

## UNDERSTANDING THE MANAGEMENT AND LEADERSHIP CULTURE OF THE INNOVATIVE AUTOMOTIVE COMPANIES

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### ABSTRACT

*Management and leadership styles and approaches have always been important for business and management literature. The dominance of management and leadership on companies' success or failure has been highlighted and investigated by important amount of studies in existing literature. This study investigates the management and leadership culture type of sample innovative companies from automotive industry by applying 'competing values framework assessment'. This study also identifies the culture types of other dimensions of organizational culture and provides a consolidated view. The results demonstrated the dominance of market culture which fosters competition among the members of the organization and success oriented. On the other hand, hierarchy culture has considerable existence in the 'management of employees' dimension of the organizational culture. All four culture types' existence levels are also represented in the study for all dimensions of organizational culture.*

**Keywords:** : Business Administration, Management of Technological Innovation and R&D, Personnel Management, Corporate Culture.

**JEL Classifications:** M10, O32, M12, M14.

## YENİLİKÇİ OTOMOTİV ŞİRKETLERİNİN YÖNETİM VE LİDERLİK KÜLTÜRÜNÜ ANLAMAK

### ÖZET

*İşletme ve yönetim literatürü için yönetim ve liderlik stilleri ve yaklaşımları her zaman önemli olmuştur. Şirketlerin başarısı veya başarısızlığı üzerindeki yönetim ve liderliğin baskınlığı, mevcut literatürdeki önemli çalışmalarla vurgulanmış ve araştırılmıştır. Bu çalışma, otomotiv endüstrisinden yenilikçi görülen örnek firmaların yönetim ve liderlik kültürü türlerini "rekabetçi değerler çerçeve değerlendirmesi" uygulayarak incelemektedir. Bu çalışma, örgütsel kültürün diğer boyutlarının kültür türlerini de tanımlamakta ve konsolide bir görüş sunmaktadır. Sonuçlar, organizasyon üyeleri arasındaki rekabeti teşvik eden ve başarı odaklı pazar kültürünün baskınlığını göstermiştir. Öte yandan,*

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#### **Makale Geçmişi/Article History**

Başvuru Tarihi / Date of Application : 12 Haziran / June 2019

Düzeltilme Tarihi / Revision Date : 19 Aralık / December 2019

Kabul Tarihi / Acceptance Date : 20 Ocak / January 2020

*hiyerarşi kültürü, örgüt kültürünün 'çalışanların yönetimi' boyutunda önemli bir varlığa sahiptir. Çalışmada, dört kültür türünün varoluş düzeyi de örgütsel kültürün tüm boyutları için gösterilmektedir.*

**Anahtar Kelimeler:** İşletme, Teknolojik Yenilik ve Ar-Ge Yönetimi, Personel Yönetimi, Kurum Kültürü.

**JEL Kodları :** M10, O32, M12, M14.

## 1. INTRODUCTION

In recent years, many companies now see the whole world as their target market. This has forced businesses to be more competitive in order to remain on the market. Businesses have needed to do more to protect and improve their current market share. This has required the implementation of more effective business strategies. There has been more to focus other than cost or production effectiveness. Meeting customer expectations consistently has become even more important to remain competitive. Companies have focused on delivering the latest innovations to the market before other companies do (Thuengnaitham, 2016). To be able to work successfully in any business environment, it is important that you understand the values that guide and support the cultures of that environment. Also, to be able to produce new ideas and transform them into successful proposals which will bring business success, requires the suitable organizational culture led by appropriate management and leadership. It is beneficial to understand the management and leadership dimensions of an organizational culture and their relationship with the other main dimensions of the organizational culture.

In order to figure out their management and leadership culture type and organizational culture type from the 'competing values framework' point of view, we applied this tool for the organizational culture assessment on the companies in our scope, which exists of the three companies in the automotive industry from Europe, having success in their markets by their innovative production approaches. They are motor vehicle producers and vehicle part supplier. They are big exporters in their areas, too. Since, these specialties can be defined as business success, we have chosen these companies.

Our research questions can be described as below:

- What degree of these culture types exist in the companies' management and leadership culture?
- Which culture types are dominant in all 6 dimensions of organizational culture?
- Which culture type is dominant among the four culture types of 'competing values framework'?
- Is there a correlation with the type of the cultures between the dimensions of the organizational culture?

This study answers these questions by the organizational culture assessment relying on first-hand data from the members of these companies, which are senior professionals and senior managers. The outputs of all organizational culture dimensions were considered to understand if any cultural dimension is in a correlation with the ‘management of employees’ and ‘organizational leadership’ dimensions.

## **2. LITERATURE REVIEW**

There are several factors affecting the innovation outputs of the organizations. We can categorize these factors as ‘internal’ and ‘external’. ‘Internal’ factors can be controlled by organizations in some way. Organizations can take actions to improve these internal factors (Okatan and Alankuş, 2017). The most important elements of the internal factors can be highlighted as management and leadership style, degree of risk taking and organizational culture of the organization. Undoubtedly, these elements have an impact on the organization's innovation efforts. However, the effects of these elements on innovation studies have different degrees. Since organizational culture affects employees' behaviors, organizational climate, attitudes and beliefs, participation in decisions, harmony and solidarity, it is also closely related to innovation studies (Özdemir and Sönmez, 2018).

Culture is a stable, conservative, and resilient force that can only change with management intervention (Hatch, 2004). The role of leadership in this model was built on the premise that the cultures were stable until the leaders tried to change it (Schein, 1992). However, this action has been considered as a "priority task" to create a strategy and structure to bring out the innovative potential. The result of this movement will be several innovative core values in organizational culture. Therefore, the leadership is central to create a culture that supports innovation. Organizational culture leads the organization to an innovative cultural orientation. Organizational culture has an influence on the degree of creativity and innovation in an organization (Ismail and Abd Majid, 2007).

It has been shown that 20 to 50 percent of the performance difference between organizations in the same sector is culture. Nevertheless, although there have been in-depth studies examining which aspects of organizations affect culture, the majority of the gaps in the literature have not been filled as to how leadership style can improve culture for innovation (Dodge, Dwyer, Witzeman, Neylon and Taylor, 2017).

