

**FACTORS OF ORGANIZATIONAL PERFORMANCE IN
HIGH-GROWTH SMES: AN INVESTIGATION FROM
TURKISH MANUFACTURING INDUSTRY**



EBUBEKİR GÖNÜL

MEF UNIVERSITY

MAY 2023

MEF UNIVERSITY
GRADUATE SCHOOL OF SOCIAL SCIENCES
MASTER'S IN BUSINESS ADMINISTRATION

MA THESIS

**FACTORS OF ORGANIZATIONAL PERFORMANCE IN
HIGH-GROWTH SMES: AN INVESTIGATION FROM
TURKISH MANUFACTURING INDUSTRY**

Ebubekir GÖNÜL

ORCID NO : 0009-0005-2434-7257

Thesis Advisor : Asst. Prof. Dr. Hande KARADAĞ

MAY 2023

ACADEMIC HONESTY PLEDGE

I declare that all the information in this study, is collected and presented in accordance with academic rules and ethical principles, and that all information and documents that are not original in the study are referenced in accordance with the citation standards, within the framework required by the rules and principles.

Name and Surname: Ebubekir GÖNÜL

Signature:



ABSTRACT

FACTORS OF ORGANIZATIONAL PERFORMANCE IN HIGH-GROWTH SMES: AN INVESTIGATION FROM TURKISH MANUFACTURING INDUSTRY

Ebubekir GÖNÜL

M.A. in Business Administration

Thesis Advisor: Asst. Prof. Dr. Hande KARADAĞ

May 2023, 55 Pages

This study aims to examine the factors that affect performance of high-growth small and medium sized enterprises (SMEs) in Turkish manufacturing industry. For that objective, an empirical research is conducted for investigating the common success and failure factors influencing the organizational, financial, and resource management performance of SMEs operating in Türkiye. The manufacturing industry is a crucial sector for Turkish economy, as it provides a multitude of benefits and plays a vital role in the country's growth and development. The manufacturing sector is responsible for a significant portion of Turkey's Gross Domestic Product (GDP) and provides jobs to millions of workers, reducing unemployment and fostering economic growth. Additionally, the manufacturing industry is a major contributor to Turkey's export earnings, which is the key for the country's balance of trade and foreign currency reserves. The sector also drives technological development, as manufacturers invest in research and development to improve their products and processes. Furthermore, the growth of the manufacturing industry is an important factor in supporting regional development and reducing regional disparities, particularly in the more rural and less developed areas. In conclusion, the manufacturing industry is of utmost importance for Turkey, and its continued growth and development requires support from the government and other stakeholders.

Keywords: Growth; SME, Industry, Growth in SMEs, Growth Factors, Organization, Organizational Performance

Numeric Code of the Field: 115303

ÖZET

TÜRK ÜRETİM ENDÜSTRİSİ'NDE HIZLI BÜYÜYEN KOBİLERİN ORGANİZASYON PERFORMANS FAKTÖRLERİ

İşletme Tezli Yüksek Lisans Programı

Tez Danışmanı: Doç. Dr. Hande KARADAĞ

Mayıs 2023, 55 sayfa

Bu çalışma, Türk imalat sanayinde hızlı büyüyen küçük ve orta ölçekli işletmelerin (KOBİ) performansını etkileyen faktörleri incelemeyi amaçlamaktadır. Bu amaçla, Türkiye'de faaliyet gösteren KOBİ'lerin organizasyonel, finansal ve kaynak yönetimi performanslarını etkileyen ortak başarı ve başarısızlık faktörlerinin araştırılmasına yönelik ampirik bir araştırma yapılmıştır. İmalat sanayi, sağladığı pek çok fayda ve ülkenin büyüme ve kalkınmasında hayati bir rol oynaması nedeniyle Türk ekonomisi için çok önemli bir sektördür. İmalat sektörü, Türkiye'nin Gayri Safi Yurtiçi Hasılasının (GSYİH) önemli bir kısmından sorumludur ve milyonlarca işçiye iş sağlayarak işsizliği azaltır ve ekonomik büyümeyi destekler. Ayrıca imalat sanayi, ülkenin ticaret dengesinin ve döviz rezervlerinin anahtarı olan Türkiye'nin ihracat gelirlerine de önemli bir katkı sağlıyor. Üreticiler, ürünlerini ve süreçlerini iyileştirmek için araştırma ve geliştirmeye yatırım yaptıklarından, sektör teknolojik gelişmeyi destekliyor. Ayrıca imalat sanayinin büyümesi, özellikle daha kırsal ve az gelişmiş bölgelerde bölgesel kalkınmanın desteklenmesinde ve bölgesel eşitsizliklerin azaltılmasında önemli bir faktördür. Sonuç olarak, imalat sanayii Türkiye için büyük önem taşımaktadır ve bu sanayinin sürekli büyümesi ve gelişmesi için devletin ve diğer paydaşların desteğine ihtiyaç duyulmaktadır.

