



Links Amongst Innovation, Corporate Social Responsibility, Sustainability, and  
Internationalization Processes of Emerging Market Multinationals: The Case of Turkish  
Business Groups.

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## **Dedication**

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## **Abstract**

The purpose of this dissertation is to explore the Emerging Market Manufacturing Business Groups' innovation processes through their internationalization activities and the interplay between innovation, corporate social responsibility, and sustainability. This study focuses on the business dynamics of manufacturing Turkish Business Groups (TBGs), namely Turkish Holding Companies. It gives a clear illustration of how manufacturing can be innovative, responsible, and sustainable while internationalizing and exceling the firms' competitive advantage through utilizing both foreign and domestic resources. The study comprises Turkish manufacturing multinationals that operate in the continent of Europe. It examines 15 parent firms and 72 subsidiaries that conduct manufacturing operations in the European countries. The study employs explanatory case study approach. The results demonstrate that manufacturing operations of TBGs can be innovative, social responsible, and environmentally sustainable while internationalizing into advanced countries.

Keywords: Emerging Market Manufacturing Business Groups, Sustainability, Innovation, Network Systems, Turkish Business Groups, and Internationalization.

## **I. Chapter: Introduction**

Over the last decade, the experience of fast economic growth, and the transformation to more liberalized market systems in emerging market (EM) countries has motivated multinational corporations that originate in these markets to begin and/or to accelerate their investments and internationalization process in host countries in a large geographical scope. With this initiation, the global economy has been witnessing worldwide foreign direct investment (FDI) propelled, more and more, by Emerging Market Multinationals (EMC), and Emerging Market Business Groups (EMBGs).

Recently, these multinationals are becoming more integrated into the global market through their internationalization processes, not only in developing countries, but in developed countries with advanced economies as well. Specifically, the investment efforts of EMCs into advanced economy countries have significantly increased (United Nations Conference On Trade and Development, 2015). Hence, EMCs from emerging markets, such as China, India, Mexico, and Turkey have been embarking diverse operations in developed countries. These EMCs have contributed to little over than one-quarter of total world FDI by 2017. 26,000 business groups from Emerging Market have presence in advanced countries (Belenzon et al., 2012).

Some of the prominent firms that have been undertaking operations in advanced economies are Turkish Business Groups (TBGs), namely Turkish Holding Companies (THCs), which are also family owned companies. These Holding companies have been conducting manufacturing operations in numerous countries of Europe for many decades. In recent years, their operations took on innovation and environmental sustainability as the core principles in order to gain and to sustain competitive advantage. In doing so,

they became efficacious in their international operations. However, it must be noted here that this efficacy is also related to their organizational forms and/or corporate governance structures. The map below demonstrates the international expansion of the TBGs.



**Map 1:** Geographic Expansion of TBGs (created by the author).

Overall, the acceleration of Turkish Multinationals' internationalization processes into the mostly developed countries of the European Union (EU) is an intriguing phenomenon is the main motivation of the study. This motivation is also shaped by their successful and rapid expansions into EU, and their creation of manufacturing facilities in these countries. In addition, TBGs have become more noticeable in providing employment to EU citizens, and supplying the demand of EU consumers with innovative technological products. Therefore, there is a need for studies that investigate how



innovation, sustainability, corporate social responsibility factors and their linkages play a role in the internationalization processes of emerging market multinationals (Narula, 2012; Buckley & Tian, 2017; Krammer et al., 2017; Yaprak & Karademir, 2016). Yet, IB theories revolved around standalone firms.

Therefore, there is a need of research on business groups in theory building (Holmes Jr. et. al., 2016). There is a need because linkages amongst innovation, corporate social responsibility, and sustainability factors, and whether they promote and enhance internationalization processes of TBGs has not been studied by the previous literature. The examination of emerging market multinationals' internationalization processes is an area that has not been covered in the previous International Business Literature in the perspective of business groups.

Along with the issues that relate to internationalization processes of firms there are also some trepidations that include social and environmental issues that come up while the firms internationalize. Having facing these issues, these firms have been trying to integrate innovation, corporate social responsibility, and sustainability into their everyday operations. When examining the previous theories, there seems to be a void in explaining their way of conducting businesses in advanced countries.

Thus, the purpose of this research is to investigate the dynamic interrelationships of innovation, corporate social responsibility, and sustainability factors in the internationalization processes of Turkish Multinationals, specifically Turkish Business Groups. Therefore, the research analyzes how each factor is integrated into internationalization process of TGBs. This study is empirical, explanatory and descriptive

as it focuses on the business dynamics of manufacturing Turkish Business Groups, namely Turkish Holding Companies. It gives a clear illustration of how manufacturing can be innovative and environmentally sustainable while internationalizing. The study is also normative as it provides propositions based on creating ownership advantage and competitive advantage through combining foreign and domestic resources and with the support of their organizational forms and/or corporate governance structures. It also reconnoiters the main reasons and key drivers for innovation, corporate social responsibility, and sustainability while internationalizing.

Deriving from the above research statement, the research questions can be stated as follows: 1a) How do *innovation*, *corporate social responsibility*, and *sustainability* activities of TBGs relate to their *internationalization* processes? 2) Do TBGs integrate innovation, Corporate Social Responsibility (CSR), and sustainability to their internationalization processes? 3) How are innovation, CSR, and sustainability interrelated? 4) In what ways TBGs integrate innovation, CSR, and sustainability in to their internationalization processes? 5) What are the innovative activities TBGs utilize while internationalizing? 6) What are the corporate social responsibility activities TBGs utilize while internationalizing? 7) What are the environmentally sustainable activities TBGs utilize while internationalization? 8) Whether the theories of International Business (IB) can explain the internationalization processes of TBGs?

In order to examine this questions this study employs a dataset of 15 manufacturing parent companies - holding firms, mostly made up of family-controlled business groups consisting of 200 of subsidiaries that conduct cross –border manufacturing in 17 countries mostly in the region of Europe. Data on business groups

were obtained from “MarketLine Advantage”, “OneSource”, “DataStream”, and companies’ annual reports. The sample includes some firms listed as ADRs such as Haci Omer Sabanci Holding A.S, Koc Holding, and Zorlu Holding, and those parent companies have at least one subsidiary firm (Arçelik A.S, Teknosa İç ve Dış Ticaret, Vestel Beyaz Eşya Sanayi ve Ticaret A.S etc.), quoted on the Borsa İstanbul (Bİ).

Research is based on *explanatory case study method*. It is *descriptive* as well as the *explanatory*. This part enables the research to examine of the relationships of the *explanatory variables*, namely *innovation*, *corporate social responsibility*, and *sustainability* with TBGs’ *internationalization* processes.

## **II. Chapter: Background Information on TBGs**

For many decades the TBGs<sup>1</sup> have been the drivers of Turkish economy (Bugra, 1994; Öniş, 1992, 1995). They have been in the seen since the beginning of the foundation of the Republic of Turkey in 1923 from the ashes of an 800 year old Ottoman Empire (with inclusion of Selcuk Empire). Turkish business groups can be identified as family-owned holding companies. They are mostly known as the essential form of large business institutions in the Republic of Turkey (Bugra, 1994; Bugra and Üsdiken, 1995; Öniş, 1995).

Their active undertakings, however, came with the industrialization process initiated by the Turkish government in the 1930s (Öniş, 1996). Yet, the real acceleration of their activities began with the stabilization program of 1980, which was instilled to

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<sup>1</sup> A few examples of Turkish Business Groups and/or family-owned business groups include Koc Holding, Sabancı Holding, Zorlu Holding AS, Calik Holding, Eczacıbaşı Holding, and Yazici Holding. These firms are among the largest firms by total assets in the Turkish Market (home-country market) and in the host country markets. Many family groups also have well-established historical presence in their home country market.

correct major economic problems of the late 1970s through macroeconomic policies (Öniş, 1992).

Hence, began the liberalization and internationalization agenda. There were three goals for the stabilization program: 1) Reduction of government intervention in business and market activities; 2) Shifting from inward-looking, import-substituting industrialization processes to export-led growth; and 3) Attracting Foreign Direct Investment (FDI), (Öniş, 1992). This program actualized what it meant to do in a short time and led to high level of exports of manufactured goods. Acceleration of exports was also enhanced with the entrance of the Republic of Turkey into the Customs Union in 1996 (Sunar, 1996).

As it can be seen, most of the TBGs started as manufacturing firms with the encouragement of incumbent governments. Having had long experiences with manufacturing and exporting they developed innovative and sustainable capabilities along with corporate social responsibility objectives over the years. Hitherto, their activities were supported by the incumbent Turkish governments, but most importantly, by their corporate governance structures as family-owned holding companies.

### **III. Chapter: Theoretical Discussion – Previous Literature**

Due to the interrelations of several factors within the internationalization processes of TBGs, it is crucial to examine the previous literature accordingly. Since innovation, corporate social responsibility, and sustainability as the main explanatory variables, the literature review and its analysis in this section integrate the application of these variables. In order to be able to do so, all the variables are included in each category of literature review. However, prior to the examination of the literature review

on business groups' innovation, corporate governance/corporate social responsibility, and sustainability factors, this study explores various areas of international business that ranges from strategy to foreign direct investment (FDI).

The modern international business (IB) and trade theories have evolved around Hymer's ideas. Kindleberger has questioned how and why the transferable advantages are important (Kindleberger, *American Business Abroad*, 1969) and what the role of policies in internationalization process (Kindleberger, 1980). Dunning contributed the field via exploring how these transferable advantages related with ownership, location, and internalization aspects of FDI (Dunning, 1979; Dunning, 2001). Porter looked at the industrial and market specific features that attract FDI (Porter, 1998; Porter, 2008). Plentiful other international business (IB) scholars focused on stages of internationalization (Johanson & Vahlne, 1977), decision-making process on FDI (Aharoni, 1966), decision-making process of small and medium sized business on FDI (Buckley J. P., 1989), institutions role in FDI (Peng, Wang, & Jiang, 2008), and country specific advantages (Dunning, 1988).

International Business and management theories attempt to explain firms' operations in international markets through various views. Therefore, it may be important to begin the analysis of previous literature, first with innovation, corporate governance/corporate social responsibility, and sustainability. This enables the study to better observe the operations of TBGs. Prior to explaining the three main categories of factors that relate to previous literature, it is crucial to integrate Business Groups' literature, as TBGs are a network of Business Groups.

### *III.i Business Groups*

Khanna and Rivkin defined Business Groups as “firms, which though legally independent, are bound together by a constellation of formal and informal ties and are accustomed to taking coordinated action” (Khanna & Rivkin, 2001, p. 47). Even though there is a consensus on the business groups’ definition, ubiquitous presence (such as; South Korea’s Chaebols, Japan’s Keiretsus, Indian’s business *houses*, Turkey’s *holdings etc.*), and their unique structures (Carney, Gedajlovic, Heugens, Essen, & Oosterhout, 2011) are so complex that researchers are not able to analyze them effectively in order to identify their relations with the outcomes of failure or success.

Recent literature displays that institutional failures and inadequacy of physical infrastructure are always present in emerging market economies. These failures are mostly related to corruption, inefficient capital market, underdeveloped infrastructure, and the absence of intermediary institutions (Khanna & Palepu, 2011; Khanna & Palepu, 2010). Henceforward, in most emerging market countries *businesses groups* are established in order to mitigate negative impacts of the pervasive market conditions, diversify their risk, and overcome market failures (Yiu, Bruton, & Lu, 2005; Khanna & Palepu, 1997; Leff, 1978). However, according to the research of the study factors of inefficient capital markets and absence of intermediary institutions are not necessarily the case for the initiation of TBGs.

*KİT*’ler (*Kamu İktisadi Teşebbüsleri*)<sup>2</sup> in Turkey business and business groups were historically started because there was a need. Most of them were created during the

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<sup>2</sup> *Kamu İktisadi Teşebbüsleri (KİT*’ler) are organizations, which also include firms that utilize national resources for the economic activities. In most cases, they are

beginning years of the Republic of Turkey (1923) and continued to expand and developed well into the 1930s and 1940s. During the 1930s when the world was witnessing lingering affect of the Great Depression, Turkey was economically very stable with a blooming market due to existence and countrywide expansions of these businesses as well as political and social institutions.

Since approaches to business formation and the accompanying corporate governance structures and government regulations along with social and economic factors differ, emerging market business groups cannot be classified as one lump sum unit. Due to these differences, there is a rich diversity of corporate governance structures in the international arena. According to Berle and Means (Berle & Means, 1932), as businesses mature that separation of ownership and control factors change.

This is specifically true for the TBGs. Mahmood, Zhu & Zajac suggest that business groups have diverse abilities due to variety of member characteristics of business group associate firms (Mahmood, Zhu, & Zajac, 2011). Differently formed business groups have been engaged with different business activities since business groups are defined as “a set of firms collectively internalizing the capabilities” to execute complex projects (Colpan, Hikino, & Lincoln, 2010, p. 725), hence gaining knowledge and reducing their transaction cost. Here knowledge is derived from the OLI paradigm as firms internalize knowledge by adapting to the country structures, they reduce risk and maximizes the shareholders’ benefit through their firm specific advantages (FSA) (Dunning, 1993). Therefore, business groups can maintain their activities in variety of industries and commercial fields (Mahmood, Zhu, & Zajac, 2011) and can have competitive edge in

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supported by the national government of Turkey. In recent years, they have been going through a shaky wave of privatization.

host countries (Colpan, Hikino, & Lincoln, 2010). However, the literature stem on business groups failed to provide what kind of business practices would create positivity and whether or not if there are any other reasons that can alleviate market failures to form business groups.

In his seminal work, *The International Operations of National Firms*, Hymer criticized preceding scholarly works on relying assumptions of perfect market, disregarding differential among countries and industrial differentials, barriers to trade, and internally transferable advantages that a firm may have (Acemoglu & Johnson, 2005; Buckley, 2002).

Although the previous literature related to business groups mostly focuses on the formation of these firms, and states that it is justified by the shortcomings of the emerging market host countries (Khanna & Palepu, 1997; Leff, 1978; Colpan, Hikino, & Lincoln, 2010). However, it is arguable that the explanation based on failure or shortcomings of emerging markets. One another major flaw this argument is that, emerging market countries have been integrating market reforms to better their economies. Most of the businesses created in these markets start after the establishment of reforms. These attempts result in improvements on capital, job, final good, and labor markets as well as institutional quality. Under these conditions, transaction cost approach envisages that business groups will either reduce the number of their affiliates or abandon such organizations to avoid any excess organizational costs (Hoskisson, Cannella, Tihanyl, & Faraci, 2004; Lee, Peng, & Lee, 2008; Ramaswamy, Purkayastha, & Petit, 2017). Some of the exclusive benefits of being part of a business group will either diminish or completely vanish. However, the increasing number of the business groups



all over the emerging markets and their initiation with internationalization processes towards advanced countries puts that iteration in question. For instance, Belenzon, Berkovitz, and Rios highlighted more than twenty six thousand business groups that are originate from the Western European countries, which have prominent presence in developed countries (Belenzon, Berkovitz, & Rios, 2012).

Chaebols in Korea, Keiretsus in Japan, and Holding Companies in Turkey have become the not only steam power of their relative domestic economies, but also the international markets (Pesek, 2013; Khanna & Palepu, 2011; Kim, Hoskisson, & Lee, 2015; Colpan & Jones, 2016). However, there are a few, if any, studies on why these firms prefer forming business groups prior to internationalization.

On one hand, it can be argued that emerging market firms differentiate themselves from advanced country multinationals through their developed competitive capabilities as a result of inter-firm networks and incorporation with other firms in their immediate area (Guillen F. M., 2003; Schmitz, 2004; Huggins & Johnston, 2010; Hoskisson, Canella Jr., Tihanyi, & Faraci, 2004). They use their connections to facilitate or access knowledge and resources in creating new products. This is also the case for upgrading readily available products in the market and to meet needs of other businesses (McDermott & Corredoira, 2010). However, this argument is neither sufficient to explain the existence of business groups, nor it sheds light on Transaction Cost Economics (TCE) argument of business groups.

On the other hand, business groups can be seen as networks between society and enterprises. The more they creates subsidiaries, the more these firms could potentially lead to a broader band of information flow between business groups and firms. Firms can

create such value that it might exceed the burden of transaction cost of their affiliation with different businesses. The TBGs may be the facilitators that enable other emerging business groups to capture information about other market players and then facilitate the information flow among group members. Hence, business groups does not only enable firms to allocate sources in order to overcome inefficiencies in the context of emerging markets, but also helps them to become a part of the society.

Being part of a business group leads to an increasing collaboration and interaction between various actors and signify an organizational response to the complexity of serving in diverse markets. Several intra- and internal networks are essential to successful knowledge flows, which subsequently affect a business group's successful innovational activities. In Turkey, various information outlets enable the groups to innovate. These outlets range from national government institutions to institutions of municipalities.

This phenomenon is truly evident in Turkish Business Groups since they are an integral part of the society in which they conduct their businesses. They adopt, develop, and grow in such manners that they become harmonious with the society that is surrounding them (Crossan & Apaydin, 2010). This historic embeddedness in Turkish culture allowed the establishment of these companies as holdings in the earlier period of the republic to meet the societal needs with the support of the state. Even after they become private entities and the government withdraws its support to supplement free-market dynamics, this integration, remains as an integral part of the business culture. Therefore, it can be argued that the bond between TBGs and the society, whether or not domestic or international, gives them the needed skills and cultural understanding that are prerequisites for creating innovation.

Turkish Business Groups utilize their ties between business group-affiliated firms to leverage their understanding on cultural needs in a host country. This understanding has become a framework for their operations. Under the above framework, the key drivers behind the innovative internationalization processes of TBGs, could be listed as socio-cultural foundations and the network systems of business groups

### *III.ii Innovation:*

Innovation as a process has always been included in the early previous literature and beyond. Today, more and more firms realize that if they do not innovate, they will lag behind their competitors and lose the market share to them. The recent technological and infrastructural developments have enabled businesses to allocate resources among cross-border markets. They provide opportunity for multinational corporations (MNCs) to expand their economic activities globally and compete with their competitors overseas. These new changes bring complications to conducting international business. One of the many struggles that multinational corporations have come across while expanding their overseas operations is the new business environment. For example, when a company goes overseas, it usually faces new sets of customers, supplier network, competitors, and substitute products. Porter by recognizing these problems creates his “Five Forces” model.

The five forces model is a framework that recognizes influence of an industry’s organization on competition level within that industry as a business strategy. Porter suggests that industries and how they are constructed can determine the competitiveness and performance of a firm (Porter M. E., 2008). Therefore, he claims that firms do not only focus on market size, but also the characteristics of the

industry when they internationalize, since they have direct impact how firms conduct business. Therefore, innovation is necessary for the survival of the firm.

Porter posits in his articles, “Cluster and the New Economics of Competition” (1998) and “Competing Across Locations” (1998), that there are two main reasons why location is still relevant. The first reason is performance among nations (Porter M. E., 1998). The second reason is the firms favor the certain industries in certain locations (Porter M. E., 1998).

Furthermore, the choice of location is not limited to just choosing home base country or the specific locality. It also is a decision about configuration (value chain locations in a country), coordination (local circumstances), and numbers of sites. Therefore, a firm should be careful about their global strategy. Firms should keep certain activities together to boost their abilities to innovate and produce efficiently (Porter M. E., 1998) when configuring value chain related activities and openness in TBGs expansions to EU countries.

Moreover, Porter argues that firms favor certain locations due to certain industrial clusters to boost their competitive advantage (Porter M. E., 1998). Clusters can be defined as an array of firms that are involved in interrelated economic activities (Porter M. E., 1998). These clusters, according to Porter, bring certain advantages for firms. These advantages are related to human resources that allow an organization to gather highly trained individuals to increase efficiency. Technological and infrastructural advancements are due to dense commercial activities in a certain location, and on how they attract new businesses. Hence, being

in a cluster and a certain location can provide sustainable competitive advantages. In the EU, TBGs are able to gain sustainable competitive advantage.

On the other hand, scholars like Dunning (Dunning, 1993) and Rugman & Verbeke (Rugman & Verbeke, 1993) argue against Porters ideas. First, Dunning challenges idea that economic well-being of nation-states provides certain location advantages for firms. This is specifically correct for the TBGs. Second, Rugman & Verbeke (Rugman & Verbeke, 1993) confront the Porter's idea (Porter, 1998) that firms rely on for their core competencies and innovation.

Dunning starts his critique with asking, "how does globalization of economic activity affect the competitive advantages of individual Nation States?" (Dunning J. H., 1993). He underlines the fact that globalization is affecting nation-states through asset and value creation. However, these are already provided in Turkey through institutions. These assets are human capital, technological capacity, organizational systems, transportation and communication. Since these can be obtaining through MNCs activities, he suggests that these are not location bound competitive advantage. Dunning rather proposes that these advantages can be acquired through internalization (I) and ownership (O) strategies that are followed by MNCs (Dunning, 1979; Dunning, 1993). Hence, he refutes the idea that national advantages provide competitive advantage for the firms. What is important is the integration of the innovation to their business processes.

Eclectic Theory can also be related to innovation. The theory suggests that there are three sets of elements that determine a firm's ability to exploit market opportunities overseas (Dunning, 1981). These elements are ownership advantage, internationalization advantage, and location advantages (Dunning, 1981). Each advantage has different

features and implications. Even though Dunning provides what the implications of these advantages are with integrating macroeconomic (location), microeconomic (ownership and internalization) theories, a good amount of scholarly work also helps shaping the framework over the years to become what is widely accept as “the” international business theory (Dunning, 1981; Eden & Dai, 2010). All three categories of advantages are supplemented through innovation. As a matter of fact, ownership advantage directly relates to innovation as it does not necessarily talk about physical assets only, but gaining market share through innovation.