The relative importance of the three most important leadership dimensions for innovation - institutional incentives, challenging work and working group support - varies depending on the culture of the organization. Sustainable innovation is necessary for the companies those want to remain profitable and competitive. It is very important to define the relationship between innovation and business performance. The link between innovation and business performance is addressed in the current literature as a direct or as a part of broader research. The results suggest that there is a close relationship between innovation and business performance. There has been clear evidence that innovation has had considerable effect on long-term profitability and growth in companies (Neely and Hii, 1998).

Dixit and Nanda (2011) mentioned the outstanding effect of leadership, especially on innovation and creativity in the organizational culture by highlighting that, 'it is the task of organizational leaders to provide the culture and climate that nurtures and acknowledges innovation at every level' and also, they are 'supervisors who provide encouragement of creativity by valuing individual's contributions and showing confidence in the work group'. The literature highlights three main factors of group characteristics and key issues of them for us to understand the effect of organizational culture on business success. In the same study, (Dixit and Nanda, 2011) mentioned the importance of leadership and management by revisiting the importance of 'selecting and motivating the right employees' based on the outstanding studies from the literature:

- Recruitment, selection, appointment and maintaining employees are an important part of promoting a culture of creativity and innovation in an organization.

- The values and beliefs of management are reflected in the type of people that are appointed.

As a result of researches conducted with executives at different levels on companies of different sizes and ages who have carried out radical innovation in the advanced technology industry, it has been determined that culture, mentality, strategic management and leadership play a decisive role in the entrepreneurial tendency of the firm and that organizations carrying these trends can realize radical innovation. On the other hand, the role of internal entrepreneurship in the realization of radical innovation in small firms was investigated and it was found that internal entrepreneurship played an important role in the firms carrying out radical innovation. In this study, it was found that proactivity, risk-taking, and autonomy were particularly important in achieving radical innovation. It was also found that there was more internal entrepreneurship especially in highly innovative firms (Kayalar and Arslan, 2016).

The automotive industry is in a relentless competition for the continuous restructuring of communications systems into more agile, flexible and secure systems. The competitiveness of automobile manufacturers is increasingly dependent on their network of specialized suppliers and distributors, their ability to drive with agility and efficiency, and their innovation capacity plays a major role (Vaz, Rauen and Lezana, 2017). The automotive sector and innovation have become an integral part of each other, especially in recent years. The fact that software (electric autonomous vehicles, etc.) occupies an important place in the existing automotive infrastructure and is the catalyst of innovation in this sector is also a major factor.

There are many publications on automotive industry and innovation relationship in existing literature. One of the recent ones explored the direct and indirect effects of organizational culture, knowledge management, and organizational learning on innovation by using data from 279 companies supplying auto parts to the Iranian Khodro Company and found that organizational culture and knowledge management affect organizational innovation. In addition, organizational learning has

played an important role as mediator in this relationship. The study examined organizational culture within the competing values framework (Abdi, et al, 2018).

## 2. METHODOLOGY

The research methodology is constructed on identifying the general organizational cultures of the companies. Questionnaire method was used for collecting the relevant data in the research. In accordance with the aim of the research, the ‘organizational culture assessment tool’ which is the instrument of the ‘competing values framework’ was used. It is an accepted tool for the assessment of organizational culture by the literature and accepted from the accuracy and reliability point of view.

Data were collected by web survey method. 5-point Likert-type expressions were used in the scale in the study. The respondents were informed that the data would be used only for scientific purposes and would not be shared with third parties prior to the survey application and the evaluation was aimed to be conducted in a comfortable and realistic manner. In line with this commitment, the names of the participants and institutions were not shared in the research.

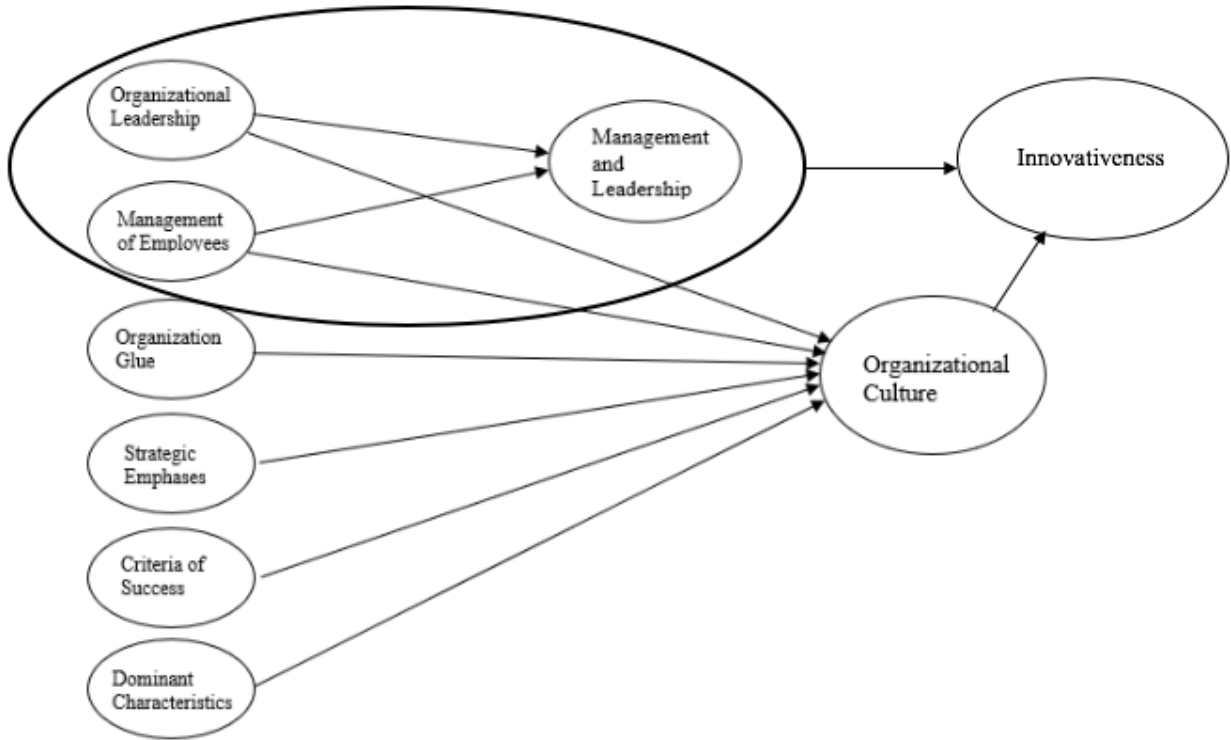
General organizational culture is the average output of the six main dimensions of ‘competing values framework’, which are Criteria of Success, Dominant Characteristics, Management of Employees, Organization Glue, Organizational Leadership and Strategic Emphases. The Competitive Values Framework was originally developed from research into the main indicators of effective organizations.

