed between new construction / renovation?

New construction _____% Renovation _____%

25. How are your total sales in the former Soviet Union distributed by the contract type?

Lumpsum _____% Unit Price _____% Cost plus _____%
Other _____%(please specify) _____

26. How are your total sales in the former Soviet Union distributed by the contract awarding method?

Competitive bid _____% Negotiation _____% Bid + negotiation _____%

27. For which of the following activities does your company use a subcontractor in the former Soviet Union?

Activities	No subcontractor is used	Turkish subcontractor used		Foreign subcontractor used	
		Labor	Labor + material	Labor	Labor + material
Excavation					
Foundation					
Sitecast concrete					
Steel components					
Precast concrete					
HVAC					
Electrical					
Ceiling, floor finishes					
Wood works					
Painting					
Glass and glazing					

28. How would you assess the following points as strengths or weaknesses of your company against foreign competitors in the former Soviet Union markets?
(10=high strength, 1=high weakness)

- Geographical proximity to the markets..... _____
- Cultural, lingual links to the Turkic Republics..... _____
- Mobility and cheapness of Turkish labor..... _____
- Overall risk taking attitude..... _____
- Bidding for projects under bilateral trade agreements..... _____
- Turkish Government's support to contractors..... _____
- Insurance applications..... _____
- Age and size of your company..... _____
- Financial situation of your company..... _____
- Organizational structure of your company(e.g. responsibilities given to site managers)_____
- Low-cost delivery of projects..... _____
- Usage of high technology..... _____
- Quality of output in the projects..... _____
- Timely delivery of projects..... _____
- Project management capabilities of the company..... _____
- Your company's relationship with local suppliers and subcontractors..... _____
- Your company's relationship with clients..... _____
- Other _____
- _____
- _____
- _____

29. Which of the following strategies is your company adapting or will adapt in the former Soviet Union markets? (Please check all that apply)

- Become lower cost producer..... _____
- Differentiate your product by high quality output..... _____
- Differentiate yourself with valuable services to client (e.g. turn-key services)..... _____
- Focus on a single market segment & specialize (e.g. residential)..... _____
- Form joint ventures with Turkish or other nation's companies..... _____
- Other _____
- _____
- _____

30. How would you assess the construction industry structure in the former Soviet Union?

a) Bargaining power of clients against contractors:

Very high ___ High ___ Medium ___ Low ___ Very low ___

b) Bargaining power of suppliers and subcontractors against contractors:

Very high ___ High ___ Medium ___ Low ___ Very low ___

c) Possibility of new contracting methods(e.g. design/build, B.O.T.) being an alternative to the traditional general contracting method:

Very high ___ High ___ Medium ___ Low ___ Very low ___

d) Possibility of renovation outranking the new construction:

Very high ___ High ___ Medium ___ Low ___ Very low ___

e) Internal rivalry among contractors in the market:

Very high ___ High ___ Medium ___ Low ___ Very low ___

f) Thread of contractors entering the market:

Very high ___ High ___ Medium ___ Low ___ Very low ___

31. How do you forecast the future of the former Soviet Union markets from the Turkish construction industry's point of view?

Thank you for your interest and help.

