

## GLOBALISATION AND STRUCTURAL OPTIONS FOR TURKISH CONSTRUCTION COMPANIES' ORGANISATIONAL DESIGN

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**Özet :** *Günümüzde, örgüt yapısının tasarlanması büyük önem taşımaktadır. Bu durum, örgütteki bütün bölümlerin ve birimlerin işleyişine etki etmektedir. Örgüt tasarımıyla sorumlu olan yöneticilerin, değişime cevap verebilecek yapılar oluşturmaları beklenmektedir. Ayrıca, yeni unsurları örgütle bütünleştirmeleri ve esnekliği sağlamaları gerekmektedir. Yöneticilerin şirketlerinin yaşlarını, büyüklüklerini, stratejilerini, çevre ve teknoloji koşulları gibi durumsallık faktörlerini gözönüne alarak örgütlerinin tasarımlarını yapmaları gerekir. Tek tip bir örgüt yapısının bütün durumlara uyması beklenemez. Türkiye'deki büyük inşaat şirketlerinde matris yapısı, takım yapısını ve şebeke türü örgüt yapısını görmekteyiz. Son zamanlarda artan uluslararası rekabetin etkisiyle, birçok inşaat şirketi dünyanın her tarafında yapılabilecek karlı işleri alabilmek için stratejilerini yeniden belirlemektedirler. Bir şirket eğer sadece yurt içinde faaliyet göstermenin ötesinde, değişik ülkelerde ve küresel ölçeklere uygun olarak çalışmak istiyorsa, yapısal uyum için çaba göstermelidir. Örgütün değişik faaliyetlerde bulunması varolan yapılarla farklı bir baskı uygulayacaktır. Yeni atımlarda başarılı olabilmek için örgüt yapılarında düzenlemeler gerekmektedir. Türk inşaat şirketleride yurt içinde ve dışında faaliyetlerini başarıyla sürdürmektedirler.*

### I. INTRODUCTION

A complex and rapidly changing environment increases the need for differentiation and integration in an organization. In a complex environment managers must create highly specialized departments to develop expertise and handle environmental uncertainty. Increased integration is necessary because, frequent change requires more information processing and adjustments within and across departments. Organic designs were discovered to be more appropriate in an unstable environment. Tasks are completed through group efforts and are adjusted and redefined to cope with demands made by the changing environment. Decision making is carried out by those close to the task, since they have a more immediate understanding of problems. Communication is primarily horizontal as members exchange information about adjustments in tasks and changes that have occurred in the environment. In Turkey, big construction companies are

working in an unpredictable environment. All managers must deal with managing change and managing conflict.

### II. GLOBAL ORGANISATIONS and STRUCTURAL OPTIONS

In these days of increasing international competition, many organizations are strategically positioning themselves to take advantage of opportunities around the world. An organization that desires to move beyond a purely domestic orientation to operate on a multinational or even a global scale will confront the need for structural adaptation. This is because the new orientation will require the organization to engage in new activities which will put differentiation pressures on existing structures. A functionally structured organization that merely wants to market its products or services abroad, or wants to take advantage of low cost labor to produce products for home markets, will generally form a new department to handle the details of import and export, usually by subcontracting with experts in the markets in which the organization wants to be involved. At this stage the organization is really not international in its focus, but rather remains committed to the logic of its domestic business. As experience with international markets accumulates, the organization will typically become aware of opportunities abroad and become more experienced in addressing the opportunities, at least in one or a few of its foreign locations. At this point many of the activities that were originally subcontracted will be brought in-house and an international division will be formed. The matrix form structure adopted at this stage allows the organization to maintain essentially a multi-domestic orientation. That is, it acts like a firm operating domestically in several markets at once, a bit like a conglomerate does in relation to operating in several industries at the same time. Finally, the multinational corporation (MNC) appears. This comes about as international sales becomes the main source of organizational revenues and as suppliers, manufacturers, and distributors from a variety of countries form an interdependent inter-organizational network on a truly international level. No longer can the activities of the firm be separated into either domestic or international units, and the international division is replaced by an internationalized product or geographic matrix-form

structure in which all units engage in the coordination of international activities. As with conglomerate matrix-forms, an organization can achieve a multinational structure either through international growth, generally progressing through the stages described above, or through joint-venture, merger, and/ or acquisition.