The framework was constructed to examine:

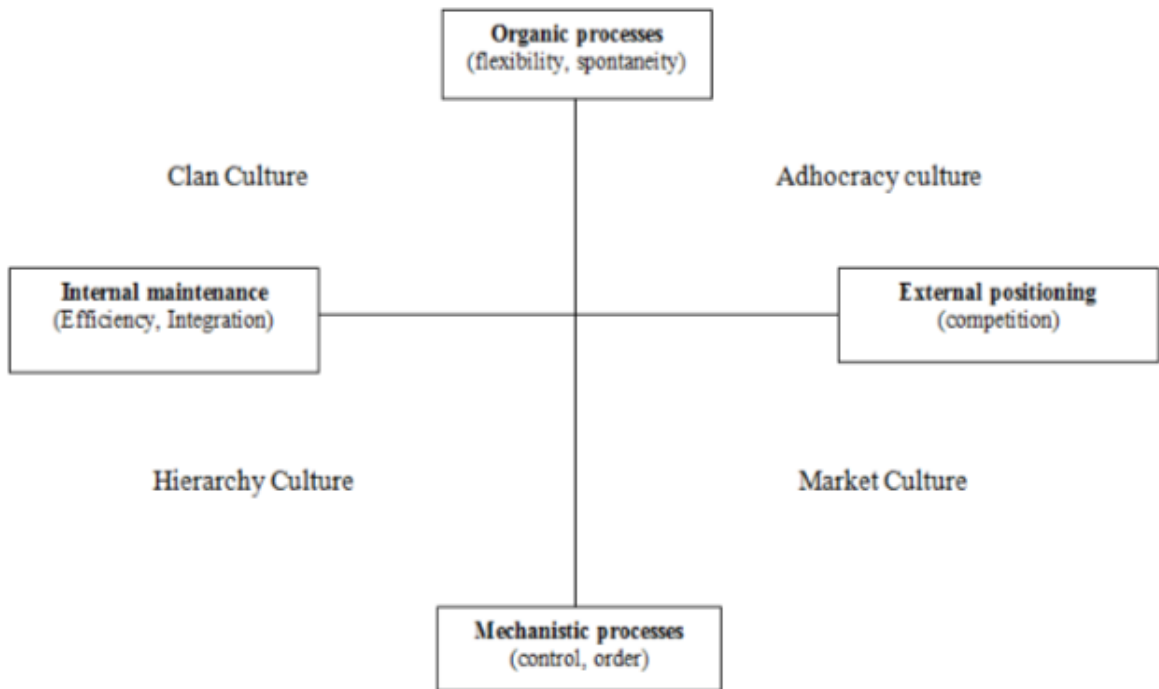
- The main criteria for determining if an organization is effective or not
- Key factors those define organizational effectiveness
- Judgement of an organization to be effective or not (indicators for decision) (Cameron and Quinn, 2005)

Our research methodology is designed to determine both the type of management and leadership culture and the type of general organizational culture. The existence of all four culture types within the framework of competitive values will be measured and the dominant culture type will be determined accordingly. On the other hand, the dominant type of management and leadership culture and the dominant type of general organizational culture will be compared and any correlation will be determined. Figure 1 demonstrates the research model.

**Figure 1. Research Model**



**Figure 2. Types of Organizational Culture in the Competing Values Framework**



Source: Herzog and Leker, 2010

Competing values framework is constructed on four organizational culture types as demonstrated in figure 2:

Market Culture is an external focused culture which includes control processes, dominantly. Success is based on goal achievement and competition in this culture type. It is expected to reach more productivity by the competition among the employees. Generally, challenging business targets are assigned to employees, in this culture. Organizations with this culture, aim to have more market share by the achievement of these targets. The ultimate goal is to dominate market.

Clan Culture takes care of the improvement of the collaboration between employees. Commitment and motivation of the employees are important in this culture. Success is based on the human development and cooperation. This culture doesn't put short term monetary targets in the first place. Long term commitment of the employees is more important for the success of the organization. Clan culture is a culture with flexible processes focusing on internal maintenance.

Hierarchy Culture dominantly consists of formalized rules, procedures and policies. It is believed to have a successful organisation with a strongly structured management and processes. Efficiency is much more important than the other culture types for hierarchy culture. Business and processes must be stable, predictable and efficient. Hierarchy culture puts concentration on internal maintenance with control processes.

Adhocracy Culture encourages entrepreneurship and creativity. Flexibility and freedom are much more supported in this culture than the other three of them. Unique production, invention of new products and services are much important. Success is based on creativity, positive change and finding new ways to do business (Herzog and Leker, 2010).

### **1.1. Data Scope**

As of 2017, total passenger car production in the world is 74 million units. China alone accounts for about 25 millions of this production. European geography 's (also including non-EU members like Turkey, Russia and Serbia) passenger car production is around 20 million units. Passenger car production in the European region accounts for 27% of the world's total.

The sample of this research is about 10% of the production in the European region. We have been able to collect 71 appropriate responses from four companies. All companies are considered as innovative companies in their sector with their outstanding integration of software to production, that provides them a competitive advantage by production efficiency. These four companies have come to the forefront with successful research and development processes and innovations. All respondents are professionals from research and development or management departments with tenure of more than two years, who can comment on their companies' management and leadership cultures.