BIBLIOGRAPHY

- Arditi D., Akan G. T., Gürdamar S.**, "Reasons for Delays in Public Projects in Turkey", *Construction Management and Economics*, 1985, **3**, p.171-181.
- Benitez J. A.**, *Small Family-owned Construction Companies in Colombia: A Business Strategy*, Unpublished Master's Thesis, MIT, 1990.
- Benitez P. L.**, *An Evaluation of the North American Free Trade Agreement and its Effects on the Mexican Construction Industry*, Unpublished Master's Thesis, MIT, 1993.
- Betts M., Cher L., Mathur K., Ofori G.**, "Strategies for the Construction Sector in the Information Technology Era", *Construction Management and Economics*, 1991, **9**, p.509-528.
- Betts M., Ofori G.**, "Strategic Planning for Competitive Advantage in Construction", *Construction Management and Economics*, 1992, **10**, p.511-532.
- Cannon J., Hillebrandt P. M.**, *The Management of Construction Firms: Aspects of Theory*, MacMillan, 1989.
- Cannon J., Hillebrandt P. M.**, *The Modern Construction Firm*, MacMillan, 1990.
- Co-Invest**, *Price Index of Construction Materials in Russia*, Moscow, March 1994. (in Russian)
- Co-Invest**, *Contractor Selection in Competitive Bidding*, Moscow, January 1994. (in Russian)
- Construction Market Intelligence: Russia**, *Newsletter*, Means, 1994, various issues.
- Contracting Services Group**, "Reports and Discussions", 3. *İzmir Economics Congress*, State Planning Organization, Turkey, June 1992, p.185-231.(in Turkish)
- Dowall D. E.**, "From Central Planning to Market Systems: Implications of Economic Reforms for the Construction and Building Industries", *Housing Policy Debate*, **Vol. 3**, Issue 4, p.977-994.
- The Economist**, *The Lady and the Lira*, February 5, 1994, p.52.
- The Economist**, *Russia's Crisis of Capitalism*, October 15, 1994, p.63.
- Economist Intelligence Unit**, *Country Profiles*, various countries, London, 1993-1995.

Economist Intelligence Unit, *Country Reports*, various countries, London, 3rd quarter 1994.

ENR, *The Top International Contractors*, various issues, 1983, 1987-1993.

ENR, *The Turkish Contractor: A Dynamic Newcomer*, April 12, 1984.

ENR, *The Top 400 Contractors*, May 23, 1994, p.40-84.

ENR, *Fourth Quarterly Cost Report - International*, December 19, 1994, p.38-43.

Euromoney, *Turkey: Looking West and East*, April 1993, p.1-24.

European Construction Research (ECR) and Centre for Construction Market Information (CCMI), *Construction and Property in Russia, 1994-2000*. London, June 1994.

Fernandez F. J., *Strategies Available to Spanish Construction and Engineering Firms in order to Compete in the New Emerging European Market*, Unpublished Master's Thesis, MIT, 1991.

Finnish Foreign Trade Association, *Finland - A Constructive Partner for Soviet Projects*, 1991.

Foreign Economic Relations Board (DEIK), *Country Reports of former Soviet Union Republics*, various issues, 1992-1994. (in Turkish)

Giritli H., Sözen Z., Flanagan R., Lansley P., "International Contracting: A Turkish Perspective", *Construction Management and Economics*, 1990, **8**, p.415-430.

Hasegawa F., Shimizu Group FS, *Built by Japan: Competitive Strategies of the Japanese Construction Industry*, Wiley, 1988.

Hattori T., *The Strategy of the Japanese Construction and Engineering Industry in the US*, Unpublished Master's Thesis, MIT, 1989.

Hax A. C., *Business Strategic Planner - User's Manual*, version 2.0, EDS, 1994

Hax A. C., Majluf N. S., *The Strategy Concept and Process: A Pragmatic Approach*, Englewood Cliffs, NJ: Prentice-Hall, 1991.

Homma R., *Market Entry Strategy of Japanese Construction Companies in the USA*, Unpublished Master's Thesis, MIT, 1986.

Hong J., *Competitive Strategies for Korean Construction Firms for Changing Circumstances*, Unpublished Master's Thesis, MIT, 1993.

Kabasakal H. E., Sözen Z., Üsdiken B., "Organizational Context, Structural Attributes and Management Systems in Construction Firms", *Construction Management and Economics*, 1989, 7, p.347-356.

Kaynak E., Dalgıç T., "Internationalization of Turkish Construction Companies", *The Columbia Journal of World Business*, Winter 1992, p.60-75.