## II.1. The Matrix Structure

The matrix structure has evolved in the flow of as a space technology, changing conditions have caused managers to create new relationships of established organizational concepts and principles. A matrix organization is used to establish a flexible and adaptable system of resources and procedures to achieve a series of project objectives. From a divisional organization structure has emerged a new way of thinking and working to create products dependent upon advanced research and urgency for completion. Time and technology factors forced a more efficient utilization of human talents and facilitating resources. Matrix and project designs are employed in large organizations whose work is diverse, complex, and often highly technical. The designs found widely in the aerospace industries, for example, as well as in manufacturing firms where major project structures typically take the matrix form. Although matrix organization is not limited to the purpose of combining project and functional structures, it does provide a good way to do so, and to overcome the disadvantages of using either type alone. If project organization is used, technologies are likely to be less developed. If functional structure is employed, important projects may suffer for lack of focused coordinated attention. Matrix design attempts to secure the benefits of both [1]. The traditional divisional type of organization permits a flow of work to progress among autonomous functional units of a specific division. A division manager is responsible for total programs of work involving the products of his division. In a matrix organization, the divisional manager has the same responsibility, authority, and accountability for results. Differences occur in the division of work performed as well as in the allocation of authority, responsibility, and accountability for the completion of work project. A matrix type of organization is built around specific projects. A manager is given the authority, responsibility, and accountability for the completion of the project in accordance with the time, cost, and quality and quantity provisions in the project contract. The line organization develops from the project and leaves the previous line functions in a support relationship to the project line organization. Matrix and project structures are designed less around positional authority and more around who has the relevant information and the special skills required for particular, non-routine missions or projects. In large firms undertaking large and long-range projects, project managers are designated to see a project to its completion. When the mission is completed, members of the project

team are reassigned. Organization in such a firm, therefore, consists of setting up a number of project groups and administering them through the various stages of their existence. The project manager and his group have specific objectives and clear terminal point. Such a group does not fit readily into traditional models of organization, although many of the management precepts it adopts are similar.

The project manager is assigned the personnel with the essential qualifications from the functional departments for the duration of the project. Thus the project organization is composed of the manager and functional personnel groups. With responsibility and accountability for successful completion of the contract, the project manager has the authority for work design, assignment of functional group personnel, and the determination of procedural relationships. He has the authority to reward personnel with promotions, salary increases, and other incentives while the project is in progress. He also has the authority to relieve personnel from the functional group assignments. Upon completion of the project, the functional group personnel return to the functional departments for reassignment, or transfer to other divisions or training programs to develop their skills and knowledge. The project manager is also available for reassignment by the division manager or company president.

The most useful definition is based on the feature of a matrix organization that most clearly distinguishes it from conventional organizations. That is its abandonment of the age-old precept of "1 man-1 boss" or a single chain of command in favor of a "2 boss or multiple command system. Matrix organization employs a multiple command system that includes not only a multiple command structure but also related support mechanisms and an associated culture and behavior pattern [2].

The matrix organization is suitable for an environment that is highly unpredictable. It is hard to imagine another organizational structure that could work as well [3]. The matrix organization also can be modified for stable environments. A number of colleges of business and management now employ a modified version [4]. The matrix form has proved to be very successful in providing the simultaneous structural flexibility and complexity needed to cope with the demands of a high-technology setting including universities, corporations, public institutions, foundations, and hospitals.

Many organizations are experiencing pressures that force them to consider various forms of matrix designs. The most common pressure is increased volume of new products. Organizations facing this situation must either adopt some form of matrix organization, change to product forms of organization, or increase the time

between start and introduction of the new product process. For most organizations, the matrix design is the most effective alternative. Managers must be aware of the different kinds of matrix designs and develop some basis for choosing among them [5].

The matrix response to manifold pressures on various profits, to the over complexity of divisional structures. In fact matrix structure is in tune with today's realities. On the other hand, it virtually always ceases to be innovative, often after just a short while. It has particular difficulty in executing the basics (the authority structure is uniquely weak). It also regularly degenerates into anarchy and rapidly becomes bureaucratic and less creative. The long-term direction of the matrix organization is usually not clear [6].