Anahtar Kelimeler: Büyüme, Kobi, Endüstri, Kobilerde Büyüme, Büyüme Faktörleri, Organizasyon, Organizasyon Performansı

Bilim Dalı Sayısal Kodu: 115303

TABLE OF CONTENTS

| | |
|--|-----|
| ABSTRACT | i |
| ÖZET | ii |
| ACKNOWLEDGEMENTS | iii |
| TABLE OF CONTENTS | iv |
| LIST OF TABLES | v |
| LIST OF FIGURES | vi |
| INTRODUCTION | 1 |
| 1. Development Status of Manufacturing Industry in Türkiye | 1 |
| 1.1 Overview of Local Manufacturing Industry..... | 1 |
| 1.2 Manufacturing Development Statistics of Türkiye | 7 |
| 1.2.1 Manufacturing Output Value | 7 |
| 1.2.2 Pace of Manufacturing Industry Development | 9 |
| 1.2.3 Employment Statistics of Local Manufacturing Industry..... | 10 |
| 1.2.4 Export Statistics of Local Manufacturing Industry..... | 11 |
| 2. PERFORMANCE INDICATORS IN MANUFACTURING SMES | 15 |
| 2.1 The Role of Organizational Structure on Performance | 17 |
| 2.2 The Major Elements of Organizational Performance for SMEs | 18 |
| 2.3 What Are The Key Indicators of Organizational Performance? | 19 |
| 2.3.1 Human Capital | 19 |
| 2.3.2 Organizational Learning | 20 |
| 2.3.3 Knowledge Management | 21 |
| 2.3.4 Organizational Culture | 22 |
| 2.3.5 The Results of Past Empirical Studies... .. | 23 |
| 2.4. Manufacturing-Oriented Business Performance Models | 25 |
| 3. AN EMPIRICAL INVESTIGATION OF THE PERFORMANCE INDICATORS IN TURKISH MANUFACTURING SMES | 28 |
| 3.1 Proposed Research Model... .. | 28 |
| 3.1.1 Hypotheses..... | 28 |
| 3.2 Data Collection | 29 |
| 3.2.1 Sample Size | 29 |
| 3.2.2 Target Population..... | 29 |
| 3.3. Variables and Measures | 29 |

| | |
|--|-----------|
| 3.4. Results of Reliability and Validity Analyses | 31 |
| 3.4.1 Factor Analysis for Organizational Strategy | 31 |
| 3.4.2 Factor Analysis for Human Capital | 33 |
| 3.4.3 Factor Analysis for Organizational Culture | 35 |
| 3.4.4 Factor Analysis for Organizational Learning | 37 |
| 3.4.5 Factor Analysis for Organizational Performance | 38 |
| 3.5 Results of Regression Analyses..... | 40 |
| 3.6 Discussion of Findings | 45 |
| CONCLUSION | 47 |
| REFERENCES | 49 |



LIST OF TABLES

| | |
|---|----|
| Table1: KMO, Bartlett's and reliability test scores for of organizational strategy.... | 32 |
| Table2: Results of factor analysis for organizational strategy..... | 32 |
| Table3: KMO, Bartlett's and reliability test scores for of human capital..... | 34 |
| Table4: Results of factor analysis for human capital | 34 |
| Table5: KMO, Bartlett's and reliability test scores for of organizational culture | 35 |
| Table6: Results of factor analysis for organizational culture | 35 |
| Table7: KMO, Bartlett's and reliability test scores for of organizational learning ... | 37 |
| Table8: Results of factor analysis for organizational learning | 38 |
| Table9: KMO and Bartlett's test scores for organizational performance | 39 |
| Table10: Results of factor analysis for organizational performance | 39 |
| Table11: Results of regression analysis for the correlation of organizational strategy with organizational performance..... | 42 |
| Table12: Results of regression analysis for the correlation of human capital with organizational performance | 43 |
| Table13: Results of regression analysis for the correlation of organizational culture with organizational performance..... | 44 |
| Table14: Results of regression analysis for the correlation of organizational learning with organizational performance..... | 45 |

LIST OF FIGURES

| | |
|--|----|
| Figure 1: Relations between transformational leadership, organizational learning, knowledge management, organizational innovation, and organizational performance | 23 |
| Figure 2: A model of factors affecting organizational performance | 25 |
| Figure 3: External fit, internal fit, and performance | 25 |
| Figure 4: Dimensions of the organizational performance model | 26 |
| Figure 5: Factors that drive performance | 27 |
| Figure 6: Proposed model of the research | 28 |
| Figure 7: Final model of the Research | 41 |
| Figure 8: Empirical model for the relationship between organizational strategy and organizational performance | 41 |
| Figure 9: Empirical model for the relationship between human capital and organizational performance | 42 |
| Figure 10: Empirical model for the relationship between organizational culture and organizational performance | 43 |
| Figure 11: Empirical model for the relationship between organizational learning and organizational performance | 44 |

INTRODUCTION

This study aims to examine the factors that affect performance of high-growth small and medium sized enterprises (SMEs) in Turkish manufacturing industry. For that objective, an empirical research is conducted for investigating the common success and failure factors influencing the organizational, financial, and resource management performance of SMEs operating in Türkiye.