**Table 1. Highlights of the Sample Companies**

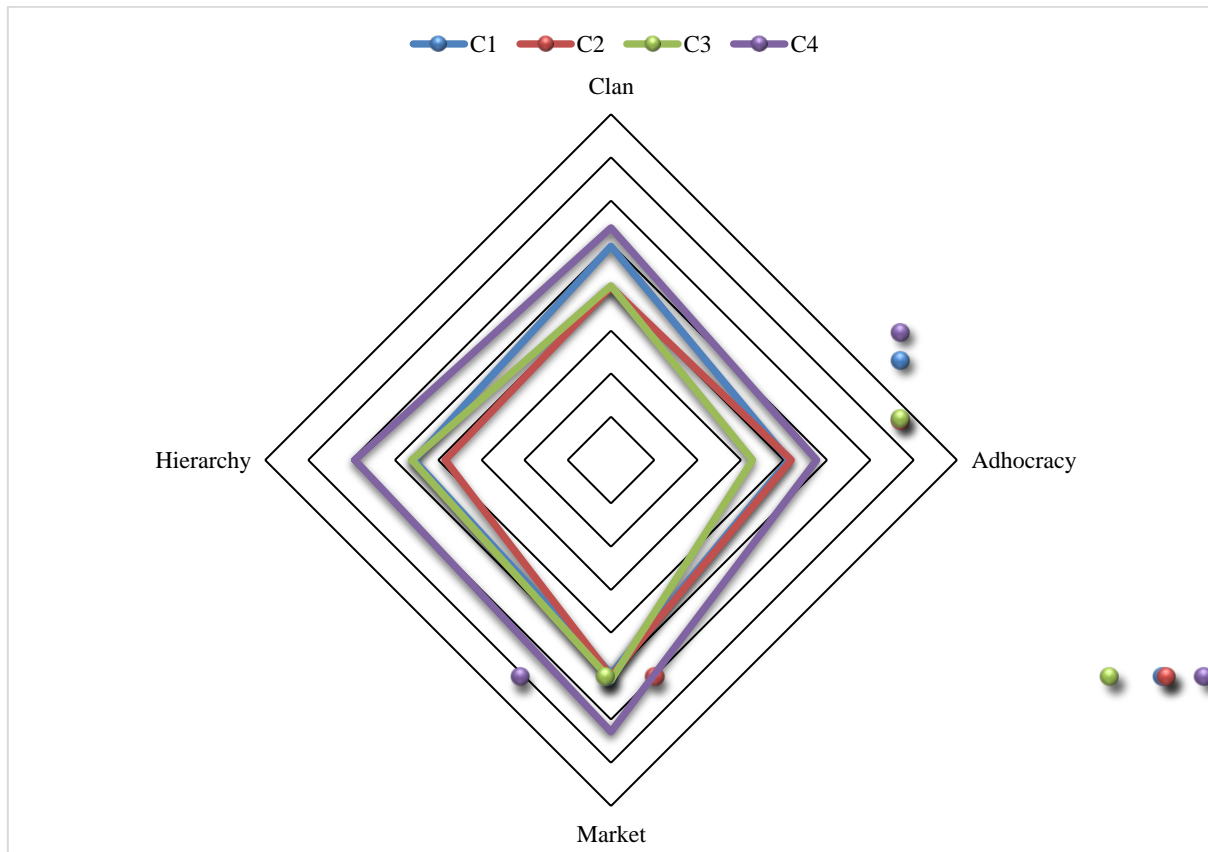
Company	Industry	Participants
Company 1	Automotive Parts Production	14 Senior Professionals from R&D and Management
Company 2	Automotive Production	31 Senior Professionals from R&D and Management
Company 3	Automotive Production	11 Senior Professionals from Management and R&D
Company 4	Automotive Parts Production	15 Senior Professionals from Management and R&D

The 4 companies which are highlighted in table 1 were assessed with the competing values framework which includes 24 questions investigating the culture types on 6 dimensions.

## 2. FINDINGS

The results of the ‘organizational culture assessment’ guided us to understand the existence of the four culture types’ existence in overall culture level and in dimension level.

**Figure 3. Organizational Culture Types in Overall Culture**



**Table 2. Organizational Culture Types in Overall Culture**

Company	Clan	Adhocracy	Market	Hierarchy
C1	<b>3,472</b>	3,056	<b>3,472</b>	3,278
C2	3,000	3,083	<b>3,500</b>	2,917
C3	3,015	2,636	<b>3,545</b>	3,303
C4	3,685	3,377	<b>4,142</b>	3,963

Figure 3 shows us the existence levels of the four culture types with highlighting the dominance of ‘market’ culture at all three companies’ organizational culture. Market culture, which mainly focuses



on competition among the employees and is success oriented, appeared as the most dominant culture type as presented in table 2, however Company 1's 'clan' culture level is same as its 'market' culture level. The same figures can be observed from the 'dominant characteristics' dimensions of the companies, too.