Ownership (O) advantages are the specific and unique features that a firm has without relating itself with a certain location or industry (Dunning, 1981). These factors are mostly intangible assets. For instance, managerial skills, access to strategic commodities, market knowledge, and know-how are firm specific advantages (FSA) that reduce transaction costs (Rugman, 2008). They are hard to replicate and imitate by other firms; however, they are transferable among MNCs (Dunning J. H., 1979; Buckley, Clegg, Cross, Liu, Voss, & Zheng, 2007). Therefore, owning them provides competitive advantage to a multinational company, and an opportunity to exploit oversea markets via FDI and innovation (Dunning, 1979).

Location advantages (L) are directly associated with the factor endowments in a country (such as low labor cost, natural resources, and abundance of production factors) (Buckley & Hashai, 2009) and market failures due to structural imperfections (trade barriers and government policies) or presence of high transaction cost (absence of intermediate institutions and information asymmetry) (Dunning J. H., 2001; Buckley & Casson, 1976). Unlike the FSAs, these are *location bound* and not readily available to

transfer internationally. These are the *country and market specific attributes*. Therefore, having a certain sets of skills to reduce their affect on conducting business can create a competitive advantage for a firm in a certain market (Dunning J. H., 2001). For instance, having access to a *financial resource* in *home country* may enable a multinational company to go abroad and exploit a market, where the capital maybe scarce and not freely available to all market players (Dunning, 1988; Khanna & Palepu, 2010). This is exactly what TBGs have done in the European markets through innovative practices.

On the other hand, internalization (I) advantage stems from a firm's ability to conduct business more efficiently and innovatively than relying on external players or market dynamics (Buckley & Hashai, 2009; Dunning J. H., 1988). According to the Dunning, in contrast to what classics suggests, markets do not have the perfect information, eliminated market entry barriers, and frictionless transactions (Dunning, 1981; Hymer S. H., 1976). Similarly, different attributes of the locations such as psychic (culture, language, commercial, etc.) and physical (distance from home country) characteristic of a host country can give a rise to inefficiencies at production or transferring process at MNCs' cross-border operations. Hence, passing the rights of conducting business overseas under any kind of entry mode (e.g. joint venture, export, or licensing) would only increase value lost (Agarwal & Ramaswami, 1992). This may not necessarily apply to operations of TBGs. Therefore, to exploit the potential market opportunities; firms should leverage internalization capabilities to internalize market failures rather than externalizing their business dynamics and innovation (Dunning, 1988).

Eclectic paradigm framework explains how firms internalize and use ownership advantages with combination of location specific advantages to exploit imperfect market conditions. It suggests that various types of international companies employ diverse sets of OLI advantages to exploit market imperfections in different types of market (Buckley J. P., 2011). These market imperfections are addressed by TBGs through their innovative processes.

However, the OLI framework does not diagnose the managerial decision-making and internationalization process themselves. Even though Dunning classifies managerial attributes under the “ownership” advantage as an intangible asset (Dunnin, 1988), the OLI framework does not provide analytic approach on internationalization strategies, innovative practices and decision-making processes of firms.

Similarly perspectives when it comes to innovation Rugman & Verbeke follow different perspective than the Dunning. They propose certain extension for the Porter’s Diamond Model. Scholars advocate that already established diamond framework has shortcomings in terms of explaining the subsidiaries and home base activities of multinational firms. In order to remedy this problem, Rugman and Verbeke propose a “diamond” model with an upgraded “double diamond” model. The double diamond model suggests that an organization should consider both home country diamond and the host country actively involved. The consideration of two diamonds provides information about market structure, how to create a subsidiaries. Henceforth, scholars promote the idea that considering not only home country diamond, but also target market diamond will explain the role of subsidiaries in terms of strategy and also clarify the role of home



country diamond (Rugman & Verbeke, 1993). Specifically in this case, competitiveness is related to innovation.

The resource-based view (RBV) distinguishes itself from industry-based theory through its core understanding. The core understanding the theory is explaining how firm resources can supplement and boost organization competitiveness and its innovative capabilities. In other words, the resource-based view adopts a perspective that explains source of competitive advantage of a firm via its resources. According to the theory, if a firm hold economically valuable (V), rare (R), in-imitable (I), or organization (O) resources they will boost its competitiveness (Barney J. , 1991).

In summary, Barney suggests in his work that firm specific capabilities provide strategic choices/advantages for a firm (Barney J. , 1991; Peng, Wang, & Jiang, 2008). He posits that the combination of organizational abilities such as innovation along with resources is the fundamental of creating sustainable competitive advantage. This revolutionary approach influences many scholars and contemporary scholarly works (Peng M. W., 2001).

The two of the most prominent scholars that further RBV are Prahalad and Hamel. These scholars come up with the idea that in order to efficiently utilize resources in organizations, businesses need to distinguish their innovative abilities that provide them production and technologic dexterities (Prahalad & Hamel, 1990). They posit that an organization should exemplify a tree, and the core competencies should be internalized to provide stem for business units (branches) and their leaves, flowers, and fruits (end products); this way, businesses can leverage and invest their core competencies and build up sustainable competitive advantage through innovation.

However, building sustainable competitive advantage is not as easy as it seems because it is related to innovation in relations to its competencies. Prahalad and Hamel highlight that it is also related to core competencies (Prahalad & Hamel, 1990). They require collective learning and integration of several streams of technologies. Since it is very important to control and manage knowledge flows in a firm (Hymer S. H., 1960; Gupta & Govindaraja, Knowledge Flows within Multinational Corporations, 2014), organizations should invest in increasing subsidiaries' knowledge absorptive capacity and information/knowledge transmitting abilities (Song, 2014; Michailova & Mustaffa, 2012). TBGs able to transmit information their subsidiaries, and increases their absorptive capacity through innovation.

In contrary, Buckley and Casson (Buckley & Casson, 1976) suggest in their earlier work that it is not the case. They analyzed MNCs based upon a framework that Ronald Coase came up. Their study reveals the fact that dispersing economic activities can cause openness against exogenous threats (Buckley & Casson, 1976). Therefore, they back up the idea that organizations should internalize all the skills and knowledge regardless their importance to the company. Otherwise, organizations will face unpredictable costs that are associated with market dynamics. Therefore, integration of innovation can ease the exogenous threats in the host countries. This is specifically the case for TBGs.

Innovation of TBGs can also be analyzed through the institution-based perspective, which suggests that the international business stem is mostly concerned with advanced economy multinationals, hence, they fail to recognize how different economic environments and institutions can play role in success or failure of a multinational

enterprise (Peng, Want, & Jiang, An institution-based view of international business strategy: A focus on emerging economies, 2008). Therefore, Peng, Want & Jian suggest that in order to comprehend global strategy better it is important to recognize not only resource and industry based views, but also institution based perspective as well as innovation (Peng, Want, & Jiang, 2008).

Institution based perspective is a viewpoint suggests that nongovernmental organizations (NGO) and institutions play crucial role of a multinational companies. This is truly the case in Turkey. It provides further explanation than already established fact of “institutions matter” standpoint. It argues that every country and economy has different institution landscape. For example, emerging market countries have institutional gaps. Comparing to advanced economies, the information asymmetry and institutional voids are prominent and evident. Navigating in these markets is relatively riskier and harder (Khanna & Palepu, Winning in Emerging Markets, 2010). Therefore, it can be derived that global strategy consists of three dimensions: institutions based view, industries based view, and resources view. These theories somewhat explains the operations of TBGs in Europe.

The earlier stage of international economic literature point out that companies go international due to economies of scale, leveraging standardization, quality, based national endowments, and exploiting comparative and competitive advantages (Smith, Wealth of Nations, 1790; Laursen, 1952; Robinson, 1956). However, transition from international economics to international business reveals that this may not be the sole motivation for firms to go international, innovation in itself plays a crucial role in the case of TBGs’ expansion and operations in host countries.

Innovation can also be addressed through Vernon's Product Life Cycle theory. In his earlier work, Vernon put forward the idea that one motivation of the firms to go international is related to product life cycle (Vernon, 1966). Product life cycle perspective suggests that a product goes through certain stages. These stages are (1) introduction, (2) growth, (3) maturity, (4) saturation, and (5) decline. To put it other words, an organization first introduces a product to home market. Afterwards, this product gets standardized, and it becomes readily available. When it hits this point, the product may no longer be attractive or demanded, and slowly it declines. Firms then introduce it to overseas markets to leverage their technological and economic advantages. According to Vernon, advanced economies have these advantages more profoundly. The flow of internalization usually goes from advanced economies to developing economies. Therefore, Vernon proposes that a business should be close to its home market while establishing efficiency and communication among potential cross border market (Vernon, 1966). Through this the presence of TBGs in Europe can be justified, as Turkey is in the same region.

In a similar fashion, Johansson and Vahlne (Johanson & Vahlne, 1977) observe international process of the MNCs. They study Swedish firms and explain their internationalization processes based on Behavioral Theory (Johanson & Vahlne, 1977). Their study reveals that the firms follow a different route than Vernon suggests. Their initial thought process is not usually depended upon the product itself, but, rather, firms' acquisition of knowledge on target markets. Hence, they propose Uppsala model. As other theories, Uppsala model also consider innovation through acquisition of the knowledge in firms business processes.

The Uppsala model advocates that organizations go overseas through acquiring knowledge and making decisions accordingly (Johanson & Vahlne, 1977). Internalization is a process rather than a short-term project in this sense. Organizations gather information about a market through engaging with the potential market via four steps: export activities, exports via agents, subsidiaries, and shifting production to the foreign land. The model reason that a firm's market commitment depends upon the information gathered at the process of internationalizing rather than solely relying on "... factor prices and different products" (Johanson & Vahlne, 1977). Although this model somewhat explains the operations of TBGs in the EU, it falls short of explaining the knowledge and the skill they bring with them through innovation.

Shane (2000) suggests that to create entrepreneurial opportunities (i.e. situations where services & goods can be sold for more than what it cost to produce them) knowledge flow between the external resources and the firm has to generate information symmetry. In alliances, the ability to create this symmetry is particularly important, as it is linked increased opportunity identification. Buckley (2009) further suggests that arranging activities to gain and employ alliance knowledge is vital for entrepreneurial firms; the entrepreneurial orientation - or support - toward those alliances thereby determines their stand as a key strategic resource for value creation. Two of the most prominent examples of TBGs are Koc Group and Sabanci Holding.

Entrepreneurial activities geared at innovation and organizing and sharing alliance knowledge can thus influence alliance capabilities and foreign market success. From the knowledge-based view, competitive advantages are achieved through the implementation of strategies based on ownership of unique resource combinations

(Barney, 1991). Alliances can grant access to foreign market knowledge, and when that knowledge is utilized combined capabilities arise. Alliance capabilities strengthen when alliance knowledge is used to achieve strategic goals through innovation (firm and alliance level).

The knowledge flow itself has to be organized to ensure that it can be put to productive use. Consequently, knowledge management mechanisms have to be in place. Since alliance partners have different learning motives, alliance knowledge might be more difficult to transfer (compared to intra-firm). In this regard, the entrepreneur's ability to organize alliance knowledge can affect the barriers to alliance knowledge transfer. In addition, knowledge can be tacit and that is in itself creates a barrier to transfer and to acquire.

Alliance partner firms might also not share the same inter-firm knowledge acquisition and dissemination needs as they have different learning environments. To achieve similar learning from the alliance, entrepreneurs must aim to realize common benefits from the alliance and allocate resources to learning mechanisms (e.g. by establishing formal ways of sharing market information to build trust and learn from the partner's foreign market experience) (Ficici et al., 2009).

Another view states that the multinationals that are global, actually operate regionally in one of the three major trade regions called regional triads that includes US, Canada, European Union and Japan (Rugman, A.M, 2000). There are only few multinational corporations that are truly global. Out of the 500 world's largest firms studied only 9 have enough presence (at least 20% of total sales) in all the three regions. Most of the other firms in this sample operate within one home region and these firms

account for over 90% of the FDI and over 50% of world trade, in fact in the form of intra company sales. When it comes to TBGs, they operate within their region, but they also expand to other parts of the World. The resources and knowledge they gain in other parts of the world are utilized and integrated in the EU countries.

Therefore, it might be an important factor to include Globalization Literature with an application of TBGs' home country, Turkey. As much of the previous literature on globalization states that MNCs do not go much beyond the home country region. This is due to the international organizations that facilitate the globalization like IMF and World Bank failed their mission (Stiglitz, J.E, 2004). IMF's mission is to bring world economic stability. But approximately 100 nations faced crises. World Bank's mission is to eradicate world poverty.

Globalization factor may bring huge benefits if embraced in good way. For example, East Asian countries embraced it on their own terms and at their own pace and saw great success. The problem is with the narrowly defined economic aspects of globalization and organizations that drove globalization by pushing rules based on those narrowly defined economic ideas and policies. The "one-size-fits-all" economic policies are all based on commercial and financial interests but not aligned with the real mission of these organizations – the welfare of people. These organizations pushed the liberalization concepts (Washington Consensus ideas, which were made as response to the Latin America crisis) on premature capital markets. IMF forced free trade liberalization in developing countries before these countries strengthened their industrial environment to effectively compete with foreign companies.

Early scholars try to elucidate transactions, which are exceeding borders of a nation, at macro-economic scale via using applied economics dynamics (Morgan & Katsikeas, 1997). For instance, Adam Smith investigated why and how nations trade through wealth accumulation and gross domestic (GDP) perspectives (Acemoglu & Johnson, 2005). He suggested that a country's ability to produce a good or service at the lowest possible cost provides an "absolute advantage" to a nation. The advantage enables the country to sell goods in overseas and accumulate "gold" and "silver" (Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*, 1790). Therefore, he concluded, countries use the production related advantage to conduct business at overseas with the motion of accumulating wealth (Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*, 1790). Scholar further explained that to come up to the point of wealth accumulation following assumptions should hold: (1) presence of perfect information, (2) no transaction cost(s), (3) no market entry barriers, and (4) no market interventions (Morgan & Katsikeas, 1997). TBGs, to gain advantage and to accumulate wealth, integrated the innovative processes to their business operations within the European nations.

Nearly a decade later, based on the similar (if not the same) assumptions, Ricardo postulated the idea that the trade is driven by the differences among countries' "technologic development" (Sraffa, 1951). He hypothesized the idea that countries produce goods not because they have the "absolute" advantage, but have relatively less opportunity cost (Sraffa, 1951). The scholar emphasized the comparativeness of the cost in terms of opportunity to produce another good (Acemoglu & Johnson, 2005).



Comparative advantage theory explained how producing a relatively low opportunity cost good and services promotes the import and export activities in a country (Sraffa, 1951). It showed that trading the low opportunity cost goods and service benefit both end of the transaction (Sraffa, 1951). However, did neither Ricardo's contribution nor Smith's explanation suffice to explain why one nation have comparative or absolute advantage over the other (Morgan & Katsikeas, 1997). TGBs achieve this through their innovative processes in the host countries.

Unlike the previous theories, Heckscher & Ohlin's "factor endowment theory" manages to partially explain one component of these advantages, input perspective. According to theory, a country's source of competitiveness stems from its factor richness (Bertil, 1967). A country will produce a good that require an input that is abundant (Bertil, 1967) and import ones require an input that is scarce (Bertil, 1967). This enables countries to reach a point where goods and services are relatively less expensive and more available to consumers in both countries (Bertil, 1967). For instance, if a country has a cheap labor cost, it produces a good that requires labor-intensive process (Bertil, 1967). If same country has scarce capital, it imports good that necessitates high capital in their production stage(s). Since the country will have both goods available in domestic market in relatively low prices, it creates prosperity.

Other authors recognize the shortcoming of the previously developed frameworks. In his seminal work, *The International Operations of National Firms*, Hymer criticizes preceding scholarly works on relying assumptions of perfect market, disregarding differential among countries and industrial differentials, barriers to trade, and internally transferable advantages that a firm may have (Acemoglu & Johnson, 2005; Buckley,

2002). This is true for the TBGs, because they have been transferring their innovative capabilities one location to another.

To remedy aforementioned shortcomings, Hymer examined the market failures and how they affect the firms conducting business abilities (Morgan & Katsikeas, 1997). He came up with the idea that market imperfections provide motives for firms to internationalize. They give them chance to eliminate the competition at the overseas via controlling them or investing in their competitor to acquire and/or control certain skills (Hymer S. H., 1976). This approach provided initial footsteps to develop concept of foreign direct investment (FDI) and separating FDI from portfolio investment. This is specifically true for TBGs. For these firms' transferable advantages, and internalizing as well as acquiring capabilities are practiced readily as the host country-attractive markets that they operate in are able to provide opportunities through their innovation. This is in line with previous research suggested by International Business scholars (Buckley J. P., 2011; Morgan & Katsikeas, 1997).

Many scholarly works have been dedicated to explain how MNCs exploit the market opportunities overseas (Buckley & Hashai, 2009; Dunning, 1988; Peng, Wang, & Jiang, 2008). Even though the OLI theory has emerged as the most widely used framework to explain their cross-border activities (Dunning, 2001), it did not provide a systematic approach on diagnosing the internationalization processes of firms (Eden & Dai, 2010; Rugman, 2008). Uppsala internationalization model to demonstrates the internationalization process of firms since most of the other theories are involved around it (Morgan & Katsikeas, 1997).

Johanson and Vahlne, to explain how firms go abroad, develop the Uppsala model (Morgan & Katsikeas, 1997). In this model scholars highlight that firms' internationalization process is an incremental procedure since it requires a gradual acquisition of the information through different level of commitment to invest in overseas (Johanson & Vahlne, 1977). They reasoned acquiring information will reduce the ambiguity and risk factor which lead managers to asses their commitment path for the cross-border initiations. In other words, scholars postulate the idea that firms take small risks at the beginning of the internationalization process to gather information about a market in order to assess whether the further commitment is a feasible or not. Therefore, Johanon and Vahlne conclude that multinationals go through four successive steps to fully commit a market: (1) no ordinary export doings, (2) export through autonomous agents, (3) founding of an foreign sales subsidiary, and (4) establishing abroad production facilities abroad (Andersen, 1993).

Even though the model does not entirely explain the internationalization process of MNCs it does provide relatively dynamic model than the previous ones (Aharoni, 1966; Morgan & Katsikeas, 1997; Andersen, 1993) that fail to account for innovation and managerial decision aspects (Morgan & Katsikeas, 1997). Therefore, contemporary scholars such as Cavusgil & Knight (Cavusgil & Knight, 2015) focus on different stages of the internationalization process and the firm commitment to explain internationalization processes (Morgan & Katsikeas, 1997; Rugman, 2008).

As host country factors the literature on FDI suggests that availability of the natural resources is not sufficient enough to attract foreign investors by itself (Kudina & Jakubiak, 2008). For cross-border capital investment takes place, a location should have

specific factors that meet MNCs' (1) resource-seeking, (2) market seeking, and (3) efficiency-seeking behaviors (Dunning, 2009, p. 22). According to the location determinants strand of the literature these factors are macro-economic attributes of the host country, institutional strength of the target market, infrastructure development level, corruption, and proven reserves of crude oil and gas (Veugelers, 2001; Klaus & Peng, 2005; Kwok & Tadesse, 2006; Buckley, Chen, Clegg, & Voss, 2016; Zvirgzde, Schiller, & Diez, 2013).

However, these theories fail to explain the contemporary FDI engagement of small and medium size enterprises in terms of managerial decision processes. Hence, the following part is devoted to explore decision making processes of multinationals with emphasize on their size. Therefore, the study applies this theory to EU operations of TBGs.

There are many reasons why a manager decides to conduct business overseas. Regardless of ones economic understanding or view, in order to assess the decision pattern, it is crucial to understand economic, social, and institutional environment that a firm conduct business (Aharoni, 1966). This necessity is due to their influences on managerial decisions. Both external and internal factors create impact on firm strategy to shift in different directions (Aharoni, 1966). For instance, a weak institutional environment can create ambiguity and force MNCs to go overseas to diversify its risk. Similarly, the economic conditions may cause struggle in terms of funding of daily projects and motivate managers to go abroad. However, all of these factors affect various types of firms' decision-making process differently. Buckley suggests that one of the

most important deviations of decision-making process among MNCs is the size of a firm (Buckley J. P., 1989). Most of TBGs in the EU are large size enterprises.

One of the most important implications of size is the risk perception. The managerial shortcomings of the small firms introduce new constraints compare to their larger counterparts (Penrose, 1995). For instance, a large multinational can provide accumulated know-how from different branches and managerial experience to realize an investment opportunity in an economy, which experience economic fluctuations (Buckley, 1989). Most TBGs do poses know-how and the managerial experience. Whereas, a similar scenario may seem undesirable for the SMEs since any additional risk factor can put their daily operations and funding means in jeopardy (Buckley, 1989).

Overall, the different internal and external factors affect internationalization processes of the multinationals in various ways depending on their scale. Relentless to its source, each shock creates a different response. Therefore, expecting all size of multinationals to behave in one certain way will prevent scholar to explain certain managerial decisions of firms and firm specific advantages. Therefore, above mentioned literature relates innovation takes up an important place to explain TBGs' innovation processes.