The manufacturing industry is a crucial sector for Turkish economy, as it provides a multitude of benefits and plays a vital role in the country's growth and development. The manufacturing sector is responsible for a significant portion of Turkey's Gross Domestic Product (GDP) and provides jobs to millions of workers, reducing unemployment and fostering economic growth. Additionally, the manufacturing industry is a major contributor to Turkey's export earnings, which is the key for the country's balance of trade and foreign currency reserves. The sector also drives technological development, as manufacturers invest in research and development to improve their products and processes. Furthermore, the growth of the manufacturing industry is an important factor in supporting regional development and reducing regional disparities, particularly in the more rural and less developed areas.

In conclusion, the manufacturing industry is of utmost importance for Turkey, and its continued growth and development requires support from the government and other stakeholders.

1. Development Status of Manufacturing Industry in Türkiye

This chapter mainly outlines the development of Türkiye and provides information on the key measures regarding the development of Türkiye's manufacturing industry from the aspects of output value development, output value proportion, development speed, employment proportion, and export proportion, so as to clarify the development status of Türkiye's manufacturing industry.

1.1 Overview of Local Manufacturing Industry

Türkiye's manufacturing industry is an important part of the economy. For more than 90 years since independence, Türkiye has formulated many industrial policies in the field of manufacturing. Some of these policies are conducive to the

development of manufacturing industry, while others hinder the development of manufacturing industry (OECD, 2004). Before the 1990s, industrial policies mainly emphasized the control role of the government, with a strong color of planned economy, ignoring the laws of industrial development, and even some policies stipulated that only state-owned enterprises could enter national strategic industries. In particular, the licensing system set up in Türkiye divides all industries in Türkiye into four categories, namely, core fields, key investment fields, intermediate fields and freely accessible fields. Except the last one, all industries in Turkey need government permission to enter. Although the industrial policies at that time promoted the development of the manufacturing industry to a certain extent, in the long run, the impact of these policies has until today become a persistent disease in the development of Türkiye's manufacturing industry (Şener, Savrul, & Aydın, 2014). Economic growth generally goes through industrialization first and then deindustrialization. First of all, industrialization can transfer resources from agriculture to industry, and the share of manufacturing industry in the economy will continue to rise, and then the service industry will become more and more important. The transfer of labor force in the process of industrialization is the most prominent. The proportion of manufacturing employment in total employment will increase with the process of industrialization and will decline until it reaches the peak. The overall development trend is an inverted "U". However, in some poor countries, the phenomenon of "deindustrialization" occurs when the level of industrialization and per capita income is low. Türkiye is a case in point. This is largely because Türkiye has a huge demographic dividend. Every month, more than one million young workers are looking for work opportunities, and the labor-intensive industries transferred from China need such cheap labor. But in fact, this phenomenon in Türkiye cannot be called deindustrialization, it only has the general appearance of deindustrialization, and the reason why it presents this appearance is incomplete industrialization. The performance of Türkiye's manufacturing industry is not outstanding. Even in the provinces with the best performance of Türkiye's manufacturing industry, its manufacturing related indicators are dwarfed by some countries in East Asia (Abashah, 2021). In this regard, the manufacturing growth in Türkiye and China is significantly different. The poorer provinces in China are, the faster their manufacturing industry develops and can continue to grow at a high speed to catch up with developed provinces. In Türkiye, however, this phenomenon does not exist. The economic growth of poor provinces is

not faster than that of developed provinces. Therefore, the manufacturing industry has not played a role in narrowing the income gap and improving the per capita income of Türkiye's provinces. The role of manufacturing in economic growth is not obvious in Türkiye (Tekler, 2022).

The world has undergone a great change with the industrial revolution and has a process of rapid economic development. For manufacturing industry, as one of the main branches of the economy, raw materials found in nature began to be valued and shaped, investment and industrial activity increased, and emerging development abolished the concept of distance over time and globalization emerged. As a result, a fast-spreading industrial movement around the world was observed.

After the Ottoman Empire's conquest of Istanbul, especially the small-house and workshop businesses of foreigners became important to the Ottomans and began to set the example for Anatolia. The number and commercial production and small workshops began to increase with new conquests (Aydemir, 2021). In the early 1800s, the Ottoman Empire followed the developments in Europe and entered a breakthrough. In a short time, industrial schools and industrial workshops based on the production base were opened throughout the empire. However, due to the wars and economic problems of the Ottoman Empire in the past period which caused a sharp decline in industrial activities, newly opened factories had to be closed down. Turkish industry, which began to bleed severely due to political and economic pressure until the establishment of the Republic, found an opportunity to reactivate with the projects initiated by Mustafa Kemal Atatürk after the proclamation of the foundation. The new born Turkish Republic started the foundation of industrial establishments both the state and private investors, 2021). After the 1950s, 1980s and 2000s, the country's industry developed in a different direction and began to produce powerful, high-tech and highly competitive industrial products (Russia & CIS Military Newswire, 2022).