**Figure 4. Organizational Culture Types in Management of Employees Dimensions**

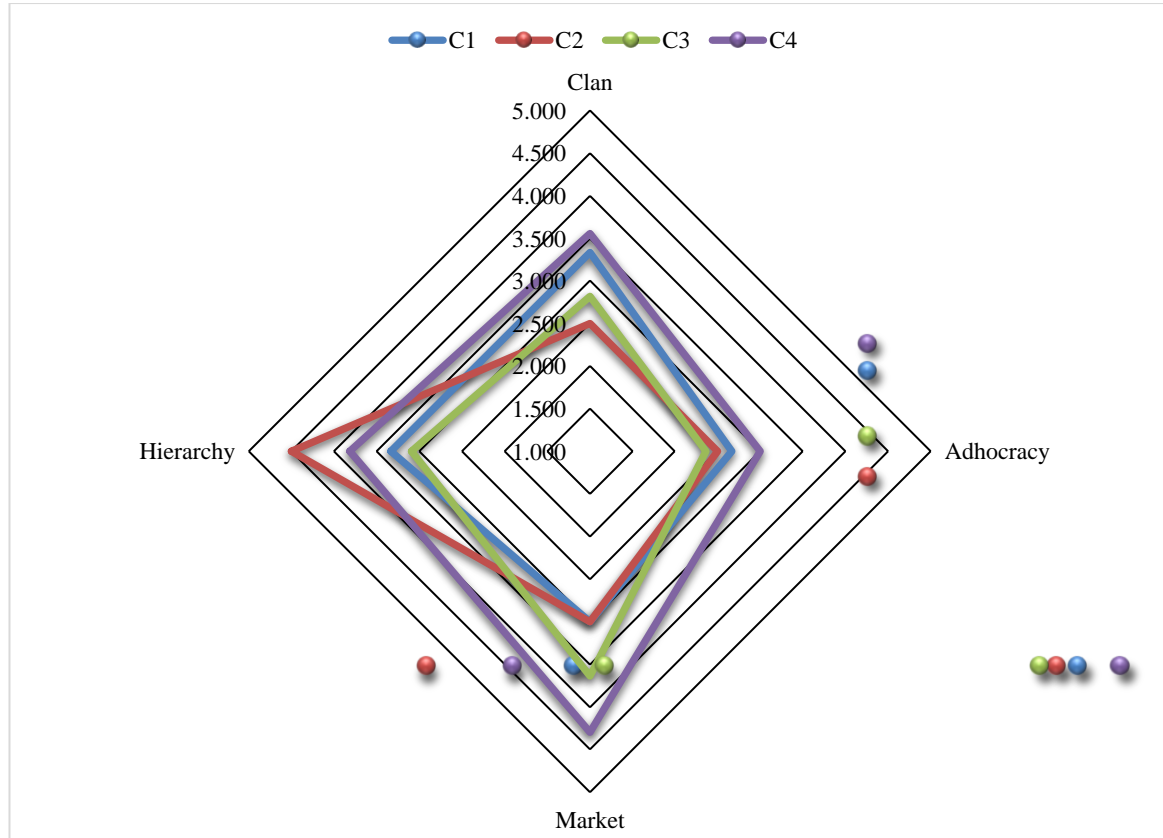


Figure 4 demonstrates the distribution of the culture types of the companies according to 'management of employees' dimension.

**Table 3. Organizational Culture Types in Management of Employees Dimensions**

Company	Clan	Adhocracy	Market	Hierarchy
C1	3,333	2,667	3,000	3,333
C2	2,500	2,500	3,000	4,500
C3	2,818	2,364	3,636	3,091
C4	3,556	3,000	4,296	3,815

We have observed the dominance of hierarchy culture in two companies in table 3. On the other hand, the market culture type is also strong in these companies' 'management of employees' dimensions. Market culture type occurred as the most dominant culture for the other 2 companies.

**Figure 5. Organizational Culture Types in Organizational Leadership Dimensions**

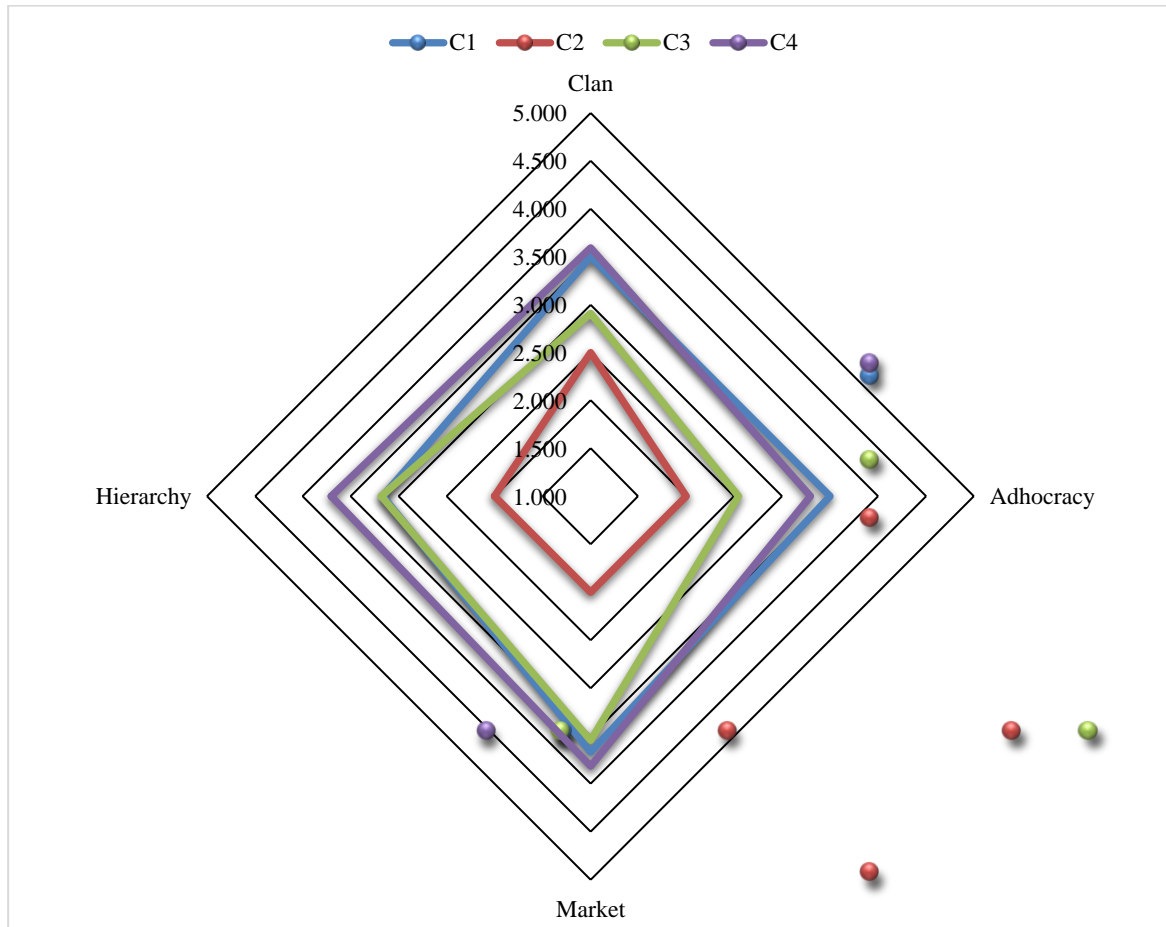


Figure 5 demonstrates the distribution of the culture types of the companies according to ‘organizational leadership’ dimension.

**Table 4. Organizational Culture Types in Organizational Leadership Dimensions**

Company	Clan	Adhocracy	Market	Hierarchy
C1	3,500	3,500	<b>3,667</b>	3,167
<b>C2</b>	<b>2,500</b>	2,000	2,000	2,000
C3	2,909	2,545	<b>3,545</b>	3,182
C4	3,593	3,296	<b>3,815</b>	3,704

We have again seen the dominance of market culture in the companies’ organizational leadership dimension although company 2 presented a different behaviour with the clan type as it is presented in table 4.