Reaching to the resources that cannot be easily obtained and gathering information that is hard to attain can accelerate the strategic thinking in creating a competitive advantage for a firm in a market. Competitive advantage can be defined as an organization's advantage as a result of access to an internal or external knowledge or resources (Macfarlane, 2014). However, just gathering resources or information is not

sufficient. The gathering and the usage of resources efficiently and effectively can give a firm its complimentary assets.

Complimentary assets are abilities or capabilities that are needed to conduct a successful commercial project. Usually, these assets are not intangible. Some of many examples can be listed as experienced leaders, well-structured human resources pool, successful marketing team, and internal training system. Without complimentary assets, a firm may or may not achieve to be competitive against its counterparts.

A firm can have all critical resources, however, the lack of complementary assets undermine the success of an organization. Therefore, an organization should become aware of complimentary assets and try to invest in them in order to successfully implement their strategic planning, it is crucial for international companies to utilize innovative capabilities and their technologies in their business processes in host countries. TBGs being aware of this situation and being multi-product companies integrated their technologically innovative process into their strategic planning. They were able to see in the very early stages of international strategies that innovation and technology equaled companies' performance both financial and social.

In the case of TBGs creating competitive advantage through innovation and environmental sustainability greatly supports their internationalization processes. This is previously stated by previous literature among the studies of various EBGs. For example, numerous studies focus on the characteristic of business' environment pressure and its influence on firms' innovativeness. These studies show that different internalization phases or methods of a firm can be supported through digitalization and innovation (Cassiman & Golovko, 2011; Venaik, Midgley, & Devinney, 2005).

The innovative activities of TBGs are encouraged by the Turkish government; this has also been the case historically. They are able to enter into designated sectors through the support of network mechanisms and through instruments like protection from foreign competition, and Government-subsidized bank credits (Bugra, 1994).

In addition, the innovative activities of TGBs are also stimulated by diversification procedures. Diversification, mostly unrelated, has been enabled by ‘technology acquisition’ and ‘project- execution’ capability that they have developed in the process of digitalization over the years (Amsden and Hikino, 1994).

Hence, attaining capability is a crucial factor in a specific economy, as firms compete with each other as a result of conflicting demand and cost pressures in a host country (Venaik, Midgley, & Devinney, 2005). In order to overcome this conflict, firms can tap into international markets. As a result, they learn new capabilities specific to a firm (FSA) (Dunning, 1988) and leverage these abilities to innovate in home country or innovate across the globe (Gupta & Govindarajan, 1991). Addressing the reason/s of a firm’s tendency to invest in certain markets rather than others is an important component to understand how business groups innovate.

As stated previously in the literature review related to corporate structure, in the process of innovating, firms may face corporate governance specific problems (Luo, Chung, & Sobczak, 2009). The business group affiliated firms are tied to each other in terms of ownership, control, experience, and knowledge flow (Khana & Palepu, 2000; Guillen M. F., 2003). However, the bond among companies may positively (Guillen M. F., 2003; Khana & Palepu, 2000) or negatively (Kim, Kim, & Hoskisson, 2010) affect firms’ ability to adopt and react market changes. Not being able to embrace the changes

can cause stagnation in innovation efforts. Therefore, investigating network relations and linkages between business groups and their innovative capabilities is crucial subject to understand business groups.

In line with the previous literature, the TBGs represent many innovative capabilities in different industries. For example, Koc Holding AS in its Petroleum Product Manufacturing operations clearly illustrates an innovative and efficient production to create lasting value through sustainability perspective. Sabanci Holding has been achieving innovation-oriented growth via design and production of high technology goods and household appliances. Zorlu Holding, through its technological advances and innovative practices, contributes to the larger society while maintaining powerful position in the world's market. Another example is ENKA Holding, as its able to innovate in engineering-related sector. Its completed and ongoing projects are constantly questioned and re-examined, so that innovative engineering solutions are being continually researched and developed for better and more efficient results.

In terms of innovation in research and development, Anadolu Efes takes initiative in developing varieties of barley and hop via R&D research (Anadolu Efes, 2014). TAV has been developing user-friendly mobile applications for consumers. Furthermore, the company is known for its Eco-friendly innovation in European market (ACI Eco-Innovation Award 2010). Similarly, Cukurova Holding has been undertaking all its endeavors based on a school of thought that promotes development and innovation. Yazicilar Holding has been big in the development of reliable environmental technologies and utilizing them in its social responsibility projects. Calik Holding leverages its sustainable values to innovate and promote socially conscious projects.



Borusan has been creating new ideas to produce revolutionary developments in steel pipe manufacturing in various types and dimensions that maybe utilized from car manufacturing to natural gas pipeline projects that pass through between various countries. Alarko Holding A.S gives importance to energy efficiency in designing and/or renovating their products of construction machinery. In the pharmaceutical industry, Eczacibasi is a prominent company that innovates for sustainable, high quality, and healthy living pharmaceutical products. It is the recipient of the "Most Successful R&D Center Award" in its sector (given by Turkish Ministry of Science, 2015).

### *III.iii Corporate Governance / Corporate Social Responsibility*

Corporate Governance directly relates to Corporate Social Responsibility, and it is perceived by previous literature as dealing with problems that may result if there is no separation of ownership and control. From this perspective, corporate governance would focus on: transparency, accountability, and responsibility (Fernando, 2009, OECD, 1997). However, when Corporate Social Responsibility piece is considered it becomes apparent that not only transparency, but also accountability plays a role in a firm's responsible operations in home and host countries. One of the important ways to understand Corporate Social Responsibility takes places while firms internationalize is their practice that relate to community and the environment. TGBs include socially responsible processes into their business operations as its in their culture and history.

To better integrate their social responsible projects, TBGs choose culturally and geographically proximity countries to their home country. Therefore, they introduce risk. When a company makes the decision of expanding its activities across borders, it faces a choice to make, where will be the investment taking place? Even though question

itself seems basic, the answer of it is very complex<sup>3</sup>. For instance, at the earlier years of IB developments scholars have tried to answer this question through similarities between countries and physical distance. Johanson & Vahlne (1977) come up with the idea that firms internationalize incrementally to avoid incurring cost that is due to faulty or misleading market knowledge. Scholars suggest that since choosing a similar market or location will reduce the riskiness of a market and ease the learning process, firms will invest at locations that are in close distance (Johanson & Vahlne, 1977).

Couple decade later, contemporary IB scholars suggest that closeness to a market by itself is not a sufficient reason to choose a potential FDI location, but cultural, behavioral, economic, and social distances can be basis of foreign direct invest location choice (O'Grady & Lane, 1996). More specifically, Nordstrom and Vahlne suggest that firms choose markets that have similar level of economic development, education, business language, and cultural norms (Nordstrom & Vahlne, 1992). Further studies also support that MNCs prefer internationalizing at markets that they can easily get familiar (O'Grady & Lane, 1996). IB scholars come up with the idea of “psychic distance”, which signifies the differences or similarities among two or more countries in terms of cultural and socio-economic norms (O'Grady & Lane, 1996) to explain the motive behind initial preference of TBGs.

However, this approach neglects the importance of other determinants among alternative location choices. For instance, it does not explain how institutional or integration of a country attract MNCs. In addition, the approach do not account for different advancements of various locations.

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<sup>3</sup> “Everything is related to everything else, but near things are more related than distant things” (Tobler, 1970, p. 236)

In the case of vertical integration, as it was discussed before, a company uses FDI to control different stages of production. If one overseas location has a high technology and/or the other or domestic market does not, it is possible that the company use high-tech facility to produce a certain good to meet the needs in other markets. This would allow reduction of input costs. However, in order to transfer goods from one place to another, two locations or corresponding markets need to have trade agreements that enable the “integration” and smooth transaction (O'Grady & Lane, 1996). This need can be met by regional integration agreements (RIA). This theory may explain TBGs behavior in international markets.

However, horizontal integration may not work its best if a country only relies on RIA. Horizontal integration implies increasing the manufacturing volume of a product via multiple production facilities (Acemoglu, Johnson, & Mitton, 2009). In this case, a firm needs to reach as many potential markets as it is possible on each location. Therefore, a country's integration to the global market and not limited to regional partners play a vital role (O'Grady & Lane, 1996). Both vertical and horizontal integrations are in line with the internationalization processes of TBGs.

Advancement in communication technologies, decrease of transportation costs, and reduced trade barriers allow firms and entrepreneurs reach information or a specific resource more cost and time effective than anytime before (Porter E. M., 1998). It enables countries, which are at the same development level, reach, access, and interpret the contemporary scientific knowledge equally (Vernon, 1966). However, according to the Vernon, it does not mean countries and firms can apply the acquired knowledge at same

proficiency (Vernon, 1966). They need a *habitat*<sup>4</sup> where they can leverage the acquired knowledge and skills (Porter E. M., 1998). The home country, Turkey, TBGs originated from, has the same development level, reach, access, and interpret the contemporary scientific knowledge equally.

Porter (1998) suggests that this habitat is the “clusters.” According to him clusters are “...geographic concentrations of interconnected companies and institutions in a particular field” that enable MNCs to compete against their counterparts since they stimulate “both competition and cooperation” (Porter, 1998). Silicon Valley is a good example of this. The MNCs, which are conducting business in the software sector, try to penetrate into the Silicon Valley even though operating in such a place could cost more. The reason is, the location attracts and offers the highly educated programmers, managers, suppliers, and buyers to MNCs. Also, it supplies network opportunities (Porter, 1998). In other words, location provides a “trade-off between minimizing production costs and securing access to product and factor markets” (Hill & Munday, 1992). Therefore, cluster becomes a key determinant of MNCs’ location decision. This theory does not explain the behavior of TBGs, because TBGs’ have their unique sets of tangible and intangible assets. These assets can be defined as know-how, managerial skills, innovative skills, network and skilled-labor.

Dunning criticizes the Porter’s cluster analysis suggesting that it neglects the nature of globalization forces. According to him, with the integration of the markets and advancements on technologies, the economic prosperity (capital), intangible assets, and

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<sup>4</sup> “In biological terms, some habitats lead to stronger and more resilient species that are able to roam. They prosper in other habitats compared to those species that have evolved there” (Porter, *The Diamond in Perspective* , 1990, p.174)

educated labor force are transferable all around the World (Dunning, 1993). Thus, a firm may not be in need of bounding itself at a certain location. It can leverage its firm-specific advantage to attract or acquire the resources it is in need of (Dunning J. H., 1993). Therefore, he highlights that it is not necessarily the cluster itself that provides the ability to exploit a market, but firm-specific advantages. But, this is not sufficient to explain the TBGs' internationalization processes. The group firms' unique set of skills and their ability collaborate boost their ability to internationalize.

Corporate governance is typically perceived by academic literature as dealing with 'problems that result from the separation of ownership and control'. From this perspective, corporate governance would focus on: The internal structure and rules of the board of directors; the creation of independent audit committees; rules for disclosure of information to shareholders and creditors; and, control of the management (Fernando, 2009, p. 9, OECD, 1997).

EMC literature that concentrates on governance suggests that EMCs have intensified their overseas operations. In addition, their role in the global economy has become more prominent during the last decade (Gubbi, Aulakh, Sougata, Sarkar, & Chittoor, 2010). The previous literature examines governance both at the home country and firm level. Firm level analysis illustrates the negative aspects of internationalization processes of these firms. It is indicated that while in advanced economies institutions and market dynamics work efficiently. Yet in emerging market countries, markets as well as institutions suffer from information asymmetry due to institutional voids (Khanna & Palepu, 1997). In this way, agency problems arise within the firms since managers desire to follow their own interests and to create costs to shareholders (Agrawal and Knoeber,

1996). Hence, understanding the emerging market multinationals require understanding the economic and institutional landscape in their home countries.

In emerging market economies there are various number of market and institutional failures. Some of these imperfections are presence of state governance mechanisms, insufficient transparency regulations, lack of intermediary institutions, and financial transparency (Khanna & Palepu, 1997; Leff, 1978; Yiu, Bruton, & Lu, 2005). Organizations, therefore, form conglomerates and business groups to diversify their risk and create balance in their portfolio (Yiu, Bruton, & Lu, 2005; Khanna & Palepu, 1997; Leff, 1978).

Corporate governance mechanisms as well as ownership structure, dividend payout, cost of external finance and market valuations have been significantly impacted due to variations in home country legal structure and the laws designed to protect investors, according to a growing body of literature valuations (La Porta, Lopez-de-Silanes, and Vishny (1999); Klapper and Love, (2002). In some countries, firms may decline specific provisions causing investor protection laws to be nonbinding. ADR issuing firms may improve the rights of investors through implementing addition provisions to facilitate increased disclosure, institute more efficient and effective boards, and enact disciplinary action to ensure the rights of minority shareholders.

On the other hand, various studies (Klapper and Love, 2002) find a positive correlation between corporate governance structures and country level measures of investor protection. In addition, they suggest that it is crucial for firms located in countries with weak legal systems to adopt improved corporate governance practices. Since firms located in developing countries may have weaker rules, Black (2001)

suggests that the corporate governance structures may have larger effects. Corporate governance is related to firms and firms from these emerging market countries set standards in the economies of these nations.

In the case of TBGs, government funding and corporate control of families draw minority investors to invest in these holding companies (Khanna and Yafeh, 2005). The previous studies also point out that the internal capital markets created by business groups enable risk-sharing and intra-group financial support, in order to eliminate the problems caused by external capital constraints. In addition, these studies find that group affiliation in emerging markets is associated with better performance (Khanna and Palepu, 2000).

While the issues related to business groups and/or family-owned businesses remain a substance of academic debate, investors continue to invest in these businesses. This is especially the case in the case of TBGs, where investors put high value on their manufacturing operations, even though state controls the largest manufacturing firms (Bugra, 1994; Boratav, Türel and Yeldan, 1996; Öniş, 1996). Hence, the impact of family-group affiliation on TBGs' competitive advantage in innovation and sustainability may be a result of the benefits of concentrated ownership structure and variety of entrepreneurial skills and cultural ties in a family.

MNCs literature that concentrates on governance suggests that MNCs have intensified their overseas operations. In addition, their role in the global economy has become more prominent during the last decade (Gubbi, Aulakh, Sougata, Sarkar, & Chittoor, 2010). The previous literature examines governance both at the home country and firm level. Firm level analysis illustrates the negative aspects of internationalization

processes of these firms. It is indicated that while in advanced economies institutions and market dynamics work efficiently. Yet in emerging market countries, markets as well as institutions suffer from information asymmetry due to institutional voids (Khanna & Palepu, 1997). In this way, agency problems arise within the firms since managers desire to follow their own interests and to create costs to shareholders (Agrawal and Knoeber, 1996). Hence, understanding the emerging market multinationals require understanding the economic and institutional landscape in their home countries.

In emerging market economies there are various number of market and institutional failures. Some of these imperfections are presence of state governance mechanisms, insufficient transparency regulations, lack of intermediary institutions, and financial transparency (Khanna & Palepu, 1997; Leff, 1978; Yiu, Bruton, & Lu, 2005). Organizations, therefore, form conglomerates and business groups to diversify their risk and create balance in their portfolio (Yiu, Bruton, & Lu, 2005; Khanna & Palepu, 1997; Leff, 1978).

Corporate governance mechanisms as well as ownership structure, dividend payout, cost of external finance and market valuations have been significantly impacted due to variations in home country legal structure and the laws designed to protect investors, according to a growing body of literature valuations (La Porta, Lopez-de-Silanes, & Vishny, 1999; Klapper, and Love, 2002).

#### *III.iv Sustainability, Innovation and Networks*

TGBs through their innovative capabilities and network structures are able to create sustainable operations in European markets. Their network structure stems from their firm structures – namely being business groups. Mahmood, Zhu & Zajac propose



business groups have different abilities due to variety of member characteristics of business group associate firms (Mahmood, Zhu, & Zajac, 2011). According to the scholars, differently formed business groups have been engaged with different business activities. Therefore, they can sustain their activities in different industries and business fields (Mahmood, Zhu, & Zajac, 2011). However, the business groups' literature stem fail to provide what kind of business practices would create positivity. Henceforth, understanding and exploring linkage between different capabilities among business groups and how they may provide competitive innovation capabilities through digitalization for their members is crucial.

In Turkish business group structures, the parent companies have strong linkages and network relations with their subsidiaries and their main diversified firms. Network linkages can also be considered from a corporate governance perspective. Most corporate governance structures of Turkish business groups can be described as insider systems, much like the Japanese and the German systems where the firm, the bank and the state have a triangular relationship; hence the firm is financially supported by the state and the bank – within a network system, when necessary.

Networks in TBGs can also be related to family ownership, as these firms create numerous strategies to keep a strong family control in management. Most high-level positions and senior roles are usually resided by family members. The family members can also undertake a multiple managerial roles in the group (Bugra, 1994).

In relation to both network structures and innovation capabilities, it is important note that TBGs value 'professionalization of the family' through higher education of their young generations in business studies, and engineering, in prestigious universities abroad

or at home (Bugra, 1994). Education received by the young members adds more innovation and value to the international operations of the business groups.

In relation to both network structures and innovation capabilities, it is important note that TBGs value ‘professionalization of the family’ through higher education of their young generations in business studies, and engineering, in prestigious universities abroad or at home (Bugra, 1994). Education received by the young members adds more innovation and value to the international operations of the business groups, and therefore achieves sustainability.

For TBGs, sustainability can be defined as forming finite and renewable resources in such a way to meet the needs of today’s society without jeopardizing future generations’ ability to produce.

#### **IV. Chapter: Proposition Development**

The attempt of this study to analyze previous literature of International Business in order to understand internationalization processes of TBGs brings about recognition of multidimensional factors that relate with each other and internationalization processes of TBGs. These multidimensional factors can be stated as; (1) Innovation, (2) Corporate Social Responsibility, and (3) Sustainability. Therefore, building of the hypotheses includes each multidimensional factor individually and collectively.

The following hypotheses are developed by deriving from the previous literature and theories as well as using and inductive method in observing the internationalization processes of TBGs:

***Proposition 1:*** Innovation is integrated into the internationalization process of TBGs.

***Proposition 2:*** Corporate Social Responsibility is integrated into the internationalization process of TBGs.

***Proposition 3:*** Sustainability is integrated into the internationalization process of TBGs.

Based on the above-mentioned previous literature Market Imperfections & Firm Specific Advantages are parts of firms' internationalization strategies. Therefore it is crucial to integrate them in the study in order to develop robust and related propositions. When market imperfections are considered Hymer is the first International Business scholar that connects firms' internationalization strategies with their decision-making and operational processes. And since TBGs may capitalize market opportunities in the EU, Hymer's theory would provide basis for comprehensive understanding of the internationalization processes of TBGs.

Hymer states "Unequal ability of firms is a sufficient condition for foreign operations" (Hymer S. H., 1976, p. 46) since "...market impurity which leads the possessor of the advantage to choose to supersede the market" (Hymer, 1976, p. 49). These notions lead contemporary scholars to come up with three important questions that shape the present-day IB theories: (1) what are the market impurities? (2) How do market imperfections provide advantage to firms and opportunity to exploit oversea markets? (3) How do firms differ and compete with each other by employing these imperfections?

In the same century, Vernon "product life cycle" theory was seen as a better alternative to classics (Morgan & Katsikeas, 1997). In his work, he puts "less emphasis on comparative cost doctrine and more upon the timing of innovation" to create broader understanding for trade theory (Vernon, 1966, p. 190). Theory based on the premises that

a product goes through stages and at the final stage it reaches maturity to go overseas. It relied on the timing of the production and the innovation.

As stated above, the Eclectic Theory (OLI paradigm) suggests there are three sets of elements that determine a firm's ability to exploit market opportunities overseas (Dunning, 1981). These elements are ownership advantage, internationalization advantage, and location advantages (Dunning, 1981). Each advantage has different features and implications. Dunning provides a list of three factors, mainly ownership advantage, location advantage, internalization advantage. He also suggests that there are some implications of these advantages by integrating macroeconomic (location), microeconomic (ownership and internalization) theories, a good amount of scholarly work also helps shaping the framework over the years to become what is widely accept as "the" international business theory (Dunning, 1981; Eden & Dai, 2010).

Ownership (O) advantages are the specific and unique features that a firm has without relating itself with a certain location or industry (Dunning, 1981). These factors are mostly intangible assets. Position of assets them provides a *competitive advantage* to a multinational company, and an opportunity to exploit oversea markets via FDI (Dunning, 1979).

Location advantages (L) are directly associated with the factor endowments in a country and market failures due to structural imperfections (trade barriers and government policies) or presence of high transaction cost (absence of intermediate institutions and information asymmetry) (Dunning, 2001; Buckley & Casson, 1976; Buckley & Hashai, 2009). Unlike the firm specific advantages, these are *location bound* and not readily available to transfer internationally. These are the *country and market*

*specific attributes*. Therefore, having a certain sets of skills to reduce their affect on conducting business can create a competitive advantage for a firm in a certain market (Dunning J. H., 2001). For instance, having access to a *financial resource* in *home country* may enable a multinational company to go abroad and exploit a market, where the capital maybe scarce and not freely available to all market players (Dunning, 1988; Khanna & Palepu, 2010)

On the other hand, internalization (I) advantage stems from a firm's ability to conduct business more efficiently than relying on external players or market dynamics (Buckley & Hashai, 2009; Dunning, 1988). According to the Dunning, in contrast to what classics suggests, markets do not have the perfect information, eliminated market entry barriers, and frictionless transactions (Dunning, 1981; Hymer, 1976).