Industrial production figures showed a positive rise as a result of the previous plan in the Five-Year Development Plan implemented in 1996-2000, despite the economic crisis that occurred in 1994. In this regard, the primary objective was to control the resources allocated for industry promotion, which is an essential component of economic development. During this time, the elimination of our industry's lack of competitiveness once more came to the forefront. Liberal economic

policies have been viewed as a factor that gives the industry competitive power, depending on the location and potential of our nation providing importance to vocational education is also included in important issues in order to supply the industry with the workforce it requires. One of the top goals has been to increase the number of organized industrial zones in order to improve the industry's planning and efficiency.

In the Five-Year Development Plan implemented in 2001-2005, more use of natural resources was discussed in order to meet the raw material and energy needs of the industry faster, safer and cheaper (UVKP, 2000). Industry has been an important locomotive of Türkiye, which grew above the world average before 2000. In this period, industry was again seen as the most important element for development. However, the country faced another major economic crisis in 2001, which forced the business owners to be very cautious in every step to be taken. As such, economic breakthroughs started to be narrower in this period and less risk policies were discussed, which in particular aimed to market export-oriented goods to Europe. Plans and programs were prepared in order to eliminate the interregional development differences within the country. Again, as in the previous plans, importance was given to employment, communication, competitiveness, knowledge, and R&D studies (UVKP, 2000).

In the European Union harmonization process, the industry-environment relationship was carefully handled in this period as well. IX. Five-Year Development Plan: The industry, which showed a significant increase in GDP in 2000 and 2005, made a significant breakthrough in investment, production, and exports right after the 2001 crisis (Kirenci, 2021). Despite these positive developments, the problems that have existed in the manufacturing industry from the past continue. Competition, technology, qualified personnel, inability to connect with other developing sectors, lack of organized industrial zones, R&D and informatics were emphasized as main hindering factors. During this period, instead of traditional industry, more modern and more competitive industry was targeted, as the traditional sectors such as textile, clothing, and leather, were declining due to the cheap labor coming from China and India. Türkiye, who is largely dependent on foreign countries in the field of defense, has started more extensive and comprehensive studies on the defense industry in this

plan. In this sector the operating male population in Turkey was bigger than the working feminine population in 1990, 2000, and 2010. In 1990, there have been 14,973,479 working males within the population; by 2010, that number had increased by 18% to 17,690,188. On the opposite hand, in 2010, there were 9,704,410 working ladies, up 15% from 8,408,414 (Mevlutoglu, 2017). With the advance of content conditions, the will for higher economic conditions, and the growth of academic opportunities, it's been ascertained that the quantity of working women has increased as compared to the past.

The mortgage lending crisis, which began in the middle of 2007 in the United States and spread quickly to other nations, affected the housing finance market. Even though this crisis had less of an impact in some countries than in others, it had significant negative effects. The inflation target was not met in the nation, money inflow decreased, small and medium-sized businesses began to suffer, and Turkish industry layoffs were inevitable. The crisis completely influenced the years 2008 and 2009 (Goker, Dursun & Albayrak, 2019). The Turkish industrial sector experienced stagnation and regression over the course of these two years. Loan rates were higher than anticipated, while exchange rates once again fluctuated. The implementation of stringent monetary policies was initiated once more. Industrial activities in Turkey were also negatively impacted when imports and exports were negatively impacted, and as a result, in particular, businesses with small capitals and small businesses have begun to close, and the employment issue has returned to the forefront. The industrial production index was negative in 2009, reaching -9.9 percent. As a result of incentives and policies implemented in 2010, industry in Turkey and Anatolia began to grow. In terms of exports, some products have risen to the top. This year, the industrial production index went from negative to positive, reaching 10.1%. The industrial production index reached 8.9% in 2011 as a result. Net exports increased and industry growth continued in 2011, according to observations. The annual increase in the industrial production index was 2.3 percent in 2012, which was a decrease (Ozturk & Agan, 2017).

Turkey's young, large, dynamic entrepreneurial class, as well as its geographical location, make it an important production base. Turkey's position is to consolidate its production costs and capacity in a strong position in the global supply

chain, with the goal of increasing the production-to-GDP ratio from 18.83% to 21% through 2023, and it plans to meet the country's financial development program goals in 2023 (Eksi, Senturk & Yildirim, 2012; Duran & Kanat, 2020).

The added value of Türkiye's manufacturing industry accounts for only 1.8% of the total added value of the global manufacturing industry, which is far from the 21% added value of China's manufacturing industry. However, Türkiye's manufacturing development continued to strengthen. In 1991, Türkiye's manufacturing added value ranked outside the world's 15, rose to the 13th place in 2001, and entered the ranks of one of the top ten manufacturing countries in the world in 2011. According to the 2019 Global Manufacturing Competitiveness Index jointly released by the U.S. Competitiveness Commission and Deloitte, Türkiye's manufacturing competitiveness index is 7.65, ranking fourth in the world. It is expected that its competitiveness index will reach 8.49 within five years, making it the most competitive country outside China (Evcen, 2019).

