

## AN ANALYSIS OF NETWORK ORGANIZATIONS WITH MARKET PERSPECTIVE: CASES OF TURKISH FIRMS

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### ÖZET

*Organizasyon yapıları, çevre ve rekabet şartları, küreselleşme, bilgi teknolojilerindeki gelişmeler gibi faktörlere bağlı olarak daha esnek, yalın ve basık hale gelmekte, böylece tüketici taleplerini en uygun şartlarda karşılayarak değer meydana getirmek hedeflenmektedir. Network (şebeke örgütler), son yıllarda bu tür yapılanmaların bir örneğidir ve aracı kurumun önderliğinde üretim, pazarlama, AR-GE gibi farklı faaliyetleri yürüten farklı kurumların biraraya gelmesiyle oluşan esnek yapılarıdır. İşletmeleri bu tür yapılanmaya iten faktörler esas olarak pazarlama ve çevre şartlarına bağlıdır.*

*Bu çalışmada şebeke örgütler pazarlama yaklaşımıyla incelenmiş, Türk işletmelerinden örnekler verilmiştir. Özellikle uluslar arası pekçok pazarlama faaliyetleri şebeke yaklaşımıyla açıklanabilir. Örneğin tekstil ve gıda sektörlerinde uluslar arası pazarlarda faaliyet gösteren Türk işletmeleri şebeke yapıları kurmuşlardır.*

### I-INTRODUCTION

Major changes taking place in business environments can be characterized by intensive competition, rapid developments in information technologies, and dependence on human resources and their creativity in gaining competitiveness. Moreover firms are surrounded by an economy that founded on innovation and change. All these and other factors force management's to design more flexible organizations. Centrally managed, hierarchy-based organizations which have problems in responding to rapidly changing markets and products are now replaced by flatter, lean and adaptive organizations.

Under such circumstances, the key feature of the new organization structure is understanding customer needs and offering value to them. Clusters of business units coordinated by market mechanisms rather than by layers of middle management planners are called network organizations. As a new approach to departmentalization and organization structure,

networking requires major functions to be desegregated into separate companies which are brokered by a small headquarters organization[1;317]. The network form of organizations refers to relationships that are formed among several independent organizations that are linked both vertically and horizontally [2;21]. Vertical links are among members of the value added system from suppliers to end users whereas horizontal links are among actual and potential competitors. Flexibility and adaptability are crucial in structuring that result in flatter organizations. Interaction among partners create more complex and less stable structures than multi layered hierarchies. Instead of tight control, effective use of information systems, often global in scope, acts as the brain of the network[2;22]. Partners in a network may need to share information on RD, manufacturing, marketing and other areas. The logic of strategic alliances can be explained in that manner. Each partner can gain access to each other's core competences. Rockart and Short explain in their study that network organizations "are usually conceived of as communication-rich environments, with information flows blurring traditional intracompany boundaries" These can be thought of "more as interrelationships within or between firms to accomplish work than as formal organizational design per se"[3;27]. Thus more use of information and communication technology is a characteristic of networked organizations. Other characteristics and aims of network organization can be summarized as follows:

\* The network organization structure should improve effectiveness. Effectiveness should be assessed by not only financial performance but also market position and customer satisfaction.

\* The network organization should encourage innovation. Product and market innovation needs to be coordinated within the active role of networking. \* This new approach to organization structures make effective use of information technology facilitating effective coordination between different business units.

## II-DRIVING FACTORS AND CAUSES OF NETWORK ORGANIZATIONS

Driving factors and causes of network organizations are numerous.

Organizations have grown rapidly during the 1950s and 1960s becoming huge enterprises and achieving economies of scale in their production. Tied control and central planning were of major concern of these managements. Later, during the 1980s these huge corporations could not be able to respond the market conditions anymore and they seeked for ways to adapt the dynamic environmental changes and to respond to customer needs more rapidly than before. Thus firms began to downsize by becoming smaller and flatter in structure doing fewer things with less expenditure. While firms specialize in certain products and areas in which they feel they are best, some other functions and duties are transferred to those which are able to perform the duties in question more effectively. Therefore outsourcing is another characteristic of today's companies.

All these factors force firms to organize their activities in network forms. Some of the factors that accelerate the use of network organizations are technology-based whereas others are driven from marketing and environmental complexities[4;2-19].