The second implication of size is resilience against of disruptive innovations or unexpected technologic changes (Buckley, 1989; Christensen, 1997). According to the Christensen, multinational enterprises can innovate in such a manner that they can cause an existing value chain shift from one market to another (Christensen, 1997). Since some of the small size firms mostly rely on one product or one industrial technology, any kind of technologic shift can be detrimental for small size firms. On the contrary, it may or may not affect the large size multinationals since they are well diversified.

The third implication of the size in decision-making is on the pull and push factors. According to Buckley even though large and small firms demonstrate similarities on several internationalization motives, there are some different reasons why small size firms go overseas. For instance, both of these multinationals may pursue ownership advantage over an input factor. However, only well diversified multinational firms may

pursue this goal due to its well diverse operations and financial means (Buckley, 1989). In line with this theory, TBGs are diverse and they operate in well-diverse markets.

Buckley and Casson postulate in their study that “(1) firms internalize missing or imperfect external markets until the costs of further internationalization outweighs the benefits; and (2) firms choose locations for their constituent activities that minimize the overall cost of their operations” (Buckley & Casson, 1976). Therefore, they conclude that the motivation to go abroad arises from the profit opportunity via aiding imperfect markets through FDI (Buckley, Clegg, Cross, Liu, Voss, & Zheng, 2007).

Dunning unites these ideas to establish the Eclectic Theory (OLI framework) (Dunning, 2001; Dunning, 1988). He recognizes the different types of market imperfections and their implications (Dunning, 1981), and conceptualizes them to explain, “what determines the amount and composition of international production?” (Eden & Dai, 2010, p. 14).

In the case of TBGs creating competitive advantage through innovation and environmental sustainability greatly supports their internationalization processes. This is previously stated by previous literature among the studies of various EBGs. For example, numerous studies focus on the characteristic of business’ environment pressure and its influence on firms’ innovativeness. These studies show that different internalization phases or methods of a firm can be supported through digitalization and innovation (Cassiman & Golovko, 2011; Venaik, Midgley, & Devinney, 2005).

The innovative activities of TBGs are encouraged by the Turkish government; this has also been the case historically. They are able to enter into designated sectors through

the support of network mechanisms and through instruments like protection from foreign competition, and Government-subsidized bank credits (Bugra, 1994).

In addition, the innovative activities of TGBs are also stimulated by diversification procedures. Diversification, mostly unrelated, has been enabled by ‘technology acquisition’ and ‘project- execution’ capability that they have developed in the process of digitalization over the years (Amsden and Hikino, 1994).

Hence, attaining capability is a crucial factor in a specific economy, as firms compete with each other as a result of conflicting demand and cost pressures in a host country (Venaik, Midgley, & Devinney, 2005). In order to overcome this conflict, firms can tap into international markets. As a result, they learn new capabilities specific to a firm (FSA) (Dunning, 1988) and leverage these abilities to innovate in home country or innovate across the globe (Gupta & Govindarajan, 1991). Addressing the reason/s of a firm’s tendency to invest in certain markets rather than others is an important component to understand how business groups innovate.

As stated previously in the literature review related to corporate structure, in the process of innovating, firms may face corporate governance specific problems (Luo, Chung, & Sobczak, 2009). The business group affiliated firms are tied to each other in terms of ownership, control, experience, and knowledge flow (Khana & Palepu, 2000; Guillen, 2003). However, the bond among companies may positively (Guillen, 2003; Khana & Palepu, 2000) or negatively (Kim, Kim, & Hoskisson, 2010) affect firms’ ability to adopt and react market changes. Not being able to embrace the changes can cause stagnation in innovation efforts. Therefore, investigating network relations and

linkages between business groups and their innovative capabilities is crucial subject to understand business groups.

***Proposition 1:*** Innovation is integrated into the internationalization process of TBGs.

Different attributes of the locations such as psychic (culture, language, commercial, etc.) and physical (distance from home country) characteristic of a host country can give a rise to inefficiencies at production or transferring process at MNCs' cross-border operations. Hence, passing the rights of conducting business overseas under any kind of entry mode (e.g. joint venture, export, or licensing) would only increase value lost (Agarwal & Ramaswami, 1992). This may not necessarily apply to operations of TBGs. Therefore, to exploit the potential market opportunities; firms should leverage internalization capabilities to internalize market failures rather than externalizing their business dynamics (Dunning, 1988).

When a company makes the decision of expanding its activities across borders, it faces a choice to make, where will be the investment taking place? Even though question itself seems basic, the answer of it is very complex<sup>5</sup>. For instance, at the earlier years of IB developments scholars have tried to answer this question through similarities between countries and physical distance. Johanson & Vahlne (1977) come up with the idea that firms internationalize incrementally to avoid incurring cost that is due to faulty or misleading market knowledge. Scholars suggest that since choosing a similar market or

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<sup>5</sup> "Everything is related to everything else, but near things are more related than distant things" (Tobler, 1970, p. 236).



location will reduce the riskiness of a market and ease the learning process, firms will invest at locations that are in close distance (Johanson & Vahlne, 1977).

In addition, Corporate Governance/Corporate Social Responsibility is typically perceived by academic literature as dealing with problems that may result if there is no separation of ownership and control. From this perspective, corporate governance would focus on: The internal structure and rules of the board of directors; the creation of independent audit committees; rules for disclosure of information to shareholders and creditors; and, control of the management (Fernando, 2009, OECD, 1997). However, when Corporate Social Responsibility piece is considered it becomes apparent that not only transparency, but also accountability plays role in a firm's responsible operations in home and host countries. One of the important ways to understand Corporate Social Responsibility takes places while firms internationalize is their practices that relate to community and the environment.

MNCs literature that concentrates on governance suggests that MNCs have intensified their overseas operations. In addition, their role in the global economy has become more prominent during the last decade (Gubbi, Aulakh, Sougata, Sarkar, & Chittoor, 2010). The previous literature examines governance both at the home country and firm level. Firm level analysis illustrates the negative aspects of internationalization processes of these firms. It is indicated that while in advanced economies institutions and market dynamics work efficiently. Yet in emerging market countries, markets as well as institutions suffer from information asymmetry due to institutional voids (Khanna & Palepu, 1997). In this way, agency problems arise within the firms since managers desire to follow their own interests and to create costs to shareholders (Agrawal and Knoeber,

1996). Hence, understanding the emerging market multinationals require understanding the economic and institutional landscape in their home countries.

In emerging market economies there are various number of market and institutional failures. Some of these imperfections are presence of state governance mechanisms, insufficient transparency regulations, lack of intermediary institutions, and financial transparency (Khanna & Palepu, 1997; Leff, 1978; Yiu, Bruton, & Lu, 2005). Organizations, therefore, form conglomerates and business groups to diversify their risk and create balance in their portfolio (Yiu, Bruton, & Lu, 2005; Khanna & Palepu, 1997; Leff, 1978).

Corporate governance mechanisms as well as ownership structure, dividend payout, cost of external finance and market valuations have been significantly impacted due to variations in home country legal structure and the laws designed to protect investors, according to a growing body of literature valuations (La Porta, Lopez-de-Silanes, & Vishny, 1999; Klapper, and Love, 2002). In some countries, firms may decline specific provisions causing investor protection laws to be nonbinding. ADR issuing firms may improve the rights of investors through implementing addition provisions to facilitate increased disclosure, institute more efficient and effective boards, and enact disciplinary action to ensure the rights of minority shareholders.

On the other hand, various studies (Klapper and Love, 2002) find a positive correlation between corporate governance structures and country level measures of investor protection. In addition, they suggest that it is crucial for firms located in countries with weak legal systems to adopt improved corporate governance practices. Since firms located in developing countries may have weaker rules, Black (2001)

suggests that the corporate governance structures may have larger effects. Corporate governance is related to firms and firms from these emerging market countries set standards in the economies of these nations.

In the case of TBGs, government funding and corporate control of families draw minority investors to invest in these holding companies (Khanna and Yafeh, 2005). The previous studies also point out that the internal capital markets created by business groups enable risk-sharing and intra-group financial support, in order to eliminate the problems caused by external capital constraints. In addition, these studies find that group affiliation in emerging markets is associated with better performance (Khanna and Palepu, 2000).

While the issues related to business groups and/or family-owned businesses remain a substance of academic debate, investors continue to invest in these businesses. This is especially the case in the case of TBGs, where investors put high value on their manufacturing operations, even though state controls the largest manufacturing firms (Bugra, 1994; Boratav, Türel and Yeldan, 1996; Öniş, 1996). Hence, the impact of family-group affiliation on TBGs' competitive advantage in innovation and sustainability may be a result of the benefits of concentrated ownership structure and variety of entrepreneurial skills and cultural ties in a family.

Although the evidence of separation of ownership and control may not be apparent or visible in the operations of TBGs, their business structures illustrate high levels of Corporate Social Responsibility. Overall their operations are examples of transparency and accountability. They display responsible operations in both home and host countries. One of the important ways to understand Corporate Social Responsibility takes places

while firms internationalize is their practice that relate to community and the environment.

***Proposition 2:*** Corporate Social Responsibility is integrated into the internationalization process of TBGs.

Mahmood, Zhu & Zajac propose business groups have different abilities due to variety of member characteristics of business group associate firms (Mahmood, Zhu, & Zajac, 2011). According to the scholars, differently formed business groups have been engaged with different business activities. Therefore, they can sustain their activities in different industries and business fields (Mahmood, Zhu, & Zajac, 2011). However, the business groups' literature stem fail to provide what kind of business practices would create positivity. Henceforth, understanding and exploring linkage between different capabilities among business groups and how they may provide competitive innovation capabilities through digitalization for their members is crucial.

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Networks in TBGs can also be related to family ownership, as these firms create numerous strategies to keep a strong family control in management. Most high-level

positions and senior roles are usually reside by family members. The family members can also undertake a multiple managerial roles in the group (Bugra, 1994).

In relation to both network structures and innovation capabilities, it is important note that TBGs value ‘professionalization of the family’ through higher education of their young generations in business studies, and engineering, in prestigious universities abroad or at home (Bugra, 1994). Education received by the young members adds more innovation and value to the international operations of the business groups, and therefore achieves sustainability.

For TBGs, sustainability can be defined as configuring finite and renewable resources in such a way to serve the needs of today’s society without endangering future generations’ ability to produce for themselves.

***Proposition 3:*** Sustainability is integrated into the internationalization process of TBGs.

The above propositions are tested by employing two different methodologies. These are namely; descriptive and case study methodologies.

## **V. Data & Methodology**

### *V.i Data*

The initial dataset that is put together had 15 parent companies and 200 subsidiaries. However, due to geographic scope of this seminal work, closed subsidiaries, and sold parent companies, this number went down drastically. The current size of the dataset is to examine research questions is 13 manufacturing parent companies

- holding firms, mostly made up of family-controlled business groups consisting of 72 of subsidiaries that conduct cross –border manufacturing in the region of Europe<sup>6</sup>. Data on business groups were obtained from “MarketLine Advantage”, “OneSource”, “Thompson Reuters DataStream”, “LexisNexis”, and companies’ annual reports. The sample includes some firms listed as ADRs such as Haci Omer Sabanci Holding A.S, Koc Holding, and Zorlu Holding, and those parent companies have at least one subsidiary firm (Arçelik A.S, Teknosa Ic ve Dis Ticaret, Vestel Beyaz Esgya Sanayi ve Ticaret A.S etc.), quoted on the Borsa Istanbul (BI).

**Table 1:** List of Parent Holding Companies

<b><u>Company Name</u></b>	<b><u>Industry</u></b>	<b><u>Innovation</u></b>	<b><u>Sustainability</u></b>	<b><u>Corporate Social Responsibility</u></b>
Koc Holding AS	Holding Companies	Innovative efficient production to create lasting value through sustainability perspective.	"Koç Holding and Group companies aim to turn risks into opportunities by solving environmental problems with creative and innovative solutions through the practices they pursue with a perspective that brings the priorities of sustainability to the forefron". Reforestation projects and Tema collobration	Art Performances: Istanbul Biennia (Contemporary art forum that underlines social problems), For My Country (Alternative Life Association and the UN development Program that underlines disability problems). UNGC. Vehbi Koc Highschool, Vocational Education (companies match with the students to provide technical education.8,000 vocational high school students match with 350 employees)
Haci Omer Sabanci Holding A.S.	Holding Companies	Achieving innovation-oriented growth via design and production of high technology goods.	Carbon Disclosure Project	UN Global Compact (UNGC), UN Women's Empowerment Principles (WEP), Equality at Work Declaration, Sabanci Museum, Food Bank. Children as heroes (Increasing financial education of kids), Technology for Women, Sabanci University,

<sup>6</sup> Based on Thompson Reuters and OneSource databases, company’s annual reports, and best to our knowledge.

				Sabancı Scholarship program, Nigde Summer Camp (children development)
Zorlu Holding AS	Holding Companies	"Following technological advances and putting innovations into practice rapidly are of vital importance for maintaining our powerful position in the world's market".	"We manage our economic, social, environmental, and ethical codes with our identity of corporate sustainability. We are aware that resources are not infinite; therefore, we work in observance of the rules of ethics in order to heighten the quality of human lives and to preserve the equilibrium between nature and resources. " UN Global Impact Member	UNGC and UN Women's Empowerment Principles Scholarships, 8 schools, How would you design it? (Competition: Supporting the new generations in textile design)
Enka Insaat ve Sanayi A.S.	Civil Engineering and Holding Companies	Every engineering-related detail in completed and ongoing projects is constantly questioned and re-examined and innovative engineering solutions are being continually researched and developed for better and more efficient results.	Projects on Carbon and Water Footprint Reduction and Energy Efficiency. UN Global Impact Member.	Enka Foundation, Enka Sports Club, Enka Schools, Employee Education, Workplace Health and Safety, Aiming to Contribute Local Communities.
Anadolu Efes Biracilik ve Malt Sanayi AS	Beverage Manufacturing and Holding Companies	Creation of new ways to produce beverages with less wastewater.	Green Packaging, Efficient Raw Material Usage, Reliable Neighbor Project	Efes Blues Festiva, consumer group enrichment projects, fair business environment, "...communities in which we live and work and support their advancement."
TAV Havalimanlari Holding A.S.	Air Transportation Services and Holding Companies	Creation of the TAV Mobile App. ACI Eco-Innovation Award (2010). Airport Service Quality (ASQ), 2015: "The Airport That Improved Its Service Quality At The Highest Level in Europe"	Carbon Disclosure Project	Young Guru Academy, TAV Cup, Sustainable Brand Conference, Culture Ants Project (kultur karincalari projesi)

Adil Bey Holding A.S.	Holding Companies	-	Carbon emission reduction project, reforestation, environmental audit unit	Aydin Dogan Foundation, Aydin Dogan International Cartoon Competition, No! To Domestic Violence, Young Communicators Project, Donation of school and dorm buildings, Education Reform Initiative (ERIG), Dad, send me to school project
Cukurova Holding A.S.	Holding Companies	"To achieve these targets, Çukurova Group undertakes all its endeavors based on a philosophy rooted in development and innovation".	UNGC (United Nations Global Compact), Agriculture Information Package	Young Developers Project (Giving opportunity to local talents), Women's Empowerment Procedures (UN), Smart Women's Club, Young Communicators Project, Donation of school and dorm buildings, Education Reform Initiative (ERIG), Dad, send me to school project
Yazicilar Holding AS	Holding Companies	"Developing reliable and environmental technologies to fulfill its social responsibilities".	-	-
Sahinler Holding A.S.	Holding Companies	-	-	-
Tekfen Holding A.S.	Holding Companies	Smart Agriculture Solutions. Developing farmer friendly innovations	Junior TEMA Project Sponsor	Tekfen Philharmonic Orchestra, Sponsorship to Istanbul Theater Festival, Ziyaret Tepe Excavation, Ephesus Excevation,MEB Toros Tarim Necati Akcagililar Primary School, Scholarships, Support for the Van Earthquake Survivors
Borusan Holding	Holding Companies	"We are enthusiastic, participative and cooperative. We meet the necessary requirements of today's world and support innovative ideas and initiatives."	"One coil, one plant" project. Borusan plants one plant for every produced coil in its production facility.	"Happy Hands", "I have a daughter in Anatolia", "Losev Chapter", "Borusan Kocabiyik Foundation", Ephesus Foundation."
Celebi Holding A.S.	Holding Companies	-	Reforastation of Dalaman Project	50 years, 50 Celebi Home (Donating houses to teachers who are teaching at East Part of Turkey). Change one thing, Change everything Project



				(Donating school supplies)
Eczacibasi Holding A.S.	Holding Companies	Developing innovative ways to develop new medical solutions	UNGC, “ Eczacıbaşı Group embraces a holistic approach to sustainability that aims to achieve a balance between the needs of the business world and society – both in the present and future – and the sustainability of natural resources.”	“Every investment in the arts and culture directly contributes to the development of society's wealth, to the economy and politics and to the whole fiber of society.”  Istanbul Foundation for Arts, Vitra Ceramic Arts Studio, Eczacibasi Vitra Women Volleyball Team.

Qualitative data is collected from three main resources. These resources are “OneSource”, “DataStream”, and companies’ annual reports. Qualitative data is gathered from mainly three resources “MarketLine Advantage”, “Bloomberg, and companies’ quarterly reports. In order to classify the qualitative data, certain key words are used for each explanatory variable. The following table demonstrates the key words that are used for the specific variable.

**Table 2:** Variables and Key Words for data collection (key words are generated based on previous literature reports such as, UNEP Reports, WWF’s discussion papers, Earnest and Young Sustainability Report, Boston College Center for Corporate Citizenship Reports).

Variables	Key Words
Innovation	Innovation, innovative, creation of new, inventing, inventing high technology, design, designing high technology, state of art final good, pioneer, first in the field, patent, resource innovation,
Corporate Social Responsibility	Corporate Social Responsibility, CSR, art, foundation, transparency, UN Global Compact,

	equality, openness, workplace safety, children, woman, sports, empowerment, scholarship, museum, sponsorship, cinema, theater, stadium
Sustainability	Sustainability, reforestation, emission reduction, carbon, carbon disclosure, renewable, renewable energy, carbon emission, education, carbon footprint, water, water footprint, less energy, energy efficiency, pollution, land pollution, air pollution, industrial efficiency

*V.ii Methodology – I: Descriptive Study:*

The table below illustrates the innovative capabilities and projects based on the specific industries as well as corporate social initiatives of TBGs. In addition, the table shows the United Nations Global Compact memberships of TBGs. With the increasing importance of corporate citizenship, companies have invested in more to corporate social responsibility initiatives. One of the most prominent and integral international corporate social responsibility projects is United Nation Global Compact (UNGC) initiative. The following table demonstrates the participation of Turkish Holding Companies to the UNGC.

**Table -1 Panel A:** Turkish Holding Companies' Innovation, CSR and Global Compact Data, Sustainability Through 2017

<u>Company Name</u>	<u>Country</u>	<u>Sales</u>	<u>Sustainability</u>	<u>US SIC 1987</u>	<u>Innovation areas by Industry</u>	<u>Global Compact Members</u>
		(USD mil)				
Koc Holding AS	Turkey	31,393.30	Sustainable operations in all petroleum manufacturing. (Environmental Sustainability)	2911	Petroleum Product Manufacturing	Member
Zorlu Holding AS	Turkey	61,086.70	Sustainable technology production. (Sustainable production process)	6719	Technology production & Home appliances	Member
Enka Insaat ve Sanayi A.S.	Turkey	5,822.80	Sustainable engineering practices in construction work. (Environmental sustainability)	1623	Civil Engineering	Non-Member
Anadolu Efes Biracilik ve Malt Sanayi AS	Turkey	4,611.00	Sustainability in production. (Water and other natural resource sustainability)	2082	Beverage Manufacturing	Member
TAV Havalimanlari Holding A.S.	Turkey	1,045.00	Sustainable technology production. (Sustainable production process)	4581	Air Transportation Services	Member
Adil Bey Holding A.S.	Turkey	NA	Sustainable technology production. (Sustainable production process)	6719	High-tech Industry	Non-Member
Cukurova Holding A.S.	Turkey	NA	Sustainable agricultural production. (Environmental	6719	Sustainable Agriculture	Non-Member

			sustainability)			
Yazicilar Holding AS	Turkey	910.3	Sustainable engine production. (Sustainable production process)	3711	Motor Vehicles and Passenger Car Bodies	Member
Sahinler Holding A.S.	Turkey	246.2	Sustainable clothing and apparel manufacturing. (Sustainable employee and resource management)	2335	Clothing and Apparel Manufacturing	Member
Tekfen Holding A.S.	Turkey	2047.1	Sustainable construction production. (Environmental and other resource sustainability)	1541	Residential and Commercial Building Construction	Non-Member
Celebi Holding A.S.	Turkey	NA	Sustainable construction production. (Environmental and other resource sustainability)	6719	Smart Construction	Non-Member
Calik Holding AS	Turkey	2772.9	Sustainable construction production. (Environmental and other resource sustainability)	6719	Smart Construction	Non-Member
Borusan Holding	Turkey	4,380.70	Sustainable technology production. (Sustainable production process)	3317	Steel Pipes and Tubes	Member
Alarko Holding A.S.	Turkey	441	Sustainable construction production. (Environmental	781	Architecture and Engineering	Non-Member

			and other resource sustainability)			
Eczacıbasi Holding A.S.	Turkey	1471.7	Sustainable pharmaceutical production. (Environmental sustainability)	1987	Pharmaceutical Manufacturing	Member

**Notes:** This table presents Turkish Holding Companies' Global Compact data through 2017. Global Compact Member firm number is 7.