**Figure 6. Organizational Culture Types in Criteria of Success Dimensions**

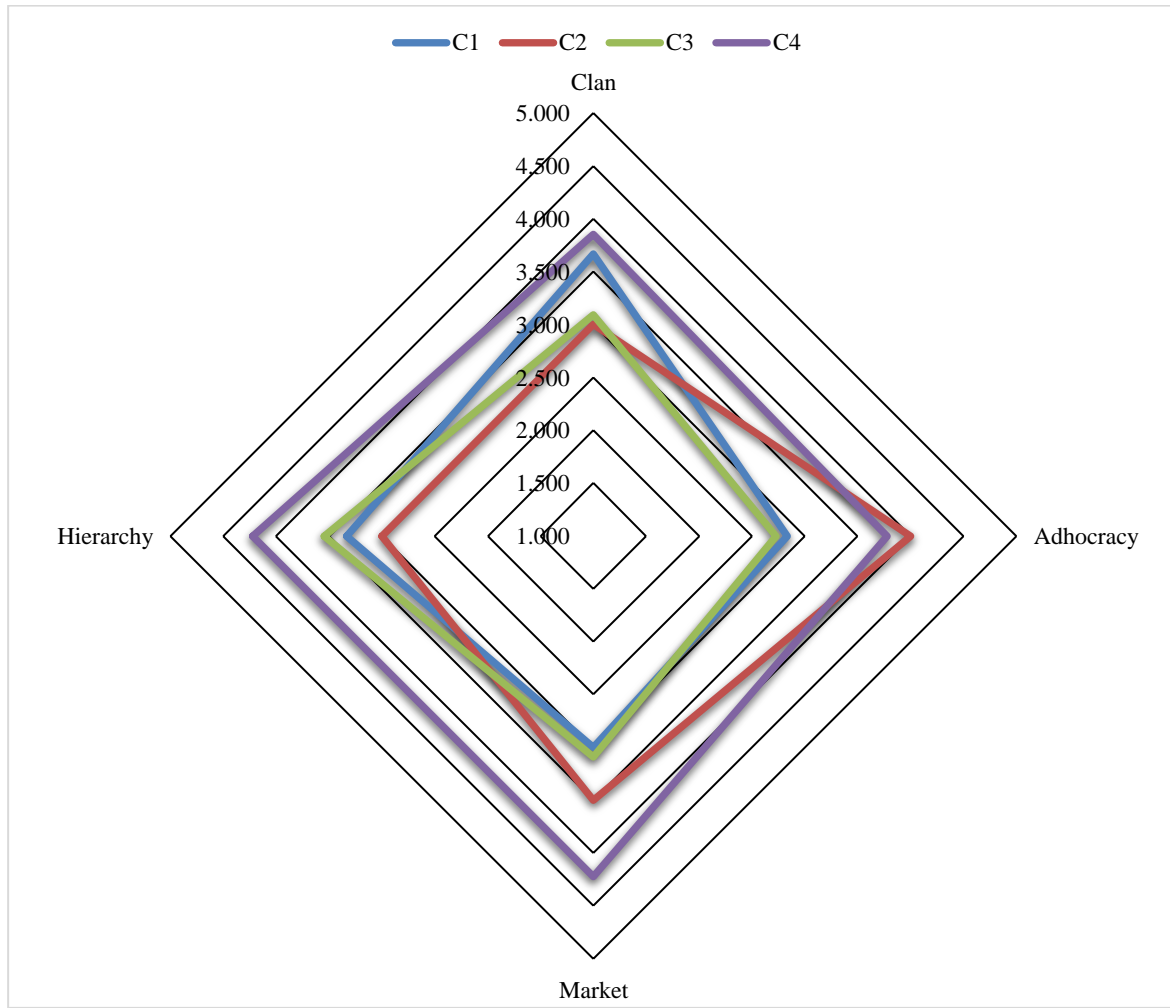


Figure 6 demonstrates the distribution of the culture types of the companies according to ‘criteria of success’ dimension.

**Table 5. Organizational Culture Types in Criteria of Success Dimensions**

Company	Clan	Adhocracy	Market	Hierarchy
C1	<b>3,667</b>	2,833	3,000	3,333
C2	3,000	<b>4,000</b>	3,500	3,000
C3	3,091	2,727	3,091	<b>3,545</b>
C4	3,852	3,778	<b>4,222</b>	<b>4,222</b>

The criteria of success vary from company to company dependent on their management and leadership view. We can see this point also in the assessment of this dimension presented in table 5. This dimension hasn’t presented parallel results with management and leadership dimensions.