Khoon Q. S., *Marketing Abroad: Competitive Strategies and Market Niches for the Singapore Construction Industry*, Pacific Trade Press, 1991.

Kobayashi T., *A Comparison of the Corporate Strategies of US and Japanese Engineering and Construction Companies*, Unpublished Master's Thesis, MIT, 1987.

Krippaehne R. C., McCullouch B. G., Vanegas J. A., "Vertical Business Integration Strategies for Construction", *Journal of Management in Engineering*, Vol 8, No 2, April 1992, p.153-165.

Langford D., Male S., *Strategic Management in Construction*, Hants: Gower, 1991.

Lord M. A., "Implementing Strategy through Project Management", *Long Range Planning*, 1993, Vol 26, No 1, p.76-85.

Macomber J. D., "Strategic planning for Contractors: 8 Steps to Success", *Construction Business Review*, Jan/Feb. 1991.

Moodley K., "Competitive Advantage in Construction through Alliance Formation", Strategic Planning in Construction, *Proceedings of the A. J. Etkin International Seminar on Strategic Planning in Construction Companies*, Haifa, Israel, June 1994.

National Governors' Association (Moscow Office), *Russia Trade News*, various issues, 1994.

Porter M. E., *Competitive Advantage: Creating and Sustaining Superior Performance*. New York: The Free Press, 1985.

Porter M. E., *Competitive Strategy: Techniques for Analyzing Industries and Competitors*. New York: The Free Press, 1980.

Porter M. E., "Michael E. Porter on Competition and Strategy", *Harvard Business Review Paperback*, 1991.

Prime Ministry - Advisory Unit for International Contracting Services, *Activity Report-1993*, Ankara, 1993. (in Turkish)

Prime Ministry - Advisory Unit for International Contracting Services, *Activity Report-1994*, Ankara, 1994. (in Turkish)

Prince M. W., "Implications of Perception and Strategy for Engineers in Construction Management", *Construction Management and Economics*, 1992, **10**, p.93-105.

The Russian Construction Research Group, *Construction and Development in the Russian Federation, Volume 1: Construction in the Russian Federation*. London, July 1993.

The Russian Construction Research Group, *Construction and Development in the Russian Federation, Volume 2: Housing in the Russian Federation*. London, March 1994.

Seymour H., *The Multinational Construction Industry*. New York: Croom Helm, 1987.

Sözen Z., "Turkish Contractors in Overseas Markets: Strategies of Change", Strategic Planning in Construction, *Proceedings of the A. J. Etkin International Seminar on Strategic Planning in Construction Companies*, Haifa, Israel, June 1994.

Slatter S. P., "Strategic Marketing under Conditions of Competitive Bidding", *Strategic Management Journal*, 1990, **Vol 11**, p.309-317.

State Institute of Statistics (DIE), *Turkish Economy in May 1994: Statistics and Comments*, Ankara, May 1994. (in Turkish)

Strassmann W. P., Wells J., *The Global Construction Industry: Strategies for Entry, Growth and Survival*. London: Unwin Hyman, 1988.

Tavakoli A., Tulumen S. C., "Construction Industry in Turkey", *Construction Management and Economics*, 1990, **8**, p.77-87.

Turkish Cooperation and Development Agency (TIKA), *Eurasia File-Newsletter*, 1994, various issues. (in Turkish)

Union of International Contractors (UIC), *Outlook - November 1992*, Ankara, 1992.

Union of International Contractors (UIC), *Outlook - January 1994*, Ankara, 1994.

Union of Turkish Contractors (TMB), *Briefing to Prime Minister*, September 1993, Ankara, 1993. (in Turkish)

Üsdiken B., Sözen Z., Enbiyaoglu H. *Strategies and Boundaries: Subcontracting in Construction*, Research Paper, Bogazici University, Istanbul, 1987.

Yates J. K., "Construction Competitiveness in the 21st Century", *AACE Transactions*, H1, 1991.