This table above demonstrates the three main factors innovation, corporate social responsibility, and sustainability is used by TBGs in their international operations.

The tables presented below further explain the multitude of their size by exploring their assets in volume and number of employees.

The table below illustrates the list of TBGs – describing them by their volume of sales. As it can be seen from the table, these holding companies are considerably large in size and prominent.

**Table -1 Panel B:** Turkish Holding Companies ' Sales Data in USD Millions Through 2017

<u>Company Name</u>	<u>Country</u>	<u>Sales</u>	<u>US SIC</u> <u>1987</u>	<u>Industry</u>
		<u>(USD mil)</u>		
Koc Holding AS	Turkey	31,393.30	2911	Petroleum Product Manufacturing
Zorlu Holding AS	Turkey	61,086.70	6719	Holding Companies
Enka Insaat ve Sanayi A.S.	Turkey	5,822.80	1623	Civil Engineering
Anadolu Efes Biracılık ve Malt Sanayi AS	Turkey	4,611.00	2082	Beverage Manufacturing
TAV Havalimanlari Holding A.S.	Turkey	1,045.00	4581	Air Transportation Services

Adil Bey Holding A.S.	Turkey	NA	6719	Holding Companies
Cukurova Holding A.S.	Turkey	NA	6719	Holding Companies
Yazicilar Holding AS	Turkey	910.3	3711	Motor Vehicles and Passenger Car Bodies
Sahinler Holding A.S.	Turkey	246.2	2335	Clothing and Apparel Manufacturing
Tekfen Holding A.S.	Turkey	2047.1	1541	Residential and Commercial Building Construction
Celebi Holding A.S.	Turkey	NA	6719	Holding Companies
Calik Holding AS	Turkey	2772.9	6719	Holding Companies
Borusan Holding	Turkey	4,380.7	3317	Steel Pipes and Tubes
Alarko Holding A.S.	Turkey	441	781	Architecture and Engineering
Eczacibasi Holding A.S.	Turkey	1471.7	1987	Pharmaceutical Manufacturing

**Notes:** This table presents 15 Turkish Holding Companies' sales data in USD million through 2017. Average 9,685.73; median 2,410.00; standard deviation 18295.41197; max 61,086.70; min 246.00

The table below illustrates the list of TBGs – describing them by their number of employees. As it can be seen from the table, these holding companies are not only considerably large in size in terms of volume of sales, but also in human capital.

**Table -1 Panel C:** Turkish Holding Companies 'Employee Data Through 2017

<u>Company Name</u>	<u>Country</u>	<u>Employees</u>	<u>US SIC 1987</u>	<u>Industry</u>
Koc Holding AS	Turkey	92,215	2911	Petroleum Product Manufacturing
Zorlu Holding AS	Turkey	800	6719	Holding Companies
Enka Insaat ve Sanayi A.S.	Turkey	21,207	1623	Civil Engineering
Anadolu Efes Biracilik ve Malt Sanayi AS	Turkey	18,034	2082	Beverage Manufacturing

TAV Havalimanlari Holding A.S.	Turkey	23,698	4581	Air Transportation Services
Adil Bey Holding A.S.	Turkey	NA	6719	Holding Companies
Cukurova Holding A.S.	Turkey	NA	6719	Holding Companies
Yazicilar Holding AS	Turkey	6,828.00	3711	Motor Vehicles and Passenger Car Bodies
Sahinler Holding A.S.	Turkey	12000	2335	Clothing and Apparel Manufacturing
Tekfen Holding A.S.	Turkey	11947	1541	Residential and Commercial Building Construction
Celebi Holding A.S.	Turkey	11000	6719	Holding Companies
Calik Holding AS	Turkey	12335	6719	Holding Companies
Borusan Holding	Turkey	7,500	3317	Steel Pipes and Tubes
Alarko Holding A.S.	Turkey	4745	781	Architecture and Engineering
Eczacibasi Holding A.S.	Turkey	10950	1987	Pharmaceutical Manufacturing

**Notes:** This table presents Turkish Holding Companies' sales data in USD million through 2017. Average 17,943.00; standard deviation 18295.41197; max 61,086.70; min 246.00.

### *V.iii Methodology - II: Case Study Method:*

The third methodology is employed to answer following research questions; 2) Do TBGs integrate innovation, Corporate Social Responsibility (CSR), and sustainability to their internationalization processes? 3) How are innovation, CSR, and sustainability interrelated? 4) In what ways TBGs integrate innovation, CSR, and sustainability in to their internationalization processes? 5) What are the innovative activities TBGs utilize while internationalizing? 6) What are the corporate social responsibility activities TBGs utilize while internationalizing? 7) What are the environmentally sustainable activities TBGs utilize while internationalization? 8) Whether the theories of International Business

(IB) can explain the internationalization processes of TBGs? Hence, this part includes *Explanatory Case Studies*.

Explanatory case study generally answers “how” or “why” and the focuses on phenomena in some real life context. Hence, the researcher has little or no control over events (Yin, R.K, 2003) Case Study Research: Design and Methods (Third Edition)). Explanatory methodology is used to formulate propositions and offer propositions. The units of analyses are either individuals, events or phenomena. These studies enable the researcher to logically link data to propositions. In this dissertation, criteria for interpreting the studies’ findings are based on patterns.

In alliance with this school of thought the dissertation provides a multiple case design with a highly structured case format. The highly structured case studies are as follows: 1) Vestel; 2) Arçelik; 3) Sabanci; and 4) Borusan. The companies that are chosen for the case studies are based on standards that include relevant data that can easily to be linked to theories and serve as an analytic framework.

The relationships of *explanatory variables*, namely *innovation*, *corporate social responsibility*, and *sustainability* with TBGs’ *internationalization* processes are explored further by integrating two *Explanatory Case Studies*.

### **Case study methodology;**

There are two case studies in this part. The reason why case studies are adopted to the study is to further support the thesis statement, thesis questions, and the propositions, as well as the two preliminary methods. Since this case study method is



*Explanatory*, the three explanatory variables of **innovation**, **corporate social responsibility**, and **sustainability** are integrated in both of the following case studies.

#### **V.iii.i Case 1: Arçelik**

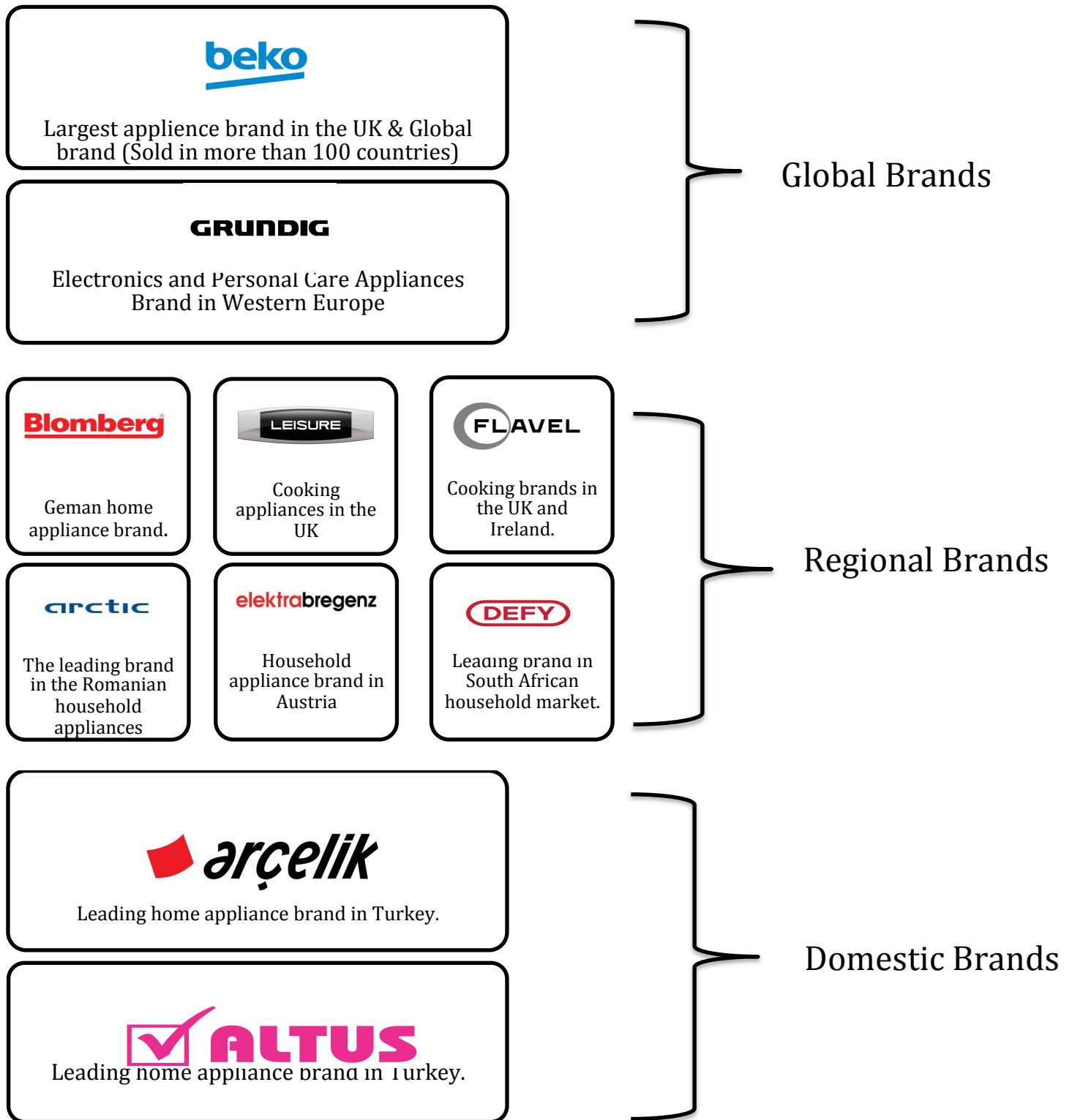
This first case is entitled Arçelik. It explores how Arçelik integrates these three variables, namely innovation, corporate social responsibility, and sustainability to its internationalization processes.

##### **Background Information**

Arçelik Anonim Sirketi is a Turkish household appliances manufacturing firm, which, with its subsidiaries and business network designs, manufactures, and services consumer durable goods. Specifically, the company offers built-in products to meet consumer needs in modern living styles; such as, energy efficient refrigerators, space friendly compact and fast washing and drying machines, and large capacity microwaves.

The company offers its products under the Arçelik, Beko, Blomberg, Arctic, Grundig, Altus, Flavel, ElektraBregenz, Leisure, Defy, and Dawlance brand names. Even though there are some overlaps, all of them serve in different locations and industries. The following chart demonstrates the most prominent brands of Arcelik's companies:

Chart 1: Arcelik brand portfolio



Arçelik has 30,000 employees, 18 different production facilities in 7 countries, 34 sales and marketing companies in 32 countries, and 11 brands (Arcelik A.S., 2018). The following map demonstrates the geographical dispersion of the production plants, international sales and marketing offices, and head quarters.



## Arçelik and Social Responsibility

philosophy that respects societies' values, cultures, and moral principles as well as usage of limited resources while conducting business. Regardless of where Arçelik operates, it keeps its promise on showing awareness of environmental and social needs. As one of the first signer of European Committee of Domestic Equipment Manufacturers (CECED)<sup>7</sup>, Arçelik voluntarily accepts to full compliance to humane working conditions, environmental laws, sustainable production, and standards.

With the motto of “Respects the Globe, Respected Globally”, the corporation has centered its businesses on accountability, responsibility, openness, transparency, and equality. Over the years, these principles evolved as the moral pillar of the company, and become the foundation of CSR projects. As a result, trust amongst stakeholders, institutions, and Arcelik strengthened, which lead to amplification of company's productivity and success.

In 2011 the quarterly company report, Arçelik openly states, “Corporate social responsibility is essential to the company's core business and works for *sustainable growth*.” With this understanding, Arçelik implements an innovative program, which has never been implemented by another company at an overseas supply chain, “Supplier Business Transparency” (BTP) training program.

The program, which was conceptualized and launched respectively at 2015 and 2016, provides training, coaching, development in sustainability reporting, certification across social, environmental, human rights, and ethical issues to Arcelik's suppliers. By empowering and equipping its suppliers with the expertise to be more sustainable, Arçelik has not only seen social benefits for the company and their suppliers, but also

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<sup>7</sup> CECED was founded in 1959. It represents European manufacturers of domestic home and electrical appliances. The organization regulates all industrial activities of its members and EU companies through pertaining to legal regulations and practices.

become more financially competitive in its main export markets in Europe and the United States. For instance, as a result of the implemented project in EU manufacturing and supply chain facilities, company is rated “AAA” score, which is the highest possible grade, by one of the World’s most esteemed rating systems, The Morgan Stanley Capital International (MSCI) Global Sustainability index after the program. In addition, with the actualization of the program, the company developed a new and innovative corporate structure.

Another perspective of the program is combining the “Purchasing” and “R&D” units’ working units to directly involve with supplier monitoring and their innovation teams. As a result, the information is started to flow by both ends of the value and supply chain, which lead organizations conduct business, innovate, and collaborate with more transparent and socially responsible approaches.

Arçelik also gets recognition from CIPS Supply Management Organization due to the implemented Business Transparency Project. The organization earned the CIPS Supply Management Organization Awards Europe, which is widely accepted as the respected benchmark of excellence within the procurement and supply chain professions, with the categories ranging from of corporate social responsibility, people development, to supplier relationships. This recognition further enables the Arcelik to be the first-ever Turkish manufacturing company to join the Dow Jones Sustainability Emerging Markets Index in October 2017 (PRN Asia, 2017). Arçelik’s CEO, Hakan Bulgurlu’s comments further demonstrates that how CSR initiatives are embedded into Arçelik’s internationalization strategy and how important they are as a strategic competitive advantage in EU.

“At Arçelik we’re proud to be an industry leader in embedding sustainability throughout our entire value chain. This commitment reinforces our position as a responsible business, encouraging our supply chain to stimulate innovation and enhance their competitive advantage. International investors pay delicate attention to sustainability cards of the companies. Companies which are truly committed to green technology, circular economy and resource efficiency will be the leaders of transformation in householeds. With that vision we are looking for more opportunities to invest, innovate, and co-operate (PR Newswire, 2017)”

As the case demonstrates Arcelik integrates Innovation, Corporate Social Responsibility, and Sustainability into its internationalization processes into Europe..

### **V.iii.ii Case 2: Zorlu Holding**

Does Zorlu Holding integrate innovation, corporate social responsibility, and sustainability to its internationalization processes?

#### **Background Information**

Zorlu Holding is a well-diverse Turkish Business Holding Company, which defines itself as a *multi-industry manufacturing group* with its 57 companies (Vestel, 2017). The main sectors that group member firms operate are textile, consumer

electronics, white goods, information technologies, energy, mining, defense and real estate. Zorlu Holding serves its customer base through designing and manufacturing state of the art high-tech goods and services. Specifically, the company offers products, such as smart home appliances, digital information displaying devices, digital signage solutions, energy saving lightning products, and built in refrigerators and washing machines in the European market. Furthermore, the group outshines its competitors in the entertainment industry through its Internet-based TV in Spain. In addition, it supplies the North Atlantic Treaty Organization (NATO)<sup>8</sup> with its Unmanned Aerial Vehicles (UAV).

Zorlu Holding is renowned for its high innovative capabilities, know-how, and sustainability initiatives. Some of the many pioneering and innovative initiatives that Zorlu Holding actualize are: 1) KORTEKS [largest European fully-integrated polyester continuous filament yarn manufacturer (Unifi, 2015)]; 2) Vestel City (with 1.1 million m<sup>2</sup> industrial complex that has capacity to manufacture 76,000 products per day, and it is the one of the largest industrial complexes in Europe on a single field); and 3) Vestel – the flagship brand of Zorlu Holding in the European market. Vestel is a group of firms that has 23 members, in which 16 of them conduct business outside of Turkey. Other than manufacturing facilities, the holding has eight R&D facilities around the world (Zorlu Holding, 2017). The most prominent facilities are located in Turkey, United Kingdom, China, and Taiwan (Ayden, Demirbag, & Tatoglu, 2017).

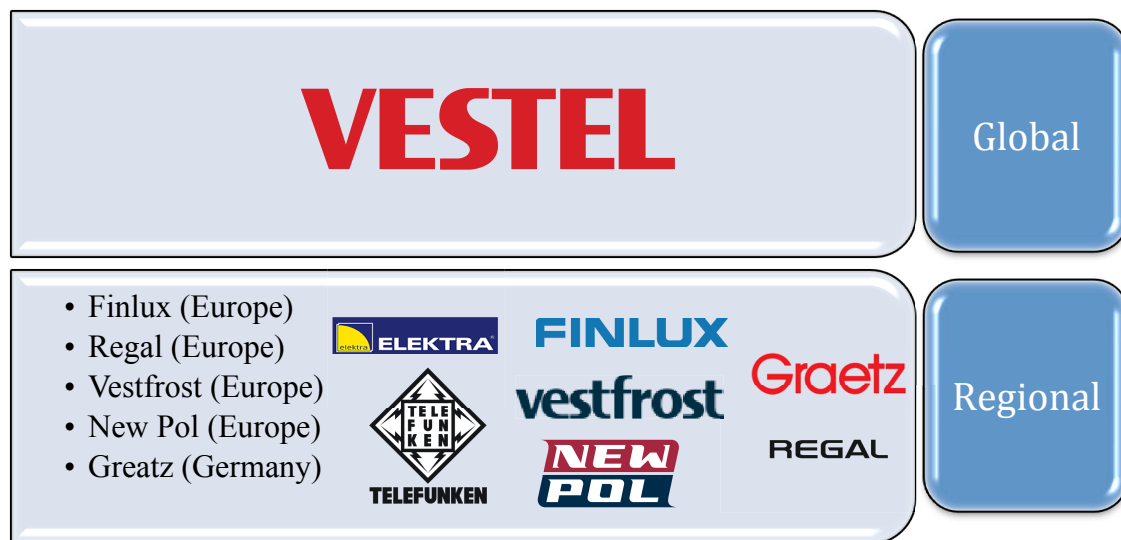
The company offers its products mainly under the Agora, Atlantic, Celcus, Digihome, Dikom, Electra Clayton, Finlux, Graetz, Harrow, Icecool, Laurus, Linetech, Luxor, Regal, Princeton, Schontech, Manhattan, Ormond, Sedea, Servis, New Pol

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<sup>8</sup> The North Atlantic Treaty Organization, also know as the North Atlantic Alliance, is an intergovernmental military alliance between the United States and European countries based on the North Atlantic Treaty that was signed on 4 April 1949 (<https://www.nato.int/>, February, 2018) .

Technical, Techwood, Telefunken, Tucson, Vestel, Vestfrost, Waltham, Wellington, Westwood, and Windsor brand names.

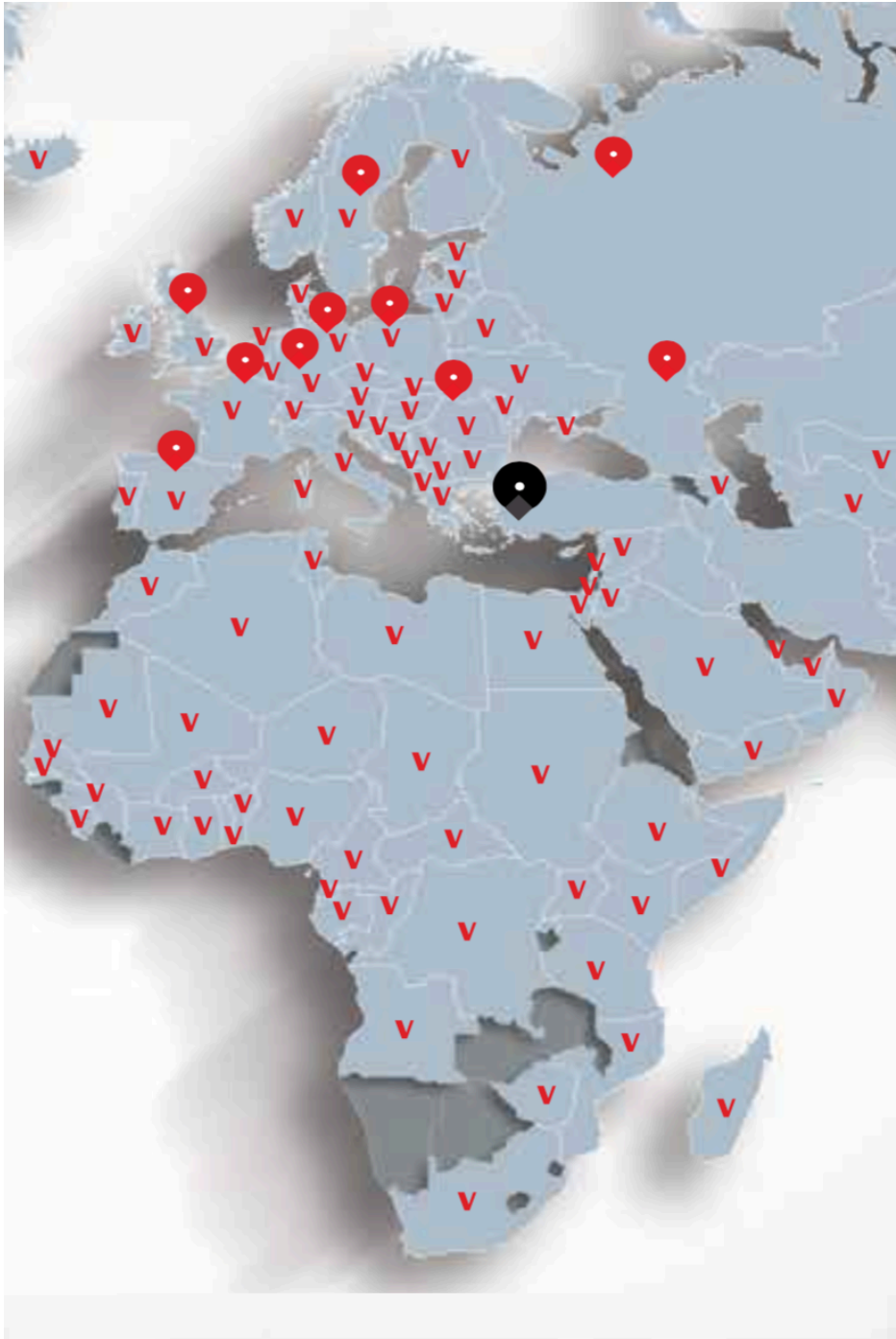
The following chart demonstrates the most prominent regional and global brands of Zorlu Holding:



**Chart 2:** Zorlu Holding's prominent subsidiaries and brands in Europe.

Zorlu Holding uses Vestel as a leading brand to conduct business in Europe. The following map demonstrates the geographical dispersion of the Vestel and its subsidiaries all around the Europe





**Map 2:** Vestel's Manufacturing and Subsidiary Presence in Europe (Source: Vestel, 2017)

## **Zorlu Holding and Sustainability**

Production patterns of companies shape resource reserves where they operate. Most companies in today's global world affect social, environmental, and cultural aspects of the society they operate in and beyond. Depending on their strategies and their ways of conducting businesses, the outcomes of the effects can either be positive or negative. Positive outcomes may be managing tangible and intangible resources in such ways that companies can meet the needs of today's societies without putting future generations' ability to produce for themselves in jeopardy. The opposite outcome may be exemplified as a firm's negligent production strategy, which depletes resources through excessive usage of reserves and supplies for the sake of providing competitive advantage to itself. The case of Zorlu Holding exemplifies the first scenario, as it internationalizes and conducts business around the globe with a vast emphasis on sustainability - both environmentally and socially.