**Figure 7. Organizational Culture Types in Dominant Characteristics Dimensions**

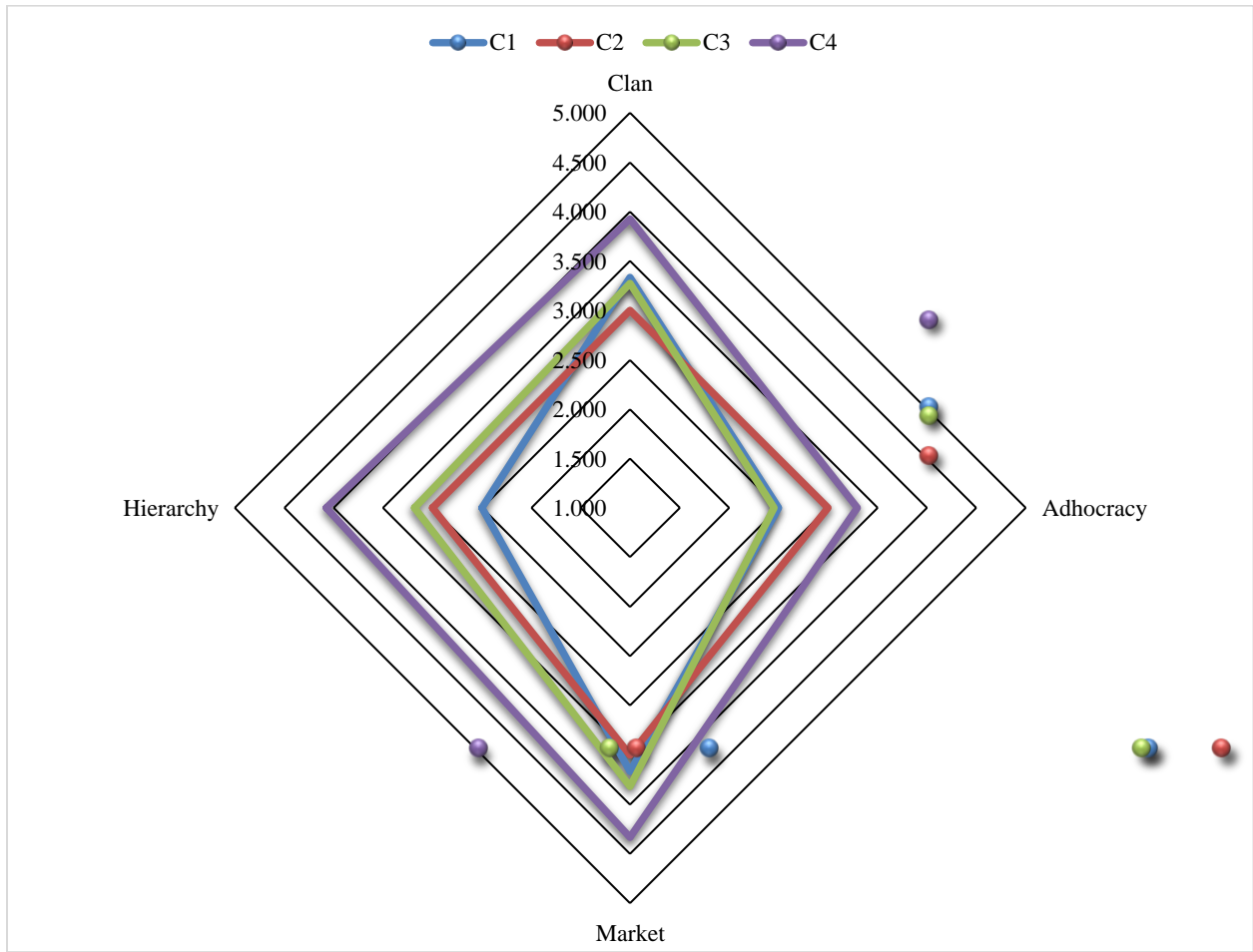


Figure 7 demonstrates the distribution of the culture types of the companies according to ‘dominant characteristics’ dimension.

**Table 6. Organizational Culture Types in Dominant Characteristics Dimensions**

<b>Company</b>	<b>Clan</b>	<b>Adhocracy</b>	<b>Market</b>	<b>Hierarchy</b>
C1	3,333	2,500	<b>3,667</b>	2,500
C2	3,000	3,000	<b>3,500</b>	3,000
C3	3,273	2,455	<b>3,818</b>	3,182
C4	3,926	3,296	<b>4,333</b>	4,074

The market culture type is the most dominant culture type for the companies’ dominant characteristics dimensions as we can see from table 6.

**Figure 8. Organizational Culture Types in Organization Glue Dimensions**

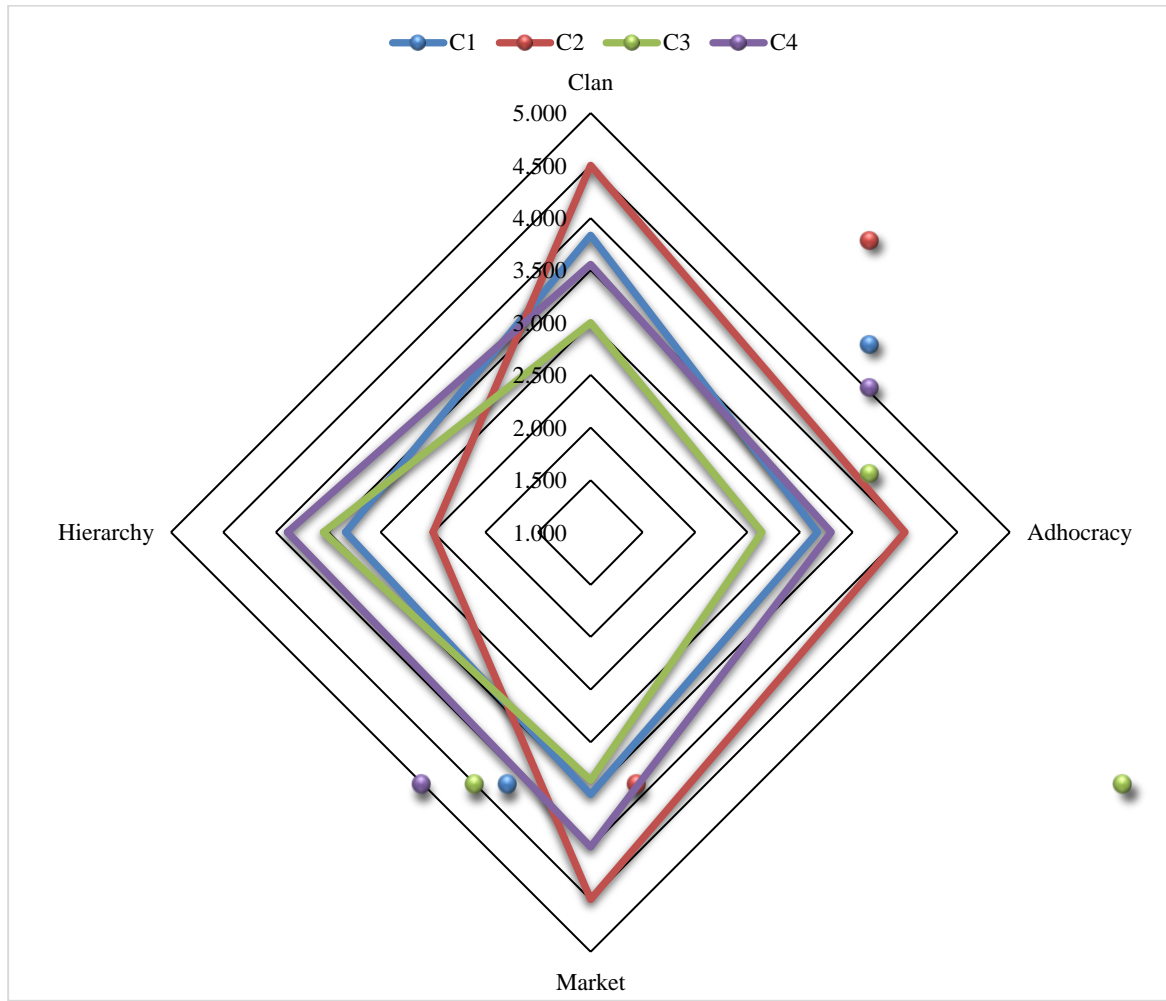


Figure 8 demonstrates the distribution of the culture types of the companies according to 'organizational glue' dimension.