### *Globalization and Technological Change.*

Globalization of markets result in creation of strong new players at every stage of the value chain(upward and downward). Companies serving either domestic or international markets feel the impact of fierce competition in their activities. When they compete they form alliances such as joint ventures, research and marketing compacts, cross-licensing and so on[5;229]. Marketing, technology and needs of people accelerate this trend.

Another dynamic factor is technological change and technology transfer across borders. This creates environmental complexity and risk for business enterprises. Shorter product life cycles, lower barriers to entry, economies of scope are a few results of technological change.

### *Blurred market boundaries.*

Another factor determining environmental complexity and risk is blurred market boundaries[2;20].

The once clearly defined boundaries of markets are now becoming intertwined.

The information industry is an important example of the pressures imposed by the blurring of market boundaries. The computer telecommunications, consumer electronics, entertainment media publishing, and office equipment industries are becoming interlinked. Industry interconnection, coupled with the common use of digital technology greatly increases the complexity of a single firm trying to compete against an array of customer requirements and technologies necessary to satisfy customer needs.

This development can be explained in terms of globalization of markets and businesses. In globalization of markets, the world is considered and treated as a single market by corporations and enterprises.

Under such circumstances, firms pooling their unique skills form collaborations and alliances in order to enter new markets more rapidly than before. Interorganizational linkages enable the organization to manage some of its environmental constraints and control contingencies it confronts. Each partner bringing its core competence in technology, marketing or other skills they form a kind of network organization called joint venture or strategic alliance[2].

*Resource and skills gap* between companies is another reason for forming network organizational structures. Firms specializing and gaining advantage in their specific business fields, come together and pool their resources and skills to be more competitive in global markets. There are numerous examples supporting this fact, especially in electronics and automobile industries. For example Apple Computer, Motorola and Sony work together to develop pocket-sized cellular phones [2]. GM and Toyota collaborate in the United States and Australia, Mazda and Ford swap cars in the Triad [6;150]. Companies collaborating with each other jointly bring their resources and skills and create network organizations to develop new technologies and markets. Viewed from the marketing perspective, networking is used as an approach to explain the behavior and internationalization process of international corporations.

## III-PRACTICES AND FORMS OF NETWORK ORGANIZATIONS

Organizational design and strategy (historically the two evolve together) depend on the characteristics of the market which is determined by environmental changes and competitive challenges[7]. The forces that have created network structures are rooted mainly by marketing challenges. In this paper the networking forms are analyzed according to this perspective. Globalization of markets has an important effect on the development of network organizations.

In its theoretical background, network organizations can be classified in three broad groups: internal network, stable network and dynamic network[4]. The internal network arises to capture market benefits with network firm owning most or all of the assets associated with a particular business. There are numerous examples for that kind of network organization. Multinational resource based companies are good examples of internal network[4;13]. An international oil company would likely find it too costly to be involved in all related activities like exploration, extraction, refining etc. Instead of allocating resources for these activities with a central planning mechanism, inside the company, clusters of business units can be seen buying and selling from one another as well as from outside firms. One disadvantage of internal network is that corporate politics may dictate divisions to transfer goods at administered prices instead of exchanging goods and services at current market prices.

The stable network is characterized by partial outsourcing and has flexibility to some extent. Several firms own the assets of a particular business. Joint venturing and partnering with other firms is also a part of stable network. Automobile manufacturing companies can be good examples of that kind. Different parts are produced at different plants engaging in joint ventures and outsourcing.

The third type, so called dynamic network is both a cause and a result of today's competitive environment. Some firms have pushed the network form to the apparent limits of its capabilities. Outsourcing is maximized in this model. Businesses such as textile, toys and publishing firms can best fit dynamic network. The lead firm that typically rely on a core skill such as manufacturing, R/D or in some cases pure brokering identifies and assembles assets owned largely by other companies. Each network node practices its particular expertise and if brokers are able to package resources quickly, the company's responsiveness increases dramatically. Dynamic network is especially effective in competitive industries.