Zorlu Holding expresses its commitment to sustainability through its business model that does not compromise well-being of the country that it operates in. The following is the statement that relates to sustainability:

“At Zorlu Holding, we manage our economic, social, environmental, and ethical codes with our identity of corporate sustainability. We are aware that resources are not infinite; therefore, we work in observance of the rules of ethics in order to heighten the quality of human lives and to preserve the equilibrium between nature and resources. These values have been defining our work ethics from day one and enable us to carry on successfully in our

journey that has been going on for longer than half a century” (Zorlu Holding, 2017).

With its commitment to these core values, company voluntarily became part of the United Nations Global Compact framework (UNGC).<sup>9</sup>

Per its alignment with UNGC, Zorlu Holding regards the reducing of carbon footprint, using resources efficiently, and preserving environment as some of its greatest responsibilities. Hence, the holding group highlights that “we are aware that our policy of environmental awareness will be sustainable only if we design our products in a responsible manner” (Vestel, 2017). From this point of view, Zorlu Holding, via Vestel Group, developed innovative ways to create environmentally friendly production solutions for eco-friendly goods not only its home country, but also in larger Europe.

One of the eco-friendly projects that the holding supports is Vestel’s “Nano Chrome Coating” project. This technology and environment themed **innovation enables Vestel to reduce phosphate mud-based waste while producing LED TV and smartphones**. According to Vestel UNGC report, the usage of Nano technology reduces over 2,100 tons of waste per year (Zorlu Holding, 2015). This project recognized by the European Commission’s European Business Awards for the Environment committee *as sustainability based innovative solution and social responsibility project*. Hence, the company took the second place at the 2016-2017 European Commission’s European Business Awards for the Environment (Vestel, 2017). This gives the company high

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<sup>9</sup> The UN Global Compact is a voluntary initiative based on CEO commitments to implement universal sustainability principles and to undertake partnership. Its multi-year strategy to drive business awareness and action in support of achieving the Sustainable Development Goals by 2030 (<https://www.unglobalcompact.org/>, February, 2018).

reputation and attracts foreign investors. Overall, the company is able to sustain its competitiveness and market share through its socially responsible projects.

As the case demonstrates Zorlu Holding integrates Innovation, Corporate Social Responsibility, and Sustainability into its internationalization processes into Europe. Therefore, the case study further supports the propositions.

### **V.iii.iii Case 3: Sabanci Holding**

Does Sabanci Holding integrate innovation, corporate social responsibility, and sustainability to its internationalization processes?

#### **Background Information**

Sabanci Holding is a well-diverse Turkish Business Holding, which is considered as one of the most prominent holding companies in Turkey. The parent company has controlling share on 12 major group companies that are listed in Borsa Istanbul besides its subsidiaries. These companies and manufacturing facilities are well dispersed around the World. They serve sixteen countries and market via their products in “regions across Europe, the Middle East, Asia, North Africa, North and South America” (Sabanci Holding, 2018).

The holding is known for its ability to generate know-how and value in terms of branding and reputation. Due to its prominent role and ability to conduct business not only in home country (Turkey) but also all around the world, Sabanci Holding attract many the World renown brands to invest and work with its group companies. Some of the business partners of the Sabanci Holdings are Philip Morris, Marubeni, Bridgestone, Ageas, Komatsu Carrefour, and Heidelberg Cement.

Sabancı Holding serves its customer base through developing and manufacturing, pioneering goods, technologies and services. Through well-diversified businesses, the main sectors that group member firms operate are energy, cement production, composite technology developments, financial services, bus production, and wool production as well as retail services such as supermarket chains. Specifically, the company offers products; such as, state of the art electric buses (Temsa MD9 electriCITY, Safir Plus and Evenue EV.), high quality worsted wool fabric (one of the biggest manufacturer in Europe), high tech tires (according to the holding's annual investor reports, "one out of every two automobile tires and two out of every three aircraft tires manufactured in the world are reinforced by Kordsa" (Sabancı Holding, 2018)) and cement in European market (MarketLine, 2016).

Due to the scope of the case study, this section focuses on Çimsa, which Sabancı Holding has the controlling majority of the shares (Thomson Reuters, 2018), and the firm's innovative practices that revolve around sustainability. The significance of the Çimsa stems from its role in the white cement industry. It is one of the top brands in the World and leading manufacturer company in Turkish market (Sabancı Holding, 2018). The company sells its products under its own brand name in 65 countries through distributors and production terminals in Trieste (Italy), Seville and Alicante (Spain), Emden and Hamburg (Germany), Constanta (Romania), Novorossiysk (Russia), and Famagusta (Turkish Northern Cyprus) as well as domestic (Turkish) production facilities such as Ankara, Afyon, Mersin, and Kayseri plants (MarketLine, 2016; Sabancı Holding, 2018). Even though it has a large operation, the organization manage to stay innovative

while contribute environmental sustainability projects. The following sub-section displays how Cimsa manage to make this happen while going overseas.

### **Sabanci Holding - Innovation and Sustainability**

Based on the adopted core values of Sabanci, Çimsa centers its production operations on awareness of social responsibility and environmental sustainability in align to its parent company. Even though the corporation has the world's largest white cement plant with having 600 tons under a single roof, it manages to engage with sustainability and innovation projects through various mechanisms.

The production of cement requires usage of both harsh chemicals, intense labor and high rate of capital. As a result, firms either ignore externalities (such as; water, air, and soil pollution) to increase their profitability or limit their production capacity to reduce their operation cost. However, with emphasize on sustainability and innovation, Çimsa has invested \$195 million cumulatively since its inception on sustainability (Çimsa, 2016).

Çimsa's contribution to sustainability goes beyond financial investment. One of the most important involvements of the company is investing in new technologies via hiring skilled worked force, innovating, and designing. With align with Sabanci Holding's sustainability framework; company aims to reduce its carbon footprint, increase raw material efficiency, and eliminate externalities via aforementioned capabilities. These commitments also supported by the Sabanci Holding, controlling and parent firm, and it can be seen from the following statement;

“As a group, based on our responsible business manner, we are working to eliminate the environmental impacts occurred due to our operations. Our key goals are to realize solutions in this regard, to obtain sustainability in operations and to develop our operations according to this approach in all business processes” (Sabanci Holding, 2017).

From this point of view, Sabanci Holding, via Çimsa, developed innovative ways to create environmentally friendly innovations for eco-friendly production abilities not only its home country, but also for Europe.

One of the innovative projects that the holding supported for sustainability is Hotdisc Automatic Waste Feeding System (HAWFS) project. This project enables the Çimsa to reduce its dependency on fossil fuels via using disposal of oil waste and used vehicle tires that are by products of other group companies’ production processes as an alternative energy source. In addition, due to its clean energy initiatives and innovative production solutions, company manages to reach a higher standard of conducting business at a higher efficiency rate. As a result, company not only attracts foreign investors in Europe, but also highly educated people since it puts focus on environmental sustainability and innovation (Cement & Concrete World, 2015). Additionally, due to its escalating reputation and increasing educated skill work base, the firm announced that it decided to establish presence in USA. Çimsa has launched Cimsa Americas Cement Manufacturing and Sales Corp. early 2018 (Global Cement, 2018).

As it can be seen, the case demonstrates its innovative capabilities and their integration into its business processes through well-diversified portfolio of businesses.

The case also suggests that Sabanci Holding reflects social responsibility and sustainability through an integrative rationale.

#### **V.iii.iv Case 4: Borusan Holding**

Does Borusan Holding integrate innovation, corporate social responsibility, and sustainability to its internationalization processes?

##### **Background Information**

The Kocabiyik family founds Borusan Holding in early years of Turkish Republic. From its inception, 1944, to today, the holding company manage to diversify the conglomerate's business interests in four major business areas. These areas can be listed as steel, distributorship, logistic, and energy. Even though Borusan Holding seems not as well diversified as the other holdings that are mentioned previously, a closer look into the organization's structure reveals a different reality.






Borusan Group not only produces steel pipes, cold rolled coils, metal sheets, galvanized coils, but also conduct business in the fields such as sales and services of BMW, Mini, Land Rover, Aston Martin, and Caterpillar (Mermod & Idowu, 2014; Borusan Holding A.S., 2016). The following tables are created to demonstrate the operation fields of Borusan Holding as well as its business partners.




**Table 3:** Borusan Steel Industry Structure. Created by author based on the company's quarterly investor reports.

<b>Steel Industry</b>	
<b>The Pipe Group</b>	<b>The Flat Steel Group</b>
Borusan Mannesman	Borçelik
Borusan Engineering	Kerim Çelik
Borusan Istikbal Trading	

**Table 4:** Borusan Distributorship structure. Created by author based on the company's quarterly investor reports.

<b>Distributorship</b>	
<b>The Earth Moving Equipment Group</b>	<b>The Automotive Group</b>
Borusan Makina ve Güç Sistemleri 	Borusan Oto & Otomotiv
Borusan Engineering	Supsan
Borusan Istikbal Trading	Mannheim Turkey
	 
	 

**Table 5:** Borusan Logistic Group structure. Created by author based on the company's quarterly investor reports.

<b>Logistic</b>
Borusan Logistic
Borusan Logistic International
Borusan Istikbal Trading

**Table 6:** Borusan Energy Group structure. Created by author based on the company's quarterly investor reports.

<b>Energy</b>
Borusan EnBW Energy

**Table 7:** Borusan Business Partners list. Created by author based on the company's quarterly investor reports.

<b>Business Partners</b>
Salzgitter Mannesman
Arcelor Mittal
Caterpillar
Giwa Holding GmbH
EATON
Manheim
EnBW

The holding's earlier year, Borusan Holding stemmed its power from its Turkey and Central Asia markets. It was providing logistic support to countries such as Azerbaijan, Georgia, Kazakhstan and Iran. However, later on its expansion process, the company first opted into becoming exclusive distributors for Arcelor Mittal, Caterpillar, BMW, Mini, Land Rover, and Range Rover (Mermod & Idowu, 2014). After building presence in global markets, it moved to creating its own technologies and expanded overseas via using its own brand.

The goal of the Borusan Holding can be explained in three perspectives. The first perspective is the firm desire and aim to be a good corporate citizen. It implements certain production processes in its manufacturing plants that increase not only its efficiency, but also raise human resource potential of the company. The second perspective is the holding's purpose to support sustainable growth. Borusan Holding

adopts manufacturing processes that are not harmful to environment and society's well being. The third perspective is innovating to better society and the industry to create a positive impact. Therefore, Borusan Holding outlines a unique management ideology, "Borusan Way."

The "Borusan Way" based on values such as efficiency, respecting human rights, contributing to society, and workplace safety. The holding implements projects in its manufacturing sites that encompass these values. Some of these values are included but not limited to United Nations Global Compact Agreement, which Borusan voluntarily become part of in 2006.

### **Borusan Holding – Innovation, Sustainability and CSR**

Educating workforce and integrating different layers of the society to workforce are two of the most important aspects of CSR. Borusan Holding has been successfully providing CSR projects to improve innovative capabilities and sustainability practices not only in Turkey, but also all locations where it conducts business through that understanding.

One of the most important CSR projects that the holding companies implement is corporate university program, the Borusan Academy. Under this project, the corporation provides education on leadership, six sigma, technology literacy, financial expertise and personal improvement. As a result, the company internally develops its human resource potential and enables its employees to better themselves at the same time. It sustains the workforce, reduce turnover rate, and increase attractiveness of the company among highly educated employees as well as blue-collar workers.

Many award committees have recognized the success of the program. One of them was the prestigious talent development excellence award given by Corporate Learning Network, namely the Cubic Awards. In order to win this prestigious award a firm should “spark innovation and productivity through employee engagement”, “clearly align learning & talent with business goals”, “craft leadership development and coaching programs in today’s... world”, “rebrand learning as a performance maker and organizational driver”, “capitalize on the digitalization of learning through mobile, personalized and adaptive channels”, “proving/improving the impact of L&D through analytics” (Corporate Learning Week, 2017). Borusan, with the Borusan Academy initiation, won the Cubic Award in the best corporate university (Business Wire, 2008).

Another prestigious award committee that recognizes Borusan due to its CSR and sustainability initiations is Stevie Awards. Stevie Awards are considered as the “world’s premier business awards” (Stevie Awards, 2017). These awards are given to organizations, which positively contributes working professionals worldwide in order to generate public recognition of the recipients due to good corporate citizenship (Stevie Awards, 2017). Borusan won Gold Stevie Awards in Best Use Of Technology in Customer Service Category at 2017. The same year, the company was also nominated as the best Contact Center of the Year. However, it ended up receiving Silver Stevie Award at the category. In 2018, the company nominated in the same category once again, but this time won the Bronze Stevie Awards. In addition, in 2018, Borusan won the Silver Stevie Award for BOTIM BOOST project, a coaching program for self-improvement and happiness in the workplace.

Furthermore, Borusan becomes the “first company in the global steel pipe sector to achieve the ISO 10002:2004 Customer Complaints Management Certificate” (BOSS Magazine, 2017), and one of the first holdings that obtain ISO 14001 certificate for Environmental Governance System certificate. Also, Borusan awarded with “European Corporate Social Responsibility Award” for its CSR projects in Europe in 2013. In addition, American Metal Market presented best “Technology Provider of the Year”, which is considered as the globally most recognized innovation and excellence in steel and related industries award, to Borusan in 2014. Also, the holding received “Tube and Pipe Producer of the Year Award” at 2016 and 2017.

Borusan increased its presence in the European market via CSR, innovation, and sustainability approach. The holding manage to attract skilled workers in European market and increase its reputation as a corporate citizen through its implemented project. In addition, the undertakings centered on education and good corporate citizenship has increased the overall production quality and manufacturing environment. As a result, the holding manage to become one of the pipe suppliers for Trans Anatolian Natural Gas Pipeline Project (TANAP), which aims to bring natural gas from Azerbaijan to Europe. Borusan is going to generate \$140 million as a one of the major suppliers. Since it is a massive and unique project, being able to participate the project would provide further business opportunities in Europe and Middle East (TANAP, 2014).

**Map 3: TANAP Project Map.** The map is sourced from TANAP's official website.



As stated previously, the case is above illustrates the TBGs' ability to integrate innovation, corporate social responsibility, and sustainability into their international operations.

## VI. Chapter: Conclusion

This dissertation explores TBGs' internationalization processes with the application of explanatory variables of Innovation, Corporate Social Responsibility, and Sustainability. The study employs Explanatory Case Study Approach that includes four case studies. The findings from the analyzes illustrate that the extant theories come short of explaining all the processes that may take place when TBGs internationalize. Therefore, the study suggests that new theories in the field of International Business need to be established.

The findings from the case studies used demonstrate that the relationship between the internationalization processes of TBGs and Innovation, Corporate Social Responsibility, and Sustainability activities range from tangible to intangible undertakings. Therefore, study supports the thesis statement and propositions that there are dynamic interrelationships of innovation, corporate social responsibility, and sustainability factors in the internationalization processes of TBGs. In addition, the research analyzes how each factor is integrated into internationalization process of TBGs. It gives a clear illustration of how manufacturing can be innovative and environmentally sustainable while internationalizing via provided cases.

The discovery of this research comes from TBGs actualization of their know-how and skills through integrating technology and innovation into their EU operations. Therefore, they sustain their ownership and competitive advantages in the manufacturing sector in Europe. They create their innovation through their imaginative and artistic engineering processes and integrate the environmental sustainability and bring efficacy into their international operations.

Therefore, the contribution of this study to the IB field is demonstrating that Emerging Market Multinationals can operate in developed nations, and that they can be innovative, responsible, and sustainable in their international operations. Hence, as the main contribution of this research to the field, it is suggested that the international operations of TBGs may have far greater impact on the society as a whole.

The suggestion of this study for the future research is developing further research and new theories in this field by further exploring various emerging market business groups' internationalization processes into the developed countries.



Overall, the dissertation contributes to the international business field in four distinct ways. First, it expands understanding on the emerging markets. Second, it will contribute to the innovation strand of the international business field via examining recent innovation and internationalization trends in an emerging market, specifically Turkey. Third, the study will provide baseline for future studies that are investigating relationship and linkages among the innovation, corporate governance, and social responsibility in context of emerging markets. Forth, it will provide typology of innovation processes of TBGs. The research will contribute to the International Business literature, as it is one of a kind in the sense that it displays the internationalization process of TBGs into the Western Hemisphere.