### **II.2. The Global Matrix**

There are managers of geographic regions and of products, or product groups, such that local units are organized both by interests in corporate effectiveness related to serving a particular region of the world and by interests in developing the corporation's knowledge and efficiency in regard to production across regional markets. Each of the local units can be fully operational companies in their own right, and the array of these units that comprises the multinational corporation may be a mixture of simple, functional, divisional, matrix, or hybrid structures. Obviously, a major drawback of this structure is its enormous, often mind-boggling complexity. Even with electronic communication and rapid transportation between most destinations the coordination problems of the global organization stretch the concept of structure to the limits of modernist conceptions. As complexity increases through demands for attention to more than the two dimensions representable in this structure (e.g., regions, products), the fragmentation and incoherence about which postmodernists write becomes increasingly helpful [7].

### **II.3. The Hybrid Structure**

The structures above represent pure types. Organizations will not always conform to one of these. Hybrid structures are partly one type of structure and partly another. Hybrids may occur either because designers deliberately mix forms in an attempt to blend the advantages of two or more different types, or because the organization is changing. For example, a research and development division may move to a matrix structure, while other divisions remain functionally structured. Network structures and multinational organizations may also appear to be hybrids. Hybrid forms can be confusing in that the basis of relationships changes as you move from one part of the structure to another. On the other hand, the hybrid form allows the organization the

flexibility to adopt the structure most appropriate to the varied needs of its different subunits.

### **II.4. The Team Structure**

The team structure is the newest, and the potentially most powerful approach to organizational structure. This structure involves organizing separate functions into a group based on one overall objective. The team structure, in effect, takes direct aim at traditional organizational hierarchy-whether functional, divisional or matrix-and flattens it. Although the vertical chain of command is a powerful control device, proposed decisions must move up the hierarchy for approval-a process that often takes too long. Such an approach also keeps decision making and responsibility at the top. Throughout the business sector, a significant trend in the 1990s is delegation, pushing authority and accountability down to lower levels and creating teams of workers who take credit for their work. In a team structure, departments are based on teams rather than functional specialty. Team members representing different functions are grouped together. Several such teams report to the supervisor. Although there are variations of the team concept-some teams are responsible for a product, others for a process-the result is the same. The traditional functions are reorganized, layers of management removed and, the company becomes decentralized. The team concept breaks down barriers across departments because; people who know one another are more likely than strangers to compromise. The team structure also speeds up decision making and response time. Decisions no longer need to go to the top of a hierarchy for approval. Employees are strongly motivated. They take responsibility for a project rather than for a narrowly defined task, and the result is enthusiasm and commitment. Decentralization of authority is accompanied by the elimination of levels of managers, and the result is lower administrative costs. Finally, team structure is an improvement over the matrix structure in that it does not involve the problem of double reporting. Each worker believes he or she is a part of a team rather than an individual who performs a designated function [8].

### **II.5. Global Work Teams**

The reality of today's business world as a global work environment has led some companies to establish global work teams to expand their products and operations into international markets [9]. Global teams, also called transnational teams, are work groups made up of multinational members whose activities span multiple countries. Global teams have been used in various ways. Some, such as help organizations achieve global efficiencies by developing regional or worldwide cost advantages and standardizing designs and operations. Other global teams help their companies be more locally responsive by meeting the needs of different regional

markets, consumer preferences, and political and legal systems. A third primary use of global teams is to contribute to continuous organizational learning and adaptation on a global level [10]. The most advanced use of global teams involves simultaneous contributions in all of these strategic areas.

Global work teams bring unique problems to the concept of teamwork. Team leaders and members must learn to accommodate one another's cultural values and backgrounds and work together smoothly, usually in conditions of rapid change. One model for global team effectiveness, called the GRIP model, suggests that teams focus on developing common understanding in four critical areas: goals, relationships, information, and work processes, thus enabling the team to "get a grip" on its collaborative work at a very high level. The need for and use of global work teams is likely to grow. Teams that effectively blend their varied backgrounds and interests into a teamwork culture focused on serving the organization's international goals can significantly enhance a company's global effectiveness [11].