**Table 7. Organizational Culture Types in Organization Glue Dimensions**

Company	Clan	Adhocracy	Market	Hierarchy
C1	<b>3,833</b>	3,167	3,500	3,333
C2	<b>4,500</b>	4,000	<b>4,500</b>	2,500
C3	3,000	2,636	3,364	<b>3,545</b>
C4	3,556	3,296	<b>4,000</b>	3,889

The results vary from company to company at this dimension. Company 2 presented same levels at clan and market culture types as we can see from table 7.

**Figure 9. Organizational Culture Types in Strategic Emphasis Dimensions**

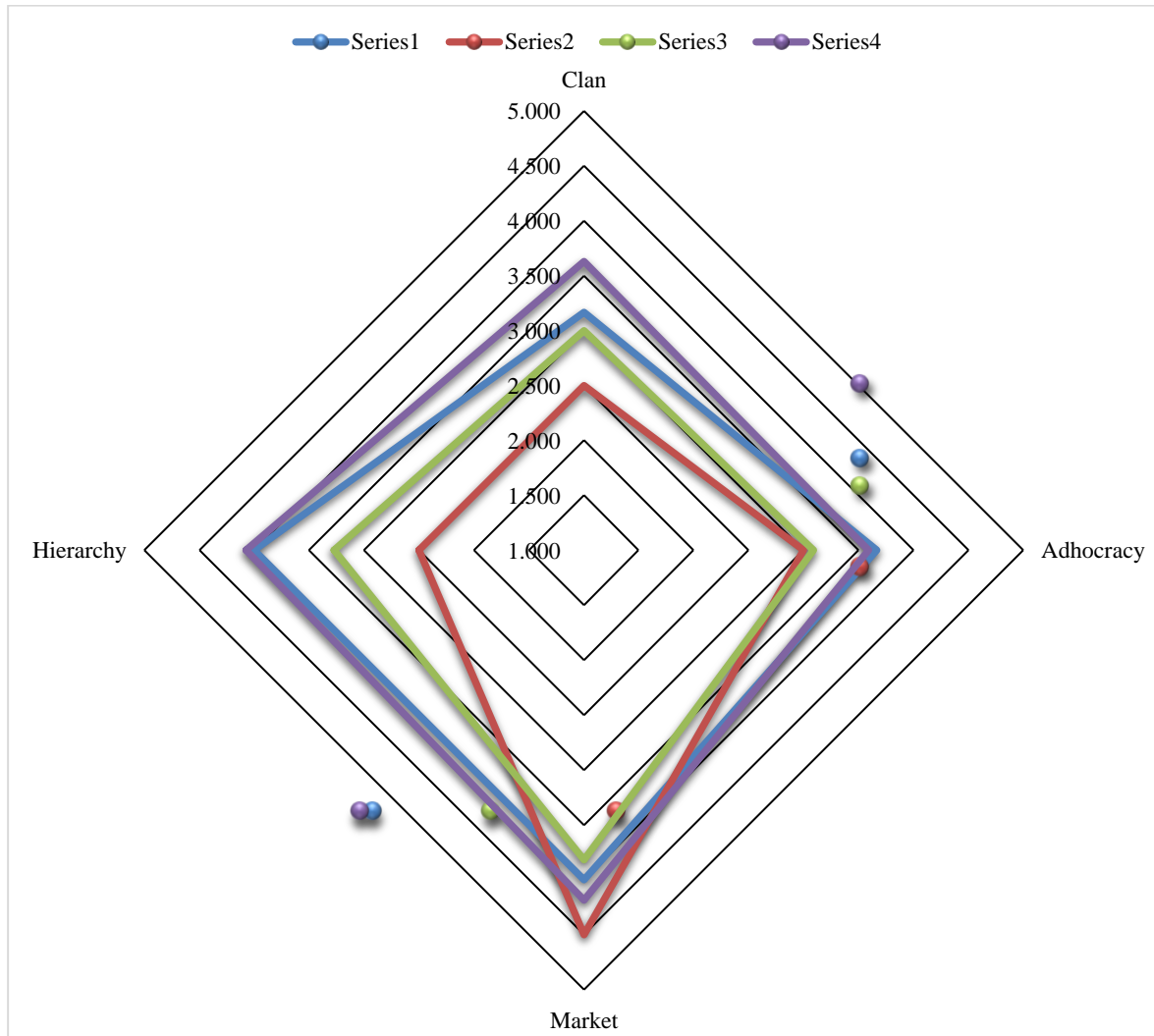


Figure 9 demonstrates the distribution of the culture types of the companies according to ‘strategic emphases’ dimension.

**Table 8. Organizational Culture Types in Strategic Emphasis Dimensions**

<b>Company</b>	<b>Clan</b>	<b>Adhocracy</b>	<b>Market</b>	<b>Hierarchy</b>
C1	3,167	3,667	<b>4,000</b>	<b>4,000</b>
C2	2,500	3,000	<b>4,500</b>	2,500
C3	3,000	3,091	<b>3,818</b>	3,273
C4	3,630	3,593	<b>4,185</b>	4,074

Table 8 demonstrates the dominance of market culture type among the other culture types for the companies’ Strategic Emphasis dimensions.

### 3. CONCLUSION

The dominant types of market and hierarchical culture at the management and leadership levels have demonstrated the existence of a focus on success orientation and focus on success by increasing competition among employees, and this is achieved through a structured understanding of management

and leadership. Another important issue is to see how important productivity and stable operation are in sample enterprises. The size of our exemplary businesses in fact requires rules, procedures and an understanding of structural orientation. This will probably be different in the companies with smaller teams and only design or produce innovative software or services, but considering the employment size, complexity of their production process, the adhocracy culture could not be expected to be the most effective culture. This kind of business requires hierarchy in some way and time. Leaders and managers in such cultures are highly demanding and perfectionist. On the other hand, they always want things to go smoothly and within the plan.

This study opens a road to understand management and leadership culture in a mass production area like automotive industry, which requires harmonization of technology and process efficiency for the achievement of business success. On the other hand, independent from the business area, it gives us a view to understand the interrelationship of organizational cultural dimensions since the sample size can be considered as a limitation. Further studies with more companies and selection from various industries can be beneficial to understand to organizational culture, management and leadership relationship.

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