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## VIII. Appendix

**Table 8:** Parent and Subsidiary's' Location and Industry Information

<u>Company Name</u>	<u>Parent Company Name</u>	<u>Company Type</u>	<u>Location</u>	<u>Country</u>	<u>Industry</u>	<u>Source</u>
Arcelik AS	Koc Holding A.S	Subsidiary	Beyoglu	Turkey	Electrical Equipment and Appliances Manufacturing	Thomson Reuters
Beko Elektronik AS	Koc Holding A.S	Subsidiary	Istanbul	Turkey	Communications Equipment Manufacturing	LEX
Beko France	Koc Holding A.S	Subsidiary	Saint Denis, Île-de-France	France	Electronics Company Reports / Bloomberg and Appliances Stores	Company Reports / Bloomberg
Beko S.A.	Koc Holding A.S	Subsidiary	Warsaw	Poland	Electronics Company Reports / Bloomberg Wholesale	LEX
Beko Ticaret AS	Koc Holding A.S	Subsidiary	Istanbul	Turkey	Communications Equipment Manufacturing	LEX
S.C. Arctic S.A.	Koc Holding A.S	Subsidiary	Bucharest	Romania	Electrical Equipment and Appliances Manufacturing	LEX
Arcelik Motor Plants	Koc Holding A.S	Subsidiary	Tekirdag	Turkey	Machinery and Equipment Manufacturing	LEX
Beko Deutschland Gesellschaft mit beschränkter Haftung	Koc Holding A.S	Subsidiary	Neu-Isenburg, Hessen	Germany	Electrical Equipment and Appliances Manufacturing	Company Reports / Bloomberg



					g	
Grundig Multimedia B.V.	Koc Holding A.S	Subsidiary	Amsterdam	Netherlands	Holding Companies	Company Reports / Bloomberg
Gpl-Grundig Portuguesa, Comercio De Artigos Electronicos Lda	Koc Holding A.S	Subsidiary	Cruz Quebrada, Lisboa	Portugal	Electronics Company Reports / Bloomberg Wholesale	Company Reports / Bloomberg
Defy Appliances (Proprietary) Limited	Koc Holding A.S	Subsidiary	Durban	South Africa	Electrical Equipment and Appliances Manufacturing	LEX
Otokar Otomotiv ve Savunma Sanayi AS	Koc Holding A.S	Subsidiary	Istanbul	Turkey	Motor Vehicle Manufacturing	Thomson Reuters
Aygaz AS	Koc Holding A.S	Subsidiary	Zincirlikuyu	Turkey	Petroleum Wholesale	Thomson Reuters
Duzey Tuketim Mallari Sanayi Pazarlama A.S.	Koc Holding A.S	Subsidiary	Istanbul	Turkey	Miscellaneous Wholesale	LEX
Setur Servis Turistik A.S.	Koc Holding A.S	Subsidiary	Istanbul	Turkey	Travel and Reservation Services	LEX
Opet A.S.	Koc Holding A.S	Subsidiary	Istanbul, Uskudar	Turkey	Gasoline Stations and Fuel Dealers	LEX
TBS Denizcilik ve Petrol Urunleri Dis Ticaret AS	Koc Holding A.S	Subsidiary	Istanbul	Turkey	Petroleum and Natural Gas Extraction	LEX
Palmira Turizm Ticaret A.S.	Koc Holding A.S	Subsidiary	Istanbul	Turkey	Hotels and Accommodation	LEX
Izocam Tic. San. AS	Koc Holding A.S	Subsidiary	Gebze	Turkey	Non-Metallic Mineral Product Manufacturing	LEX

					g	
Beko PLC	Koc Holding A.S	Subsidiary	Watford	United Kingdom	Electrical Equipment and Appliances Manufacturing	EXP
Leisure Consumer Products Ltd.	Koc Holding A.S	Subsidiary	Watford	United Kingdom	Electrical Equipment and Appliances Manufacturing	EXP
Birlesik Motor Sanayi ve Ticaret AS	Koc Holding A.S	Subsidiary	Istanbul	Turkey	Shipping and Water Transport	LEX
Mogaz Petrol Gazlari AS	Koc Holding A.S	Subsidiary	Istanbul	Turkey	Natural Gas Distribution	LEX
Grundig Intermedia GmbH	Koc Holding A.S	Subsidiary	Nürnberg, Bayern	Germany	Audio and Video Equipment Manufacturing	Company Reports / Bloomberg
Grundig Nordic No AS	Koc Holding A.S	Subsidiary	Ski, Akershus	Norway	Electronics Company Reports / Bloomberg Wholesale	Company Reports / Bloomberg
Tat Konserve San. AS	Koc Holding A.S	Subsidiary	Istanbul	Turkey	Food Manufacturing	LEX
Demir Export A.S.	Koc Holding A.S	Subsidiary	Ankara	Turkey	Metals Mining	LEX
Divan AS	Koc Holding A.S	Subsidiary	Istanbul, Umraniye	Turkey	Hotels and Accommodation	LEX
Akpa A.S.	Koc Holding A.S	Subsidiary	Bursa	Turkey	Miscellaneous Store Retailers	LEX
Tani Pazarlama ve İletişim Hizmetleri A.S.	Koc Holding A.S	Subsidiary	Istanbul	Turkey	Consulting Services	LEX
RMK Marine AS	Koc Holding A.S	Subsidiary	Istanbul, Tuzla	Turkey	Ship and Boat Building	LEX

Beko Deutschland Gesellschaft mit beschränkter Haftung	Koc Holding A.S	Subsidiary	Neu-Isenburg, Hessen	Germany	Electrical Equipment and Appliances Manufacturing	Company Reports / Bloomberg
Bilkom Bilisim Hizmetleri A.S.	Koc Holding A.S	Subsidiary	Istanbul	Turkey	Computer Programming	LEX
Setur Marinalari Marina ve Yat Isletmeciligi	Koc Holding A.S	Subsidiary	Istanbul	Turkey	Miscellaneous Amusement and Recreation	LEX
Otokoc Otomotiv Tic. ve San. A.S.	Koc Holding A.S	Subsidiary	Istanbul	Turkey	Motor Vehicle Rental	LEX
Akpa Dayanikli Tuketim LPG ve Akaryakit Urunleri Pazarlama A.S.	Koc Holding A.S	Subsidiary	Istanbul	Turkey	Gasoline Stations and Fuel Dealers	LEX
Elektra Bregenz AG	Koc Holding A.S	Subsidiary	Vienna	Austria	Electrical Equipment and Appliances Manufacturing	LEX
Aygaz Dogal Gaz Toptan Satis A.S.	Koc Holding A.S	Subsidiary	Istanbul	Turkey	Natural Gas Distribution	LEX
Setair Hava Tasimaciligi ve Hizm AS	Koc Holding A.S	Subsidiary	Istanbul	Turkey	Commercial and Industrial Rental	LEX
Beko ElectroniCompa ny Reports / Bloomberg España SI	Koc Holding A.S	Subsidiary	Barcelona	Spain	Electrical Equipment and Appliances Manufacturing	Thomson Reuters
Ram Dis Ticaret AS	Koc Holding A.S	Subsidiary	Istanbul	Turkey	Consulting Services	LEX
Beko Italy S.r.l.	Koc Holding A.S	Subsidiary	Milano , Milan	Italy	ElectroniCompa ny Reports / Bloomberg Wholesale	Company Reports / Bloomberg

Otokar Europe	Koc Holding A.S	Subsidiary	Roissy En France, Île-de-France	France	Motor Vehicle Manufacturing	Company Reports / Bloomberg
Ram Pacific Ltd.	Koc Holding A.S	Subsidiary	Shenzhen, Shekou	China	Machinery Wholesale	LEX
Harranova Besi ve Tarım Urunleri A.S.	Koc Holding A.S	Subsidiary	Sanliurfa	Turkey	Crop and Animal Production	LEX
Ayvalik Marina ve Yat Isletmeciligi San. ve Tic. A.S.	Koc Holding A.S	Subsidiary	Balikesir	Turkey	Commercial and Industrial Rental	LEX
Kofisa S.A.	Koc Holding A.S	Subsidiary	Geneva	Switzerland	Banking	LEX
Beko S.A. Czech Republic	Koc Holding A.S	Subsidiary	Prague	Czech Republic	Electrical Equipment and Appliances Manufacturing	LEX
Beko Cesko S.R.O.	Koc Holding A.S	Subsidiary	Prague	Czech Republic	Electronics Company Reports / Bloomberg Wholesale	LEX
KaTron Savunma Uzay ve Simulasyon Teknolojileri A.S.	Koc Holding A.S	Subsidiary	Istanbul	Turkey	Computer Programming	LEX
Grundig Nordic AB.	Koc Holding A.S	Subsidiary	Kista	Sweden	Electronics Company Reports / Bloomberg Wholesale	LEX
Ditas Deniz Isletmeciligi ve Tankerciligi A.S.	Koc Holding A.S	Subsidiary	Istanbul	Turkey	Shipping and Water Transport	LEX
Uskudar Tankercilik A.S.	Koc Holding A.S	Subsidiary	Istanbul	Turkey	Shipping and Water Transportation Services	LEX
Beykoz Tankercilik A.S.	Koc Holding A.S	Subsidiary	Istanbul	Turkey	Petroleum and Natural Gas Extraction	LEX
Kadikoy Tankercilik A.S.	Koc Holding A.S	Subsidiary	Istanbul	Turkey	Shipping and Water Transport	LEX

Sariyer Tankercilik A.S.	Koc Holding A.S	Subsidiary	Istanbul	Turkey	Commercial and Industrial Rental	LEX
Beko A and NZ Pty Ltd.	Koc Holding A.S	Subsidiary	Ormeau, QLD	Australia	Electrical Equipment and Appliances Manufacturing	LEX
Ramerica International Inc	Koc Holding A.S	Subsidiary	New York, NY	United States	Food Manufacturing	LEX
Koratrade MTMC Ltd.	Koc Holding A.S	Subsidiary	Dublin	Ireland	Food Manufacturing	LEX
Ark Insaat AS	Koc Holding A.S	Subsidiary	Istanbul	Turkey	Wireless Telecommunications Carriers	LEX
Kocbank AS	Koc Holding A.S	Subsidiary	Istanbul	Turkey	Banking	LEX
Yapi ve Kredi Bankasi A.S.	Koc Holding A.S	Subsidiary	Istanbul	Turkey	Banking	RT
Yapi Kredi Yatirim Menkul Degerler AS	Koc Holding A.S	Subsidiary	Levent	Turkey	Securities	Thomson Reuters
Yapi Kredi Kultur ve Sanat Yayıncılık Tic.ve San.A.S.	Koc Holding A.S	Subsidiary	Istanbul	Turkey	Publishing	LEX
Yapi Kredi Bank Nederland N.V.	Koc Holding A.S	Subsidiary	Amsterdam	Netherlands	Banking	Company Reports / Bloomberg
Yapi Kredi Bank	Koc Holding A.S	Subsidiary	Manama	Bahrain	Banking	OneSource
Yapi Kredi Holding B.V.	Koc Holding A.S	Subsidiary	Amsterdam	Netherlands	Holding Companies	Company Reports / Bloomberg
Yapi Kredi Finansal Kiralama A.O.	Koc Holding A.S	Subsidiary	Istanbul	Turkey	Motor Vehicle Rental	OneSource
Yapi Kredi Bank Azerbaijan CJSC	Koc Holding A.S	Subsidiary	Baku	Azerbaijan	Banking	LEX

Koc Bilgi Grubu İletişim ve Teknoloji Şirketleri AS	Koc Holding A.S	Subsidiary	Istanbul	Turkey	Miscellaneous Professional Services	LEX
KoCompany Reports / Bloombergistem Bilgi ve İletişim Hizm. AS	Koc Holding A.S	Subsidiary	Istanbul, Uskudar	Turkey	Computer Programming	LEX
Koc Bryce Teknoloji Eğitim Hizmetleri AS	Koc Holding A.S	Subsidiary	Istanbul	Turkey	Administratio n of Public Programs	LEX
PROMENA Elektronik Ticaret AS	Koc Holding A.S	Subsidiary	Istanbul	Turkey	Miscellaneous Professional Services	LEX
Bilkom AS	Koc Holding A.S	Subsidiary	Istanbul, Uskudar	Turkey	Publishing	LEX
Biletix Bilet Dağıtım ve Basım Tic AS	Koc Holding A.S	Subsidiary	Istanbul	Turkey	Miscellaneous Professional Services	LEX
Kobiline	Koc Holding A.S	Subsidiary	Istanbul	Turkey	Publishing	LEX
Kav Danışmanlık Paz. Tic. AS	Koc Holding A.S	Subsidiary	Istanbul	Turkey	Wood Product Manufacturin g	LEX
Zer Merkezi Hizmetler ve Ticaret A.S.	Koc Holding A.S	Subsidiary	Istanbul	Turkey	Miscellaneous Professional Services	LEX
Grundig Multimedia B.V.	Koc Holding A.S	Subsidiary	Ridderkerk	Netherland s	Electrical Equipment and Appliances Manufacturin g	LEX
Düzey A.S.	Koc Holding A.S	Subsidiary	Istanbul	Turkey	Road Transportatio n Services	LEX
Opet Fuchs Madeni Yağ A.S.	Koc Holding A.S	Subsidiary	İzmir	Turkey	Petroleum Product Manufacturin g	LEX
Divan Turizm İşletmeleri A.S.	Koc Holding A.S	Subsidiary	Istanbul, Ümraniye	Turkey	Travel and Reservation Services	LEX

Otokoc Sigorta Aracılık Hizmetleri A.S.	Koc Holding A.S	Subsidiary	Istanbul	Turkey	Motor Vehicle Manufacturing	LEX
Koc Bilgi ve Savunma Teknolojileri A.S.	Koc Holding A.S	Subsidiary	Ankara	Turkey	Computer Programming	LEX
Setur Yalova Marina İşletmeciliği A.S.	Koc Holding A.S	Subsidiary	Yalova	Turkey	Shipping and Water Transport	LEX
Teknosa İç ve Dış Ticaret AŞ	Hacı Ömer Sabancı Holding	Subsidiary	Kadıköy	Turkey	Electronics Company Reports / Bloomberg and Appliances Stores	Thomson Reuters
Yünsa Yunlu Sanayi ve Ticaret AŞ	Hacı Ömer Sabancı Holding	Subsidiary	Istanbul	Turkey	Textile Manufacturing	Thomson Reuters
YÜNSA Germany GmbH	Hacı Ömer Sabancı Holding	Subsidiary	Düsseldorf, Nordrhein-Westfalen	Germany	Miscellaneous Wholesale	Company Reports / Bloomberg
Afyon Çimento Sanayi Türk A.Ş.	Hacı Ömer Sabancı Holding	Subsidiary	Afyonkarahisar	Turkey	Cement and Concrete Product Manufacturing	LEX
SASA Polyester Sanayi AŞ	Hacı Ömer Sabancı Holding	Subsidiary	Adana	Turkey	Synthetic Chemical Manufacturing	Thomson Reuters
Temsa Global Sanayi ve Ticaret A.Ş.	Hacı Ömer Sabancı Holding	Subsidiary	Istanbul	Turkey	Motor Vehicle Manufacturing	LEX
Temsa Europe	Hacı Ömer Sabancı Holding	Subsidiary	Lier	Belgium	Motor Vehicle Parts Manufacturing	Thomson Reuters
TEMSA Deutschland GmbH	Hacı Ömer Sabancı Holding	Subsidiary	Neckarsulm, Baden-Württemberg	Germany	Motor Vehicle and Parts Dealers	Company Reports / Bloomberg
EXSA Ltd.	Hacı Ömer Sabancı Holding	Subsidiary	London	United Kingdom	Clothing and Apparel Wholesale	Thomson Reuters

Exsa Export Sanayi Mamulleri Satış ve Araştırma A.Ş.	Hacı Ömer Sabancı Holding	Subsidiary	Istanbul	Turkey	Textile Manufacturing	LEX
Bimsa Uluslararası İş, Bilgi ve Yönetim Sistemleri A.Ş.	Hacı Ömer Sabancı Holding	Subsidiary	Istanbul	Turkey	Computer Programming	LEX
Enerjisa Enerji Üretim A.Ş.	Hacı Ömer Sabancı Holding	Subsidiary	Istanbul	Turkey	Electricity Generation and Distribution	LEX
Enerjisa Baskent Elektrik Dağıtım A.Ş.	Hacı Ömer Sabancı Holding	Subsidiary	Istanbul	Turkey	Electricity Generation and Distribution	LEX
Enerjisa Elektrik Enerjisi Tüccarlığı Satış A.Ş.	Hacı Ömer Sabancı Holding	Subsidiary	Istanbul	Turkey	Electricity Generation and Distribution	Thomson Reuters
Vestel Elektronik Sanayi ve Ticaret A.Ş.	Zorlu Holding A.Ş.	Subsidiary	Istanbul	Turkey	Audio and Video Equipment Manufacturing	Thomson Reuters
Vestel Beyaz Eşya Sanayi ve Ticaret A.Ş.	Zorlu Holding A.Ş.	Subsidiary	Istanbul	Turkey	Electrical Equipment and Appliances Manufacturing	OneSource
Vestel Iberia S.İ.	Zorlu Holding A.Ş.	Subsidiary	Madrid	Spain	Electronics Company Reports / Bloomberg Wholesale	Bloomberg
Cabot Communications Ltd.	Zorlu Holding A.Ş.	Subsidiary	Bristol	United Kingdom	Computer System Design Services	Thomson Reuters
Zorlu Enerji Elektrik Üretim A.Ş.	Zorlu Holding A.Ş.	Subsidiary	Bursa	Turkey	Electricity Generation and Distribution	Thomson Reuters
Enka Tc,OOO	Enka İnşaat ve Sanayi A.Ş.	Subsidiary	Moscow	Russian Federation	Commercial Real Estate Leasing	Company Reports / Bloomberg



Cimtas Celik Imalat Montaj Ve Tesisat A.S.	Enka Insaat ve Sanayi A.S.	Subsidiary	Istanbul	Turkey	Metal Products Manufacturing	LEX
IBH Engineering GmbH	Enka Insaat ve Sanayi A.S.	Subsidiary	Ludwigshafen am Rhein, Rheinland-Pfalz	Germany	Architecture and Engineering	Company Reports / Bloomberg
Cimtas Borulama Sanayi ve Ticaret Ltd. Sti.	Enka Insaat ve Sanayi A.S.	Subsidiary	Bursa	Turkey	Machinery Wholesale	LEX
Adapazari Elektrik Uretim Limited Sirketi	Enka Insaat ve Sanayi A.S.	Subsidiary	Istanbul	Turkey	Specialty Construction Trade Contractors	LEX
Enka Teknik A.S.	Enka Insaat ve Sanayi A.S.	Subsidiary	Istanbul	Turkey	Residential and Commercial Building Construction	LEX
Enka Teknik Genel Muteahhitlik Bakim Isletme Sevk ve Idare Anonim Sirketi	Enka Insaat ve Sanayi A.S.	Subsidiary	Istanbul	Turkey	Specialty Construction Trade Contractors	LEX
Entas Nakliyat ve Turizm Anonim Sirketi	Enka Insaat ve Sanayi A.S.	Subsidiary	Istanbul	Turkey	Travel and Reservation Services	LEX
Mosenka OAO	Enka Insaat ve Sanayi A.S.	Subsidiary	Moscow	Russian Federation	Specialty Construction Trade Contractors	LEX
Cimtas Gemi Insa Sanayi ve Ticaret A.S.	Enka Insaat ve Sanayi A.S.	Subsidiary	Izmit, Kocaeli	Turkey	Specialty Construction Trade Contractors	LEX
Kasktas Kayar Kalip Altyapi Sondaj Kazik ve Tecrit Anonim Sirketi	Enka Insaat ve Sanayi A.S.	Subsidiary	Istanbul	Turkey	Architecture and Engineering	LEX
Gebze Elektrik Uretim Limited Sirketi	Enka Insaat ve Sanayi A.S.	Subsidiary	Istanbul	Turkey	Specialty Construction Trade	LEX

					Contractors	
Izmir Elektrik Uretim Limited Sirketi	Enka Insaat ve Sanayi A.S.	Subsidiary	Istanbul	Turkey	Electricity Generation and Distribution	LEX
Enka Finansal Kiralama A.S.	Enka Insaat ve Sanayi A.S.	Subsidiary	Kadikoy, Istanbul	Turkey	Banking	LEX
Metra Akdeniz Dis Ticaret A.S.	Enka Insaat ve Sanayi A.S.	Subsidiary	Istanbul	Turkey	Specialty Construction Trade Contractors	LEX
Entrade GmbH	Enka Insaat ve Sanayi A.S.	Subsidiary	Mainz, Rheinland-Pfalz	Germany	Miscellaneous Wholesale	Company Reports / Bloomberg
Enmar Trading Ltd	Enka Insaat ve Sanayi A.S.	Subsidiary	London	United Kingdom	Miscellaneous Wholesale	LEX
Cimtas (Ningbo) Steel Processing Company Ltd.	Enka Insaat ve Sanayi A.S.	Subsidiary	Ningbo, Zhejiang	China	Metal Products Manufacturing	LEX
Enka Holding B.V.	Enka Insaat ve Sanayi A.S.	Subsidiary	Schiphol	Netherlands	Holding Companies	LEX
Enka Construction & Development B.V.	Enka Insaat ve Sanayi A.S.	Subsidiary	Schiphol	Netherlands	Pensions and Funds	LEX
Capital City Investment B.V.	Enka Insaat ve Sanayi A.S.	Subsidiary	Schiphol	Netherlands	Pensions and Funds	LEX
Enka Adapazari Power Investment B.V.	Enka Insaat ve Sanayi A.S.	Subsidiary	Schiphol	Netherlands	Pensions and Funds	LEX
Enka Gebze Power Investment B.V.	Enka Insaat ve Sanayi A.S.	Subsidiary	Schiphol	Netherlands	Pensions and Funds	LEX
Enka Izmir Power Investment B.V.	Enka Insaat ve Sanayi A.S.	Subsidiary	Schiphol	Netherlands	Pensions and Funds	LEX
Enka Power Investment B.V.	Enka Insaat ve Sanayi A.S.	Subsidiary	Schiphol	Netherlands	Pensions and Funds	LEX
Covet B.V.	Enka Insaat ve Sanayi A.S.	Subsidiary	Schiphol	Netherlands	Architecture and Engineering	LEX

Far East Development B.V.	Enka Insaat ve Sanayi A.S.	Subsidiary	Schiphol	Netherlands	Pensions and Funds	LEX
Edco Investment B.V.	Enka Insaat ve Sanayi A.S.	Subsidiary	Schiphol	Netherlands	Pensions and Funds	LEX
Enru Development B.V.	Enka Insaat ve Sanayi A.S.	Subsidiary	Schiphol	Netherlands	Pensions and Funds	LEX
MCC Investment SA.	Enka Insaat ve Sanayi A.S.	Subsidiary	Geneva	Switzerland	Securities	LEX
Titas Toprak Insaat ve Taahhut Anonim Sirketi	Enka Insaat ve Sanayi A.S.	Subsidiary	Istanbul	Turkey	Specialty Construction Trade Contractors	LEX
Airenka Hava Tasimaciligi A.S.	Enka Insaat ve Sanayi A.S.	Subsidiary	Besiktas, Istanbul	Turkey	Airlines	LEX
Rumos S.A.	Enka Insaat ve Sanayi A.S.	Subsidiary	Lisbon	Portugal	Computer System Design Services	LEX
Efes Pazarlama ve Dagitim Ticaret A.S.	Anadolu Efes Biracilik ve Malt Sanayi As	Subsidiary	Istanbul	Turkey	Alcoholic Beverage Wholesale	LEX
ZAO Moscow-Efes Brewery	Anadolu Efes Biracilik ve Malt Sanayi As	Subsidiary	Moscow	Russian Federation	Beverage Manufacturing	LEX
OOO Vostok Solod	Anadolu Efes Biracilik ve Malt Sanayi As	Subsidiary	Kazan	Russian Federation	Beverage Manufacturing	LEX
Efes Breweries International N.V.	Anadolu Efes Biracilik ve Malt Sanayi As	Subsidiary	Amsterdam	Netherlands	Beverage Manufacturing	Company Reports / Bloomberg
EURO-ASIEN-Brauereien Holding GmbH	Anadolu Efes Biracilik ve Malt Sanayi As	Subsidiary	München, Bayern	Germany	Holding Companies	Company Reports / Bloomberg
Efes Deutschland GmbH	Anadolu Efes Biracilik ve Malt Sanayi As	Subsidiary	Köln, Nordrhein-Westfalen	Germany	Miscellaneous Professional Services	Company Reports / Bloomberg
Efes Vitanta Moldova Brewery S.A.	Anadolu Efes Biracilik ve Malt Sanayi As	Subsidiary	Chisinau	Moldova, Republic of	Beverage Manufacturing	LEX
Central Asian Beverages B.V.	Anadolu Efes Biracilik ve Malt Sanayi As	Subsidiary	Amsterdam, North Holland	Netherlands	Securities	LEX