Another approach to network organization is to explain it with inter organizational relationships[8]. The growing importance of network organizations can be explained by designing relationships with other organizations in which each offers a core competency the others do not have. Networking should therefore, have a perspective in explaining international behaviors of firms. As Johanson and Mattson states in their study "markets have to be seen as networks". Networking relations are composed by firms which engage in production, distribution, research and development and other functional areas. Firms in a network have

relationships with customers, distributors, suppliers, mediators etc. The dimensions of these relationships can be technical, knowledge, social, economic and legal based. Thus, the dynamic structure of networking can be best fit between organization and its environment. From this point of view, especially dynamic networks are one of the best ways in explaining inter organizational linkages and international behavior of firms.

#### IV-EXAMPLES OF TURKISH FIRMS AS NETWORK ORGANIZATIONS

Turkish enterprises are also witnessed to be in the process of networking. Firms operating especially in textile and construction industries where they have competitive advantage are becoming involved in network structures. Firms in the textile industry are operating internationally in European countries and try to encounter several conditions created by market dynamics and competition by forming network organizational structures. Similarly Turkish construction firms in Russia and newly independent Republics subcontract their activities to other firms and form a certain kind of network organization.

Turkish companies have been gaining pace in the internationalization process since the early 1980s when an outward looking and export oriented growth policy was implemented. Those companies which previously had been active within neighboring countries' markets expanded their foreign operations in other near markets and they seem to have significant market potentials in terms of macro environmental factors.

The outcome of the research held in the late 1993 regarding the internationalization process of Turkish industrial firms can be evaluated under five separate headings.

The research was held on a sample of the largest 210 Turkish industrial firms operating in the private sector and the data were gathered by questionnaire forms. The internationalization level and trend of the firms in the sample were evaluated with five different criteria[14]

\*The organization structure of the firms and level of their international activities in the structure.

\*The ways they enter foreign markets.

\*Distribution of their activities in different projects.

\*Number of markets in which they have international business activities of various kinds.

\*The interpretation of international projects the firms have in the short and long run.

One major significant outcome of the research is the level of international divisions in the whole organization structure. International marketing activities of 78 percent of the companies that were involved in the research were structured at the manager level. The ratio of foreign sales to total sales of the same group of companies changed between 30-40 percent. Again the same group of companies use such market entry strategies as foreign direct investment joint venturing and licensing other than exporting.

International activities of the firms were concentrated mainly on industrial sectors and then trading sector at rates of 58,3 percent and 35 percent respectively. Managers of the respondent firms believe that they should have been involved more in foreign investments and joint ventures than they actually did for becoming more competitive in the foreign markets. According to the results of the research companies defined areas they have competitive advantage as closeness to potential markets at 28 percent, availability of natural resources at 23 percent and ability to use new technologies at 22 percent.

Those firms which were involved in the research conducted import activities at 40,8 percent, contract agreements at 22,3 percent and joint ventures at 19 percent, licensing at 9,7 percent and lastly foreign investment at 4,9 percent.

Another question in the research was the number of markets in which the firms operate. 13 percent of the firms operate in only 4-7 different foreign markets, 18 percent of the firms operate in 8-11 countries, 16 percent operate in 12-15 countries, and finally 16 percent in 22 countries and more.

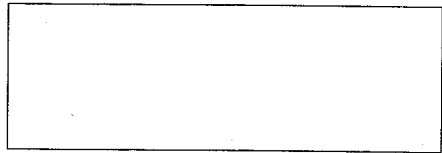
The current model of internationalization process of Turkish firms can be described in the network concept as of inward and outward movements and their crossing effect[8]. According to the model, inward looking activities will contribute in improving outward looking activities making up a network. Furthermore current relations for developing international activities will also enable corporation to gather market information, build new skills to use work procedures and relevant technology and financial tools. Industrial network approach suits in describing such relations.

The outward looking expansion dimension of the industrial network model can be best described with the marketing efforts of Turkish firms in Eastern European countries and independent Russian Republics. Turkish companies have formed 214 joint ventures in the stated markets up to 1993.[9] Therefore, today this figure probably has increased significantly since that time. Eastern European markets have been offering opportunities since the privatization of their economies in both agricultural and industrial products such as automobile parts, electrical controls, fertilizer, iron and steel pipe, wheat, machinery, chemicals and machine tools. These countries also have been seeking investments in the areas of infrastructure.[10]

Table I: Competitive Edge of Turkish Firms in Eastern Europe And Independent Russian Republics