## II.6. International Strategic Alliances

Strategic alliances are perhaps the hottest way to get involved in international operations. Typical alliances include licensing, joint ventures, and consortia [12]. Manufacturing firms to capitalize on the diffusion of new technology quickly and inexpensively while getting the advantage of lucrative worldwide sales frequently enters into licensing agreements. Joint ventures are separate entities created with two or more active firms as sponsors. This is another approach to sharing development and production costs and penetrating new markets. Some managers decide that the best way to expand abroad is through joint ventures or strategic alliances. Strategic alliances are cooperative agreements between potential or actual competitors. A joint venture is one example of a strategic alliance. A joint venture is "the participation of two or more companies jointly in an enterprise in which each party contributes assets, owns the entity to some degree, and shares risk." Companies use such relationships every day. Alliances have many advantages. The overriding aim is usually to quickly gain some complementary strength that would otherwise take too long to develop [13]. Further, as one manager points out, "in a complex, uncertain world filled with dangerous opponents, it is best not to go it alone"[14]. A joint venture lets a firm gain useful experience in a foreign country, using the expertise and resources of a locally knowledgeable firm. Joint venture lets a firm gain useful experience in a foreign country, using the expertise and also helps both companies share what may be substantial cost of starting a new operation. But as in licensing, the joint venture partners also risk giving away proprietary secrets, and joint ventures also almost always mean sharing control. Each partner runs the risk that the venture

may not be managed the way it would have chosen. Joint ventures can be a necessity. It is estimated that the rate of joint-venture formation between Turkey and international companies has been growing annually since 1982. Joint ventures may be with either customers or competitors. A manufacturer may seek a joint venture to distribute its new technology and products through another country's distribution channels and markets. Given the expertise of new technology, consortia of organizations are likely to be the wave of the future. Rather than one-on-one competition among individual firms, groups of independent companies-suppliers, customers, and even competitors-will join together to share skills, resources, costs, and access to one another's markets. Managers must learn to cooperate as well as compete [15]. Consortia are often used in other parts of the world, such as corporations in Japan. A type of consortia, called the virtual organization, is increasingly being used in the United States and offers a promising avenue for worldwide competition in the future. The virtual organization is a continually evolving group of companies that unite to exploit specific opportunities or attain specific strategic advantages and then disband when objectives are met. A company may be involved in multiple alliances at any one time. Some executives believe shifting to a consortium or virtual approach is the best way for companies to remain competitive in the global marketplace.

## II.7. The Network Structure

Another major trend of the 1990s is the choice companies are making to limit themselves to only a few activities that they do extremely well and let outside specialists handle the rest. These network organizations, sometimes also called modular corporations, are flourishing particularly in fast-moving industries, such as apparel and electronics, but even companies in such industries as steel and chemicals are shifting toward this type of structure [16]. Formal networks differ from teams or cross-functional task forces [17]. The dynamic network structure incorporates a free market style to replace the traditional vertical hierarchy. The free market aspect means subcontractors flow in and out of the system as needed. Much like building blocks, parts of the network can be added or taken away to meet changing needs [18]. An organization arranged in network structure relies on other organizations to perform critical functions on a contract basis. A company keeps key activities in-house and then outsources other functions, such as sales, accounting, marketing, manufacturing, and engineering to separate companies or individuals who are coordinated or brokered by a small head-quarters [19]. In most cases, these separate organizations are connected electronically to a central office [20]. Now, the network design is developing and it requires state-of-the art technology in communication systems. In the traditional corporation, particularly those with functional, divisional, hybrid, and

matrix designs, there is a vast infrastructure with several reporting levels and internal structures. The network design is very different, because it relies on a small central organization to coordinate the principal functions of distribution, marketing, research and development, manufacturing, and other essential functions performed in other organization [21]. The network structures, provides flexibility because only the specific services needed are purchased. Administrative overhead remains low because large teams of staff specialists and other administrative personnel are not needed. The major shortcomings of this type of structure is, lack of control. The management core must rely on contractors. This limitation can be minimized, if management is willing and able to work closely with the suppliers. But the reliability of supply is less predictable than it would be if the company owned the means of supply. If a supplier fails to deliver, goes out of business, or suffers a plant breakdown, the central hub of the network is endangered. Also, if an organization relies on contract work, central managers may lack technical expertise to resolve problems effectively [22].