TAV Tunisie S.A.	TAV Havalimanlari Holding A.S.	Subsidiary	Les Berges du Lac	Tunisia	Air Transportation Services	CENG
Dogan Sirketler Grubu Holding AS	Adil Bey Holding A.S	Subsidiary	Uskudar	Turkey	Publishing	Thomson Reuters
Dogan Yayin Holding AS	Adil Bey Holding A.S	Subsidiary	Uskudar	Turkey	Publishing	Thomson Reuters
Hurriyet Gazetecilik ve Matbaacilik A.S.	Adil Bey Holding A.S	Subsidiary	Istanbul	Turkey	Publishing	Thomson Reuters
Trader Media East Limited	Adil Bey Holding A.S	Subsidiary	Naarden	Netherlands	Advertising Services	Thomson Reuters
Hurriyet Invest B.V.	Adil Bey Holding A.S	Subsidiary	Amsterdam	Netherlands	Holding Companies	Company Reports / Bloomberg
Dogan Gazetecilik A.S.	Adil Bey Holding A.S	Subsidiary	Istanbul	Turkey	Publishing	Thomson Reuters
Ditas Dogan Yedek Parca Imalat ve Teknik	Adil Bey Holding A.S	Subsidiary	Nigde	Turkey	Motor Vehicle Parts Manufacturing	Thomson Reuters
Celik Halat ve Tel Sanayii A.S.	Adil Bey Holding A.S	Subsidiary	Izmit	Turkey	Metal Products Manufacturing	Thomson Reuters
Dogan Media (International) Gesellschaft mit beschränkter Haftung	Adil Bey Holding A.S	Subsidiary	Mörfelden-Walldorf, Hessen	Germany	Printing	Company Reports / Bloomberg
Milpa Tcr ve Sn Urnlr Pzlm Sny ve Tcr AS	Adil Bey Holding A.S	Subsidiary	Kadikoy	Turkey	Real Estate Agents and Brokers	Thomson Reuters
Turkcell Iletisim Hizmetleri A.S.	Cukurova Holding A.S	Subsidiary	Istanbul	Turkey	Wired Telecommunications Carriers	LEX
Noksel Espana S.A.	Cukurova Holding A.S	Subsidiary	Madrid	Spain	Metal Products Manufacturing	LEX
Anadolu Endustri Holding A.S.	Yazicilar Holding AS	Subsidiary	Istanbul	Turkey	Holding Companies	LEX

Celik Motor Ticaret A.S.	Yazicilar Holding AS	Subsidiary	Sekerpinari, Kocaeli	Turkey	Motor Vehicle and Parts Dealers	LEX
Anadolu Bilisim Hizmetleri A.S.	Yazicilar Holding AS	Subsidiary	Istanbul	Turkey	Computer Programming	LEX
Anadolu Motor Uretim ve Pazarlama A.S.	Yazicilar Holding AS	Subsidiary	Istanbul	Turkey	Machinery and Equipment Manufacturing	LEX
Anadolu Restoran Isletmeleri Limited Sirketi	Yazicilar Holding AS	Subsidiary	Istanbul	Turkey	Restaurants and Bars	LEX
Efes Turizm Isletmeleri A.S.	Yazicilar Holding AS	Subsidiary	Istanbul	Turkey	Travel and Reservation Services	LEX
Anadolu Araclar Ticaret A.S.	Yazicilar Holding AS	Subsidiary	Istanbul	Turkey	Motor Vehicle Wholesale	LEX
Anadolu Varlik Yonetim A.S.	Yazicilar Holding AS	Subsidiary	Istanbul	Turkey	Real Estate Agents and Brokers	LEX
Anadolu Endustri Holding und Co. KG	Yazicilar Holding AS	Subsidiary	Munich, Bavaria	Germany	Consulting Services	LEX
OYEX - Handels GmbH	Yazicilar Holding AS	Subsidiary	München, Bayern	Germany	Machinery Wholesale	Company Reports / Bloomberg
Alternatif Yatirim AS	Yazicilar Holding AS	Subsidiary	Istanbul	Turkey	Securities	Thomson Reuters
SANTEX MODEN GmbH	Sahinler Holding A.S	Subsidiary	Würselen, Nordrhein-Westfalen	Germany	Clothing and Apparel Manufacturing	Company Reports / Bloomberg
Cift Geyik Karaca Giyim Sanayi ve Ticaret Limited Sti	Tekfen Holding A.S.	Subsidiary	Istanbul	Turkey	Clothing and Apparel Manufacturing	Thomson Reuters
HMB Hallesche Mitteldeutsche Bau-AG	Tekfen Holding A.S.	Subsidiary	Halle, Sachsen-Anhalt	Germany	Residential and Commercial Building Construction	Company Reports / Bloomberg

Toros Tarim	Tekfen Holding A.S.	Subsidiary	Istanbul	Turkey	Agricultural Chemical Manufacturing	Thomson Reuters
TAYSEB - Toros Adana Yumurtalik Free Trade Zone Founder and Operating Co., Inc.	Tekfen Holding A.S.	Subsidiary	Adana	Turkey	Commercial Real Estate Leasing	Thomson Reuters
Tekfen Construction & Installation Co., Inc.	Tekfen Holding A.S.	Subsidiary	Istanbul	Turkey	Architecture and Engineering	Thomson Reuters
Tekfen Insurance Brokerage Services Co., Inc.	Tekfen Holding A.S.	Subsidiary	Istanbul	Turkey	Insurance Agents	Thomson Reuters
Antalya Free Trade Zone Operating Co., Inc.	Tekfen Holding A.S.	Subsidiary	Antalya	Turkey	Commercial Real Estate Leasing	LEX
Tekfen Engineering Co., Inc.	Tekfen Holding A.S.	Subsidiary	Istanbul	Turkey	Architecture and Engineering	LEX
Tekfen Industry & Trade Co., Inc.	Tekfen Holding A.S.	Subsidiary	Istanbul	Turkey	Electrical Equipment and Appliances Manufacturing	LEX
Papfen Joint Stock Company	Tekfen Holding A.S.	Subsidiary	Tashkent	Uzbekistan	Real Estate Agents and Brokers	LEX
Cenup Tikinti Servis	Tekfen Holding A.S.	Subsidiary	Baku	Azerbaijan	Architecture and Engineering	LEX
Celebi Cargo GmbH	Celebi Holding A.S	Subsidiary	Frankfurt am Main	Germany	Road Transportation Services	LEX
Alarko Carrier Sanayi ve Ticaret AS	Alarko Carrier Sanayi ve Ticaret AS	Subsidiary	Istanbul	Turkey	Machinery and Equipment Manufacturing	Thomson Reuters

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Alsim Alarko San. Tes. ve Tic. A.S.	Alarko Carrier Sanayi ve Ticaret AS	Subsidiary	Gebze, Kocaeli	Turkey	Architecture and Engineering	LEX
Attas Alarko Turistik Tesisler A.S.	Alarko Carrier Sanayi ve Ticaret AS	Subsidiary	Istanbul	Turkey	Travel and Reservation Services	LEX
Borusan Mannesman ERW	Borusan Holding	Subsidiary	Gemlik	Turkey	Steel Pipe Production and Construction profiles	Company Reports / MarketLine
Borusan Mannesman	Borusan Holding	Subsidiary	Halkali	Turkey	Industrial Pipes and Profiles Production	Company Reports / MarketLine
Borusan Mannesman	Borusan Holding	Subsidiary	Vobarno	Italy	Cold Drawn Pipes Production	Company Reports / MarketLine
Borusan Mannesman US	Borusan Holding	Subsidiary	Houston	USA	OCTG and ERW Line Pipes Production	Company Reports / MarketLine
Borçelik	Borusan Holding	Subsidiary	Gemlik	Turkey	Galvanized Steel Sheet Production	Company Reports / MarketLine
Borusan Engineering	Borusan Holding	Subsidiary	Gemlik/Bursa	Turkey	Machinery Design & Production	Company Reports / MarketLine
Borusan Otomotiv and Borusan Oto	Borusan Holding	Subsidiary	Multiple Location	Turkey	Car and Car Parts Distributor	Company Reports / MarketLine
Borusan Makina ve Guc Sistemleri	Borusan Holding	Subsidiary	Multiple Location	Turkey, Kazakhstan , Azerbaijan, Georgia	Machinery Management and Control System Provider	Company Reports / MarketLine
Borusan Manheim	Borusan Holding	Subsidiary	Ankara/Istanbul	Turkey	Vehicle Auction	Company Reports / MarketLine

Supsan	Borusan Holding	Subsidiary	Istanbul	Turkey	Engine Valves and Car Parts Production	Company Reports / MarketLine
Borusan EnBW	Borusan Holding	Joint Venture	Istanbul	Turkey	Renewable Energy Production	Company Reports / MarketLine
Borusan Lojistik	Borusan Holding	Subsidiary	Istanbul/Gemlik	Turkey	Port and Logistic Services	Company Reports / MarketLine
Borusan ArGe	Borusan Holding	Subsidiary	Istanbul/Gemlik	Turkey	Research and Development Services	Company Reports
Borusan Danismanlik	Borusan Holding	Subsidiary	Istanbul	Turkey	Education and Consultancy Services	Company Reports
Eczacibasi Yapi Gerecleri Sanayi ve Ticaret A.S.	Eczacibasi Holding A.S.	Subsidiary	Sisli	Turkey	Non-Metallic Mineral Product Manufacturing	LEX
EIS Eczacibasi Ilc Sn Fnsi Ytrmlr Sny Tcrt	Eczacibasi Holding A.S.	Subsidiary	Istanbul	Turkey	Pharmaceutical Manufacturing	Thomson Reuters
V & B Fliesen GmbH	Eczacibasi Holding A.S.	Subsidiary	Merzig, Saarland	Germany	Non-Metallic Mineral Product Manufacturing	Company Reports / Bloomberg
Fliesenhandel Merzig GmbH	Eczacibasi Holding A.S.	Subsidiary	Merzig, Saarland	Germany	Construction and Hardware Materials Wholesale	Company Reports / Bloomberg
Fliesenhandel an der Cristallerie GmbH	Eczacibasi Holding A.S.	Subsidiary	Wadgassen, Saarland	Germany	Construction and Hardware Materials Wholesale	Company Reports / Bloomberg
Ipek Kagit San. ve Tic. A.S.	Eczacibasi Holding A.S.	Subsidiary	Istanbul, Beykoz	Turkey	Paper Product Manufacturing	LEX
Intema Insaat ve Tesisat Malzemeleri	Eczacibasi Holding A.S.	Subsidiary	Levent	Turkey	Construction and Hardware Materials Wholesale	Thomson Reuters



Eczacibasi Menkul Degerler A.S.	Eczacibasi Holding A.S.	Joint Venture	Istanbul	Turkey	Securities	Thomson Reuters
ENGERS KERAMIK GmbH & Co. KG	Eczacibasi Holding A.S.	Subsidiary	Neuwied, Rheinland-Pfalz	Germany	Furniture Manufacturing	Company Reports / Bloomberg
Vitra AG	Eczacibasi Holding A.S.	Subsidiary	Birsfelden	Switzerland	Furniture Manufacturing	LEX
Artek oy ab	Eczacibasi Holding A.S.	Subsidiary	Helsinki	Finland	Furniture Manufacturing	Company Reports / Bloomberg
VitrA Bad GmbH	Eczacibasi Holding A.S.	Subsidiary	Köln, Nordrhein-Westfalen	Germany	Metal Products Manufacturing	Company Reports / Bloomberg
Vitra (U.K.) Ltd.	Eczacibasi Holding A.S.	Subsidiary	Didcot	United Kingdom	Miscellaneous Wholesale	EXP
Eczacibasi Yatirim Holding Ortakligi AS	Eczacibasi Holding A.S.	Subsidiary	Levent	Turkey	Residential and Commercial Building Construction	Thomson Reuters
Esan Italia Minerals S.r.l.	Eczacibasi Holding A.S.	Subsidiary	Sassuolo , Modena	Italy	Professional and Commercial Equipment Wholesale	Company Reports / Bloomberg
Capintec Inc.	Eczacibasi Holding A.S.	Subsidiary	Ramsey, NJ	United States	Electromedical and Control Instruments Manufacturing	Thomson Reuters

**Table 9:** Regional breakdown of the subsidiaries for Europe. Industry definitions are used to determine whether or not a given subsidiary is a manufacturing subsidiary.

<u>Parent Company Name</u>	<u>Company Type</u>	<u>Location</u>	<u>Country</u>	<u>Industry</u>
Koc Holding A.S	Subsidiary	Saint Denis, Île-de-France	France	Electronics and Appliances Stores
Koc Holding A.S	Subsidiary	Warsaw	Poland	Electronics Wholesale

Koc Holding A.S	Subsidiary	Bucharest	Romania	Electrical Equipment and Appliances Manufacturing
Koc Holding A.S	Subsidiary	Neu-Isenburg, Hessen	Germany	Electrical Equipment and Appliances Manufacturing
Koc Holding A.S	Subsidiary	Amsterdam	Netherlands	Holding Companies
Koc Holding A.S	Subsidiary	Cruz Quebrada, Lisboa	Portugal	Electronics Wholesale
Koc Holding A.S	Subsidiary	Watford	United Kingdom	Electrical Equipment and Appliances Manufacturing
Koc Holding A.S	Subsidiary	Watford	United Kingdom	Electrical Equipment and Appliances Manufacturing
Koc Holding A.S	Subsidiary	Nürnberg, Bayern	Germany	Audio and Video Equipment Manufacturing
Koc Holding A.S	Subsidiary	Ski, Akershus	Norway	Electronics Wholesale
Koc Holding A.S	Subsidiary	Neu-Isenburg, Hessen	Germany	Electrical Equipment and Appliances Manufacturing
Koc Holding A.S	Subsidiary	Vienna	Austria	Electrical Equipment and Appliances Manufacturing
Koc Holding A.S	Subsidiary	Barcelona	Spain	Electrical Equipment and Appliances Manufacturing
Koc Holding A.S	Subsidiary	Milano , Milan	Italy	Electronics Wholesale
Koc Holding A.S	Subsidiary	Roissy En France, Île-de-France	France	Motor Vehicle Manufacturing
Koc Holding A.S	Subsidiary	Geneva	Switzerland	Banking
Koc Holding A.S	Subsidiary	Prague	Czech Republic	Electrical Equipment and Appliances Manufacturing
Koc Holding A.S	Subsidiary	Prague	Czech Republic	Electronics Wholesale
Koc Holding A.S	Subsidiary	Kista	Sweden	Electronics Wholesale
Koc Holding A.S	Subsidiary	Dublin	Ireland	Food Manufacturing
Koc Holding A.S	Subsidiary	Amsterdam	Netherlands	Banking
Koc Holding A.S	Subsidiary	Amsterdam	Netherlands	Holding Companies
Koc Holding A.S	Subsidiary	Ridderkerk	Netherlands	Electrical Equipment and Appliances Manufacturing

Haci Omer Sabanci Holding	Subsidiary	Düsseldorf, Nordrhein-Westfalen	Germany	Miscellaneous Wholesale
Haci Omer Sabanci Holding	Subsidiary	Lier	Belgium	Motor Vehicle Parts Manufacturing
Haci Omer Sabanci Holding	Subsidiary	Neckarsulm, Baden-Württemberg	Germany	Motor Vehicle and Parts Dealers
Haci Omer Sabanci Holding	Subsidiary	London	United Kingdom	Clothing and Apparel Wholesale
Zorlu Holding A.S	Subsidiary	Madrid	Spain	Electronics Wholesale
Zorlu Holding A.S	Subsidiary	Bristol	United Kingdom	Computer System Design Services
Enka Insaat ve Sanayi A.S.	Subsidiary	Moscow	Russian Federation	Commercial Real Estate Leasing
Enka Insaat ve Sanayi A.S.	Subsidiary	Ludwigshafen am Rhein, Rheinland-Pfalz	Germany	Architecture and Engineering
Enka Insaat ve Sanayi A.S.	Subsidiary	Moscow	Russian Federation	Specialty Construction Trade Contractors
Enka Insaat ve Sanayi A.S.	Subsidiary	Mainz, Rheinland-Pfalz	Germany	Miscellaneous Wholesale
Enka Insaat ve Sanayi A.S.	Subsidiary	London	United Kingdom	Miscellaneous Wholesale
Enka Insaat ve Sanayi A.S.	Subsidiary	Schiphol	Netherlands	Holding Companies
Enka Insaat ve Sanayi A.S.	Subsidiary	Schiphol	Netherlands	Pensions and Funds
Enka Insaat ve Sanayi A.S.	Subsidiary	Schiphol	Netherlands	Pensions and Funds
Enka Insaat ve Sanayi A.S.	Subsidiary	Schiphol	Netherlands	Pensions and Funds
Enka Insaat ve Sanayi A.S.	Subsidiary	Schiphol	Netherlands	Pensions and Funds
Enka Insaat ve Sanayi A.S.	Subsidiary	Schiphol	Netherlands	Pensions and Funds
Enka Insaat ve Sanayi A.S.	Subsidiary	Schiphol	Netherlands	Pensions and Funds

Enka Insaat ve Sanayi A.S.	Subsidiary	Schiphol	Netherlands	Architecture and Engineering
Enka Insaat ve Sanayi A.S.	Subsidiary	Schiphol	Netherlands	Pensions and Funds
Enka Insaat ve Sanayi A.S.	Subsidiary	Schiphol	Netherlands	Pensions and Funds
Enka Insaat ve Sanayi A.S.	Subsidiary	Schiphol	Netherlands	Pensions and Funds
Enka Insaat ve Sanayi A.S.	Subsidiary	Geneva	Switzerland	Securities
Enka Insaat ve Sanayi A.S.	Subsidiary	Lisbon	Portugal	Computer System Design Services
Anadolu Efes Biracilik ve Malt Sanayi As	Subsidiary	Moscow	Russian Federation	Beverage Manufacturing
Anadolu Efes Biracilik ve Malt Sanayi As	Subsidiary	Kazan	Russian Federation	Beverage Manufacturing
Anadolu Efes Biracilik ve Malt Sanayi As	Subsidiary	Amsterdam	Netherlands	Beverage Manufacturing
Anadolu Efes Biracilik ve Malt Sanayi As	Subsidiary	München, Bayern	Germany	Holding Companies
Anadolu Efes Biracilik ve Malt Sanayi As	Subsidiary	Köln, Nordrhein-Westfalen	Germany	Miscellaneous Professional Services
Anadolu Efes Biracilik ve Malt Sanayi As	Subsidiary	Chisinau	Moldova, Republic of	Beverage Manufacturing
Anadolu Efes Biracilik ve Malt Sanayi As	Subsidiary	Amsterdam, North Holland	Netherlands	Securities
Adil Bey Holding A.S	Subsidiary	Naarden	Netherlands	Advertising Services
Adil Bey Holding A.S	Subsidiary	Amsterdam	Netherlands	Holding Companies
Adil Bey Holding A.S	Subsidiary	Mörfelden-Walldorf, Hessen	Germany	Printing
Cukurova Holding A.S	Subsidiary	Madrid	Spain	Metal Products Manufacturing

Yazicilar Holding AS	Subsidiary	Munich, Bavaria	Germany	Consulting Services
Yazicilar Holding AS	Subsidiary	München, Bayern	Germany	Machinery Wholesale
Sahinler Holding A.S	Subsidiary	Würselen, Nordrhein-Westfalen	Germany	Clothing and Apparel Manufacturing
Tekfen Holding A.S.	Subsidiary	Halle, Sachsen-Anhalt	Germany	Residential and Commercial Building Construction
Celebi Holding A.S	Subsidiary	Frankfurt am Main	Germany	Road Transportation Services
Eczacibasi Holding A.S.	Subsidiary	Merzig, Saarland	Germany	Non-Metallic Mineral Product Manufacturing
Eczacibasi Holding A.S.	Subsidiary	Merzig, Saarland	Germany	Construction and Hardware Materials Wholesale
Eczacibasi Holding A.S.	Subsidiary	Wadgassen, Saarland	Germany	Construction and Hardware Materials Wholesale
Eczacibasi Holding A.S.	Subsidiary	Neuwied, Rheinland-Pfalz	Germany	Furniture Manufacturing
Eczacibasi Holding A.S.	Subsidiary	Birsfelden	Switzerland	Furniture Manufacturing
Eczacibasi Holding A.S.	Subsidiary	Helsinki	Finland	Furniture Manufacturing
Eczacibasi Holding A.S.	Subsidiary	Köln, Nordrhein-Westfalen	Germany	Metal Products Manufacturing
Eczacibasi Holding A.S.	Subsidiary	Didcot	United Kingdom	Miscellaneous Wholesale
Eczacibasi Holding A.S.	Subsidiary	Sassuolo , Modena	Italy	Professional and Commercial Equipment Wholesale