Türkiye's manufacturing industry is mainly composed of basic metal industry, chemical and chemical products, food production, petroleum industry, textile industry, automobile industry, etc. The industries with certain comparative advantages in international trade are textiles, clothing and leather products. Small and micro enterprises dominate the manufacturing industry. The distribution of enterprises is polarized. Manufacturing enterprises with less than 50 people create 84% of manufacturing employment, while enterprises with more than 50 people but less than 200 people and more than 200 people only create 6% and 11% of employment. The annual value created by each worker in enterprises with more than 200 employees is 13100 US dollars, while that in small and micro enterprises with less than 50 employees is only 1500 US dollars. The production efficiency is far from the same. The employment population absorbed by the manufacturing industry only accounts for about 11% of the total employment population, and the agricultural employment population accounts for about 53% of the total employment population. The manufacturing industry is expected to absorb more agricultural surplus population.

The added value of Türkiye's manufacturing industry rose steadily, from 3.6 trillion Türkiye lira in 2010-01 to 8.3 trillion Türkiye lira in 2018-19. Although its output value is constantly rising, its growth rate fluctuates greatly and is easily affected

by external markets. From the development history of Türkiye's manufacturing industry, there was a rapid growth of 5.5% in 2005-06 and a decline of - 3.2% in 1989-90; From the perspective of consecutive years, the growth rate of the manufacturing industry in 2016-17 was 14.3% but dropped to 4.3% in 2018-19. At the same time, the proportion of manufacturing output value in GDP has been hovering. Since the founding of the People's Republic of China, the lowest proportion was 8.98% in 1970-71, the highest was 16.59% in 2006-07, and the proportion has been stagnating at about 15% - 16% in the past decade. Compared with the service industry, which accounts for more than 55%, the development of Türkiye's manufacturing industry needs to be accelerated (Evcen,2019).

Most manufacturing enterprises in Türkiye have negative returns on investment, which dampens the enthusiasm of domestic and foreign investors. According to Türkiye's long-term follow-up survey of the largest 1000 manufacturing enterprises in China during the five years from 2015 to 2020, 54% of the enterprises' investment costs are greater than their returns (Karatop, Kubat & Uygun, 2018).

In the next section, statistical data about Türkiye's manufacturing industry will be presented with specific focus on manufacturing output value, the proportion of output value, the development speed, the proportion of employment and the proportion of exports.

1.2 Manufacturing Development Statistics of Türkiye

1.2.1 Manufacturing Output Value

In Türkiye, formal manufacturing accounts for two-thirds of the total manufacturing activities, and informal manufacturing accounts for one-third. The proportion of the output value of informal manufacturing industry in GDP gradually decreased, while the proportion of the output value of formal manufacturing industry continued to rise. In Türkiye, the output value of formal manufacturing accounted for 9.8% in 2014-15 and will increase to 11.2% in 2020-21, while the output value of informal manufacturing will decrease from 5.4% in 2014-15 to 4.5% in 2020-21 (Gergin, Yüksektepe &, Gençyılmaz2018).

The output value of Türkiye's manufacturing industry was only 4.9 billion US dollars in 1960 (Yıldız, 2020). In the following 50 years, the output value of the manufacturing industry showed a rising trend. Until 2019, the output value of the manufacturing industry reached the current maximum of 258 billion US dollars. Later, in 2020 and 2021, the output value of the manufacturing industry showed a continuous decline, which is rare in the history of Türkiye's manufacturing industry. However, from 1960 to 2021, Türkiye's manufacturing industry as a whole is in a rising channel. Before 1991, Türkiye's manufacturing output value was at a low level. During the three decades from 1960 to 1990, the manufacturing output value was less than 50 billion dollars; After 1991, the output value of the manufacturing industry has increased significantly. It took 14 years to reach from \$50 billion to \$100 billion, only six years from \$100 billion to \$200 billion, and less than two years from \$200 billion to \$250 billion (Gergin, Yüksektepe & Gençyılmaz, 2018).

From the perspective of the development process of Türkiye's manufacturing industry after 1960, the output value of the manufacturing industry has declined for many times. For the first time, in 1966, the output value of manufacturing industry dropped from 8 billion dollars to 6 billion dollars; The second time was in 1991, the output value of manufacturing industry dropped from 47.9 billion dollars to 38.1 billion dollars; The third time was in 1998 and 2008 (Evcen G., 2019). Affected by the Asian financial crisis and the global financial crisis, the output value of the manufacturing industry declined by about 2.5%; The fourth time is in 2020 and 2021, the manufacturing industry will decline from 258 billion dollars in 2019 to 223.1 billion dollars.

In 1966, the manufacturing industry experienced a significant decline, but the decline in 1967 was very small, indicating that the manufacturing industry was getting better; After the decline in 2020, there will be a greater decline in 2021, which indicates that the development of manufacturing industry in Türkiye is deteriorating under the impact of the epidemic, and the development of manufacturing industry in Turkey is facing greater challenges (Kaspın, 2019).