Organizational networks are also increasingly important in international trade [23]. The advantages of the dynamic network structure are several. The structure is unbelievably lean, with almost no administrative overhead because work activities are contracted and coordination is electronic. The approach can help new entrepreneurs get products to market quickly without having to incur huge start-up costs. In mature industries that are beginning to stagnate, the network structure can reinvigorate companies by enabling them to develop new products without huge investments. Another significant advantage of the network approach is its flexible; rapid response-the ability to arrange and rearrange resources to meet changing needs and best serve customers. Managerial and technical talent can be focused on key activities that provide competitive advantage, while other functions are outsourced [24]. The disadvantages are related to the unusual nature of this organization design. For one thing, there is little hands-on control. Operations are not under one roof, and managers must adjust to relying on independent subcontractors to do the work. Companies can experience problems with quality control when many different subcontractors are involved. In addition, some companies have found that subcontractors tend to dramatically raise prices once the company becomes hooked on their products or services [25]. Moreover, it can be difficult with a network structure to define the organization, since it may change from week to week as the set of subcontractor's changes. Likewise, the organization can occasionally lose a part if a subcontractor defects or goes out of business and can't be replaced. A final disadvantage is weakened employee loyalty. A cohesive corporate culture for the larger organization is difficult to establish. Turnover tends to be high, because employees are committed only to their own

task or subcontractor, and they may be dismissed at any time in favor of a new contractor.

## II.8. The Integrated Structure

As environment become more unpredictable and dynamic, organizations must become more organic. This implies a movement from a functional to a project, matrix, hybrid, or other relatively organic structure. Firms must become more competitive by responding directly and immediately to their customers' needs, as well as by offering clients new products and services [26]. The "integrated structure" has the characteristics of a matrix structure, including flexibility, adaptability, and decentralized decision making, combined with an emphasis on client needs, product development, and product marketing. However, the form will vary from the pure matrix depending upon the integration of the functional areas. An integrative structure goes beyond a matrix in its flexible grouping of employees and its strong market-driven orientation. An integrated structure has the following characteristics:

- Flexible grouping of individuals (i.e., the ability to take a functional, product, project, geographical, or client orientation),

- Market-oriented grouping of individuals (i.e., focus on clients, products, or projects),

- Decentralization of decision making (i.e., increased autonomy for middle managers and experienced staff),

- Smaller offices seem to facilitate integration [27].

- Grouping across divisions (i.e., management services division into work groups),

- The development of task forces that include members of various divisions. Such task forces might focus on the development of new services or the quality control of existing services,

- The introduction of permanent committees. Such committees could be charged with product development and implementation responsibility: the specification of a project-based structure that focuses on short-term client needs, and,

- The introduction of a matrix structure, using functional specialty as one dimension, and client industry, client business size, geographical location, or product as the second dimension.

Successful integrative structures are these allow a firm to expeditiously bring together all its sources and

expertise. The successful firm will be the one that heightens the client's awareness regarding the firm's full line of services and the benefits that will accrue. The flexibility, creativity, and fluidity of implementation of an integrative structure make considerable sense for successful firm.

### III. THE IMPACT OF GLOBALISATION ON COMPANIES

Going global- doing business outside one's home country through integrated operations-means dealing with political, legal, sociocultural, economic, and technological environments that are unfamiliar and unique. Globalization forces companies to deal more effectively with diversity and particularly with a more diverse workforce. Globalization requires that managers think beyond national borders and see all world markets as part of one global economy. As a result, the kind of managers needed to staff foreign and home-office operations will change. Their education and experience should prepare them to live and work in those countries or cultures in which they will do business. Marketing, production, finance, and all other business functions will change, taking on a flavor and style appropriate for the foreign environment. The movement of goods, money, and people across borders regularly calls for skills the company may not ordinarily possess. Stakeholders' interests must be protected from the threats posed by foreign governments and environments. Globalization means change. It also means a drive among businesses to achieve world-class products and services with competitive quality and productivity. Intense competition from abroad has caused Turkish construction companies create partnerships with foreign firms, and spend billions on training. The most important reason for expanding globally is that it provides a powerful additional source of growth.