For Turkish Firms			Products demanded by former Russian Republics and East European Countries	
Sectoral areas	Competitiveness			
Textiles	High		Cereals	
Ceramics	High		Agricultural Products	Agro machinery
Glassware	High		Glass	
Tourism	High		Wear Products	
Food Industry	"		Weather Products	
Construction	"		Construction	
Husbandry	"		Fertilizers	
Vegetable materials	"		Iron and steel	
Fishing	Medium		ceramic products	
Plastic5	Medium		Chemical	
Petro Chemicals	Medium		Automobile Spare parts	Machine tools
Tabacco	High		Household appliances	
Drinks	High			
Fertilizers	Medium			
Iron and steel	Medium			
Non Electrical Machinery	High			
Shipbuilding	High			
Paper	Medium			
Non Ferrous metals	"			

Agricultural Machineres	Medium
Electrical Machineray	Medium
Petroleum	Low
Chemical materials	Low
Electronics	Low



Source: Adapted from TÜSIAD, 21.Yüzyilda Türkiye, Istanbul 1995[11]

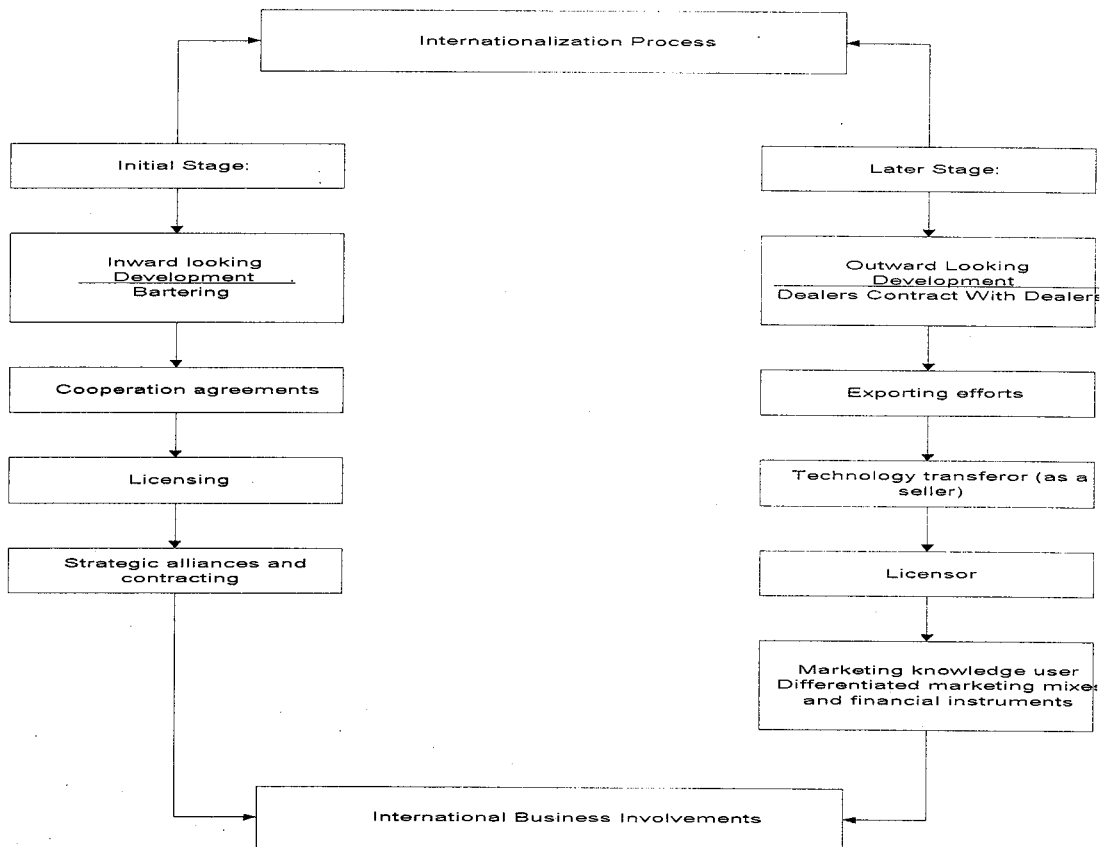
International marketing efforts of Turkish firms rely heavily on a large number of different activities ranging simply from exporting to licensing and other more penetrating involve meets such as joint venture and direct investment. An example is the arrangement of some firms to enter industrial project commitments. Another significant example is, the companies that once produced macaroni under the license agreements of other foreign firms are now capable of exporting license and selling technology abroad. They make license agreements and form joint ventures in more than 11 countries.

activities take place on the other. There is not a clear cut line between the two kinds of activities. Especially companies from developing countries that concentrate their activities mainly in the home country with licensing, technology transfer and gaining experience in the home market try to be successful in international marketing efforts. Gaining experience in market relations, using financial investments, understanding international working procedures and transactions, firms are able to look abroad for new market opportunities and business relations[15].