1.2.2 Pace of Manufacturing Industry Development

The growth rate of Türkiye's manufacturing industry fluctuates greatly, showing an overall rise or fall in shock (Polat, 2011). Since 1961, Türkiye's manufacturing industry has experienced three relatively significant negative growths, namely 1966, 1991, 2020 and 2021, with growth rates of - 25.6%, - 20.5%, - 5.9% and - 8.1% respectively. At the same time, Türkiye's manufacturing industry also experienced three significant growths, in 1974, 1994 and 2007, the growth rate was 26.7%, 23.4% and 29.7% respectively. Although the growth rate of the manufacturing industry shows an irregular operating path, on the whole, the time when the growth rate is positive is far longer than the time when it is negative, and the peak value of the growth rate of the manufacturing industry is higher than the low peak value.

The industrial license system formulated by Türkiye around 1966 and the Monopoly and Restrictive Trade Practices Act promulgated by Türkiye were the main reasons for the sharp decline of the manufacturing industry, while the reason for the sharp decline in 1991 was the international payment crisis in Türkiye, which also became the trigger for Turkey's economic reform (Yıldız,2020). Part of the manufacturing decline in 2020 and 2021 may be due to the continued impact of the international environment, such as the European debt crisis and the general slowdown of the global economy, but the more important reason may be that Türkiye's manufacturing foundation is not strong enough to effectively respond to changes in the international and domestic markets (Karaboğa, Bilginer & Özsaatçı, 2021). Since the economic reform in Türkiye, the growth rate of the manufacturing industry has been basically positive. Only in 1998 and 2008, there was a slight decline. At the same time, the output value of the manufacturing industry also increased rapidly after that. Only in 2020 and 2021, there was a continuous decline. At this time, the growth rate of China's manufacturing industry remained above 12% for two consecutive years, and the growth rate of the world's manufacturing industry was nearly 2%, which indicates that Türkiye's manufacturing industry is limited by the impact of the international environment, the deeper reason comes from its own brittle fall. If a country's manufacturing industry is competitive internationally, it can drive economic growth through exports when the domestic economy is depressed (Drucker,1992). The export commodities are mainly manufactured products, which means that a country can

increase the export of manufactured products to ease the decline of the domestic economy. At this time, the manufacturing industry should have a significant growth momentum. For example, in 2010 and 2011, when the domestic economy was stagnant, the growth rate of China's manufacturing industry reached 20%, and some of its products met the needs of domestic infrastructure construction, in addition, it can supply manufacturing products to the international market. Therefore, the decline of Türkiye's manufacturing growth reflects more the low level and competitiveness of its own manufacturing industry (Kesdi, 2019).

1.2.3 Employment Statistics of Local Manufacturing Industry

One of the effects of manufacturing on economic growth is employment. It not only directly absorbs a large number of employed people, but also provides opportunities for the transfer of a large number of agricultural surplus labor to cities and towns (Todaro, 1969). In addition, the development of the manufacturing industry also has a multiplier effect on the increase of employment in the service sector. The service industry based on manufacturing products will absorb more employed people with the development of the manufacturing industry. According to the white paper of Türkiye's 2017 National Manufacturing Strategy, every additional job in the manufacturing sector can create two to three jobs in other fields.

It can be seen from 2018 that among the three major industries in Türkiye, agriculture has absorbed the largest number of employed people, and its contribution to output value is the smallest, while the service industry with the largest contribution to output value has absorbed the smallest number of employed people (World Employment and Social Outlook, 2021). The proportion of the employed population absorbed by the manufacturing industry does not match its proportion in GDP. The employed population absorbed only accounts for 11.4% of the total employed population.

However, in terms of the absolute increase of manufacturing employment, Türkiye's manufacturing employment showed a rapid growth. In 1980, the number of manufacturing employment in Türkiye was only 4.7 million, accounting for 3.40% of the world's manufacturing employment, ranking eighth in the world; In 2000, the number of manufacturing employment rose to 7.2 million, accounting for 3.98% of the

world's manufacturing employment, ranking fifth; In 2019, the number of manufacturing employment rose to 11.8 million, accounting for 5.88% of the world's manufacturing employment, ranking second only to China, the United States and India (Kara,2023). In 2018, the number of labor forces in China and Türkiye were 790 million and 380 million respectively. The number of manufacturing employment in China reached 68.8 million, accounting for 34.34% of the world's manufacturing employment. Therefore, the proportion of manufacturing employment in Türkiye is low, both in absolute and relative terms. Compared with the United States, the labor force in the United States reached 160 million in 2018, while the manufacturing employment population reached 12.7 million, accounting for 6.36% of the world's manufacturing employment. The number of manufacturing employment in the United States exceeded that in Türkiye even when the labor population was very different (Calmasur, 2020).

1.2.4 Export Statistics of Local Manufacturing Industry

From 1970 to 2011, the net export of manufacturing industry in Central Asia and Eastern Europe soared from US \$2 billion to US \$653 billion (Edoho,2011). The net export of manufacturing industry in European industrialized countries also increased significantly, from US \$14 billion to US \$359 billion. The net export volume of manufacturing industry in North America decreased from 4 billion dollars to a negative 814 billion dollars. In addition, the net manufacturing exports of industrialized countries in Europe, Latin America, the Middle East and North Africa, South Asia and sub-Saharan Africa all showed deficits of varying extents (De Hoyos, & Medvedev, 2011).