### IV. TURKISH CONSTRUCTION COMPANIES' ORGANISATIONAL DESIGN

In organizations that operate with balance of power form, there is a constant tendency toward organization tries to maximize its own advantage vis-à-vis others, there will be a continual balancing struggle for dominant power. A power struggle in a matrix is qualitatively different from that in a traditionally structured hierarchy because, in the latter it is clearly illegitimate. In the matrix, however, power struggles are inevitable, the boundaries of authority and responsibility overlap prompting people to maximize their own advantage. The confusion of matrix behavior with group decision making probably arises from the fact that a matrix often evolves out of new project or business team, which do suggest a group decision process. Under many circumstances, it is perfectly sensible for managers to make decisions in-groups. But, managers must be aware of the danger of severe groupies. The other problem,

Turkish construction companies face, the fear of high costs associated with a matrix. The matrix organization would seem to double management costs because of its dual chain of command. This issue deserves thoughtful consideration. In matrix organization, increased communication creates a new set of problems. More differences are surfaced and they have to be dealt with. These differences are resolved with people from different functions who often have different attitudes and orientations. Top managers quickly become overloaded when too many decisions are passed to them and the matrix ceases to work. In a matrix this conflict can be healthy and that higher quality solutions will develop if people with different expertise and orientations relating to a given task get together to trash out differences. It is assumed that everyone is working toward common goals and that each is concerned with arriving at the best solution to the problem. Given the constraints of the situation if sufficient information is brought out in the discussion, the best possible solution will emerge. In Turkish construction companies that are working as joint ventures, conflict emerges mostly between individuals. Top managers try to resolve or eliminate conflict. Conflict must be effectively managed for an organization to achieve its goals as soon as possible. Before it can be managed, conflict must be acknowledged and defined by disputants. It may be difficult, however, for disputants to agree on what is in dispute in a shared conflict since they may experience the same conflict in quite different ways [28]. This is not to suggest that objective reality does not exist, only that disputant' subjective experience is their reality and thus determines the nature of the conflict for them [29]. Conflict exists, and managers will need to determine their own personnel response when they find their selves in such a conflict [30]. Some conflict is useful, since it gives people an opportunity to examine problems and solutions that would otherwise ignored. Other conflicts are dysfunctional; they cause hostility and resentment, and organization functioning may be stymied as a consequence. Conflict can't and probably should not be eliminated completely. Some dysfunctional conflict can be tolerated if it is relatively minor [31]. The effort to resolve such conflict may greatly exceed the benefits of doing so.

### V. CONCLUSION

The matrix organization has been proposed and used as a way of combining the benefits of functional and project structures while reducing their shortcomings. By adapting a matrix structure, an organization does not choose one grouping over another, but rather it chooses both. This structure responds to the need for greater flexibility in an organization and is particularly effective in an organization that has a dynamic, complex and uncertain environment, and professional employees. It combines both the functional and project structures by reinforcing a professional identity and development while

encouraging interaction with other departments and creating a strong problem solving and goal focus. These advantages can lead to three types of problems; (1) high overhead costs result from the increase in managerial salaries because of the doubling of managers; (2) conflict may occur between functional and project managers over allocation of their common subordinates' time or quality of subordinates performance; and (3) employees may experience ambiguity about whether their functional or project manager has authority or predominance in assigning work, setting priorities, and evaluating performance.

The only way a Turkish construction company can really be certain of its competitive position in this global market is to be able and prepared to compete with its foreign competition on their own turf as well as in other world markets. In Turkey, the matrix organization is used mostly in construction companies. Turkish construction companies work as joint ventures with French, Italian, German, British and Japanese companies in different countries. They use global matrix organization. The results of the interviews with managers show that, Turkish construction companies have big projects in Russia, Rumania, Bulgaria, and Turkish Republics and in other countries. Matrix structures used by multinational corporations are similar, except that geographical distances for communication are greater and coordination is more complex. Indeed, the continued use of matrix design suggests that it does help construction companies in their effort to satisfy the two masters: specialization and coordination. They violate the unity of command and the chain of command. They can weaken vertical coordination while trying to improve lateral coordination. In spite of its limitations, the matrix structure seems to offer some advantages for construction companies. First, it can improve the development and utilization of personnel; the organization assigns individuals to project teams who best fit with the project's need at a given time. Second, while providing a stable functional organization, the matrix can improve the firm's provision of client services by encouraging industry specialization, technical specialization in such areas as computer services. Third, the matrix structure has been shown to be highly correlated with high rates of new product innovation. Finally, the matrixes can expertise to clients. The matrix organization is suitable for an environment that is highly predictable; in fact, it is hard to imagine another organizational structure that could work as well.

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