One approach to the internationalization process describes it as two fold[12] On one side the outward looking activities take place while inward looking

As a result of their efforts Turkish firms behave in networks that consist of information flow, sales efforts, extension to market information, financial resources, procurement and related international transactions.

Table II : Internationalization Stages of Turkish Companies Within Two Directions



Source : Adapted from Reid ( 1983) and Ayal and Zif( 1989)[13]

As can be seen in the figure, both inward and outward looking activities that have a crossing effect on the internalization process partly explain networking approach. Moreover the activities of both directions have a synergic effect on the process. In addition to firms' efforts in forming international transactions government policies regarding to structuring business relations also play an important role for structuring both inward and outward looking relationships. Agreements maintained between countries for various purposes help accelerate formations of different such international activities such as joint ventures, licensing and alliances.

International activities which took place with a slow pace until the 1970 s and early 1980 s gained momentum in late 1980 s and 1990 s. Furthermore during the last 5 or 8 years due to national and global changes in business environments companies were forced to be involved in international markets more actively. The same was true for Turkish companies too. Previously maintained project based actives and lateral agreements with companies in the neighboring countries have been widespread in a more global manner in the following years. Dramatic structural changes in the political and economic nature of the former USSR and Eastern Block Countries create new opportunities for lateral and bilateral agreements in a wide range of fields.

In a study held to determine competitiveness of Turkish firms, it has been found that the areas in which the Turkish firms are competitive have complementarities with demands of neighbor country markets[11]. This harmony in demands of different country markets and strengths and competitiveness of Turkish firms have accelerated the internationalization process.

When examined in terms of international connections and national environments, similarities as well as competitiveness of input factors, it can be clearly concluded that differentiated market entry methods and tools can be effectively used in these markets. Turkish firms have substantial potentials for developing international transaction especially in East European markets and Independent Russian Republics. This potential should not be evaluated just as export expanding activities but rather it should be considered as efforts of joint ventures, licensing and any other type of marketing activities.

## V-CONCLUSION

Business enterprises were forced to become involved in network structures in recent years due to the fact that they had to operate in global markets with a new

business management approach. This new approach requires flexibility and adaptability to changing market conditions. Organizations leaving classical management and organizational styles directed their efforts to networking. It was a must rather than a choice. Practitioners and academicians agree that this phenomenon will improve further in the coming years.

Similarly ,Turkish firms facing with international competition had to change their organization styles and they behaved as network organizations.

Medium sized companies seem to internationalize more in network structures than big and huge companies. This behavior is also true for Turkish companies. Medium sized Turkish companies develop their international activities in a network model.

These firms once entered foreign markets by importing goods and technical know-how, penetrate the same markets by selling their products and/or technology. Medium and even sometimes small sized companies involve in joint ventures and cooperative agreements in the fields such as construction, fast food, chemicals and food industry. The best examples of these international activities can be seen in East European countries and independent Republics of former Russia. International behavior or in other words, internationalization process of Turkish firms can be best described by network structures,

Turkey attempted to liberalize its economy about 20 years ago and since that time government policies have been supporting international business activities both inward and outward.

Having gained experience during that time Turkish firms have gradually internationalized their activities by becoming parts of networks. Especially in textile and food industries they differentiated their activities. A careful analysis of their background shows that they behave as if they are involved in industrial networks while the internationalization process gradually matures. Product and market mixes of the companies have approximated to mature stage during the internalization process.

Firms operating within industrial networks tend to build new market opportunities in the short and long term. Those firms that first gained experience in their home markets accelerated their activities toward foreign markets later in different forms like joint ventures. High involvement in foreign markets can be evaluated as a result of the increased knowledge and experience of the firms becoming parts of network relations.

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