The proportion of Türkiye's manufacturing exports in total merchandise exports showed a trend of first rising and then declining, rising from only 43% in 1972 to the highest 79% in 2007, and then its proportion has been declining, and by 2018, its proportion was only 62% (Polat, 2011). The proportion of manufacturing product exports in a country's commodity exports can reflect the competitiveness of the country's manufacturing products in the international market. The more manufacturing products are produced, the smaller the proportion of primary products is, which indicates the improvement of the manufacturing capacity of the country, and also reflects the gradual transfer of the domestic industrial structure from agriculture to

manufacturing. For example, the proportion of Japanese manufacturing products in commodity exports has been maintained at about 90%, which reflects the strong competitiveness of its manufactured products in the international market, and its advantages are mainly reflected in the level of science and technology; The proportion of China's manufacturing products in commodity exports has been more than 90% in the past decade, which also reflects that its products have great international competitiveness, but its advantages are mainly reflected in the cost (Liu, K. (307-324), 2018). As a developing country, the proportion of manufacturing products in commodity exports of China has gradually increased, while that of Japan has been high since 1962, which shows that the proportion of manufacturing products in commodity exports is closely related to the stage of economic development, but it has been increasing with the transformation of economic structure. In terms of the reasons for promoting the increase of this proportion, developing countries are different from developed countries. Although the proportion is high, the structure of manufacturing products is different. Developing countries mainly rely on their own cost advantages to develop primary manufacturing products, while developed countries rely on their strong technical strength to develop high-tech products (Greenaway, Mahabir & Milner, 2008). The import and export trade of Türkiye's manufacturing industry was basically flat. In the nearly 40 years from 1980 to 2021, there were two decades of deficits in manufacturing trade, but most of the deficits were less than \$10 billion (Ünal, 2020). Only in 2008, the deficit exceeded \$20 billion. The manufacturing trade of Türkiye surplus is also mostly below US \$10 billion, and only in 2018 did the trade surplus exceed US \$20 billion. This shows that Türkiye needs to import a large number of manufacturing products to meet domestic demand while constantly exporting its own manufacturing products (Melek 2019). Manufacturing trade accounts for the majority of Türkiye's foreign trade in goods. The negative net value of manufacturing trade is not conducive to Türkiye's maintaining international trade balance. Most of the manufacturing products exported at the initial stage of the economic structure are low technology. Since the country cannot produce high-tech manufacturing products, it needs to import from the international market. The difference between the added value of low technology products and high-tech products is very large, leading to Türkiye's manufacturing trade has been hovering at the break-even point In 2018, the export value of Türkiye's manufacturing industry reached 206.76 billion dollars, the import value of manufacturing industry reached 181.44 billion dollars, and the

manufacturing trade surplus reached 25.31 billion dollars, a record high. From 2006 to 2012, Türkiye's manufacturing trade has been in deficit, while from 2013 to 2014, there was a strong recovery, which indicates that Türkiye's manufacturing environment has improved.

Compared with China, Türkiye's manufacturing trade volume and net value are lower than China's, especially in terms of trade volume, China's manufacturing import and export volume far exceeds Türkiye's (Bayav& Şahin, 2023). Taking 2018 as an example, China's manufacturing export volume was 2076.95 billion US dollars, while Türkiye's was 201.68 billion US dollars, ten times that of Türkiye. The net value of manufacturing trade between the two countries also differs greatly. The net value of manufacturing trade in Türkiye basically hovers near the break-even point, while China's manufacturing net value has been positive since 1994 and has maintained a rapid growth momentum by 2018, the manufacturing trade surplus was \$935.80 billion, more than twice the manufacturing trade volume of Türkiye in that year. The trade surplus of manufacturing industry shows that its manufacturing industry is competitive internationally, and the total added value of manufacturing export products is higher than that of imported manufacturing products.

From the perspective of the proportion of manufacturing exports in the world's total manufacturing exports, Türkiye's proportion was 2% from 2017 to 2019, and dropped to 1% from 2020 to 2021. At the same time, the proportion of China's manufacturing exports in the world's total manufacturing exports rose from 10% to 14%. Industrialized countries account for 70% of the world's manufacturing exports, while countries experiencing industrialization account for only 30%.

From the perspective of the proportion of high-tech products in the export of manufacturing products, Türkiye's share has always been around 6.5%, while China's share has always been around 28%, Thailand's 20%, Malaysia's 43%, and the world's average share is 17%. At the same time, Türkiye's index is also the last one. High tech products are generally characterized by high added value. The low proportion of Türkiye makes it difficult for the manufacturing industry to have a large trade surplus, which also highlights its backward manufacturing technology (Kasapoglu, 2022).

From the perspective of per capita export volume of manufacturing industry, Türkiye's performance is also not optimistic. In 2011, the per capita export of Türkiye's manufacturing industry was \$216, China \$456, South Africa \$66, Poland \$569, and Türkiye \$44. The average per capita export of manufacturing industry in the world is 1953 dollars, with the highest amount of 3230 dollars in high-income industrialized countries, followed by 1318 dollars in low-income countries. High income industrialized countries and low-income industrialized countries are at the lower end. The manufacturing exports of newly industrialized countries are 988 US dollars, that of other developing countries is 268 US dollars, and that of the least developed economies is only 23 US dollars. This indicator increases with the continuous development of the manufacturing industry. The more developed the manufacturing industry is, the higher its per capita export volume is. Türkiye's per capita manufacturing exports are only 216 dollars, which is among the low - and middle-income industrialized countries and is lower than the average of newly industrialized countries and other industrialized countries. Since Türkiye has a huge population, it is necessary to have a larger manufacturing export in order to increase the per capita manufacturing export. As far as the current situation is concerned, neither China, whose manufacturing output has ranked first in the world, nor Türkiye, whose manufacturing output is relatively small, has reached the average level of emerging economies. It is obvious that both countries have large populations, and the manufacturing export volume obtained by multiplying the per capita export volume by the population will be huge, so Türkiye needs to improve its manufacturing export capacity in comparison (İlhan, 2019).

2. PERFORMANCE INDICATORS IN MANUFACTURING SMEs

Organizational performance is the most important evaluation index in organizational operation and management, and it is the key variable to measure the development of an organization, the key factors affecting organizational performance need to be explored (Gavrea, 2007). Based on a large number of literature reviews and analysis, this paper finds that the key factors affecting organizational performance can be divided into two dimensions: internal factors and external factors. Regarding internal dimensions, knowledge management, organizational culture, organizational innovation, technological diversity, IT application level and pay gap, are frequently mentioned and discussed in the performance research of different regions and industries, it has a significant impact on the change of organizational performance, and most of them show complexity in the impact path (Bharadwaj, 2000). In the other hand, the external factors mainly include supply chain partnerships and market competition (Noruzy, 2013). In the practice of organizational performance management, it is necessary to combine internal and external factors, and analyze the relationship between different factors and impact paths, so as to achieve better overall performance goals.

Performance is a description of the degree to which an organization's goals are achieved and is the result of its operations (Wahjudi, 2016). Organizational performance is one of the most important variables in organizational management and arguably the most important indicator for evaluating the management of an organization's operations, defined in the 1950s as the extent to which a mature organization achieves its strategic goals (Al-Tit, 2017) and as management practice has evolved further, scholars have defined organizational performance as the ability of a mature organization to use its environment to access and use limited resources (Carnabuci & Operti, 2013). Scholars Lebas & Euske (2002) have given a set of definitions to elucidate the concept of organizational performance, which they consider as a set of financial and non-financial indicators that provide information about the extent to which an organization's goals are achieved and results are obtained, and that its performance is dynamic and can be judged and explained through a series of causal models. To report on an organization's level of performance, quantitative results must be cited, this concept will also be followed in this study (Lebas & Euske, 2002).

From the perspective of management development history, the purpose of the performance was achieved through external rules control and economic stimulation in the scientific management period, participation and democratization management in the behaviorist period, and the idea of power change in the system theory period; how to effectively discover the many factors affecting organizational performance and to reasonably guide and control these factors is the key content that managers and scholars have been concerned about (Gavrea, 2007).

As a key variable in complex environments, the factors influencing organizational performance also exhibit ubiquitous and diverse characteristics. In general, factors affecting organizational performance include the organization's departmental structure, stakeholder interrelationships, enterprise risk management capabilities, leader's charisma, human capital, corporate governance rules (Camisón & Villar-López, 2014). Based on the organizational diagnostic model, Corina et al., (2007), identified several key elements affecting organizational performance, the first of which is the structural dimension of the company, involving the company's size (i.e., number of employees), age distribution, and the company's development goals. The second dimension is the internal and external environment of the company, which involves strategy, leadership, employee knowledge, quality of development, performance measures, innovation capacity, and information technology development, while the external environment involves the distribution of competitors, the size of customers, especially potential customers, and the number and closeness of suppliers; the third dimension is the quantitative assessment of organizational performance (Gavrea, Ilie & Stegorean, 2007). Drawing on the research ideas of Corina et al. (2007), the current study classifies the key factors affecting organizational performance into two dimensions based on the relationship between the factors and the organization, intrinsic factors generally exist within the organization and are closely related to the structure and function of the organization, while extrinsic factors generally exist independently outside the organization but significantly affect the operation and development of the organization.

Therefore, in this paper, we will systematically review the key factors that have been found to influence organizational performance and sort out the influence paths of the key factors, to provide a useful reference for the exploration of organizational performance improvement.

2.1 The Role of Organizational Structure on Performance

Organizational structure is an important factor for achieving the strategic goals of the enterprise and is a systematic arrangement of resources to achieve the goals (Child, 1972). Only by adjusting the organizational structure of the enterprise, rationalizing the relationship between and within each department, and clarifying the authority and responsibility, the foundation for the next step of process design and performance assessment and incentive systems can be laid (Al-Tit, 2017). Organizational structure is not only fundamental to ensure the efficient operation of the enterprise, but also to minimize the energy consumed by employees in transactional work (Denis, 1993). As a tangible element to support the efficient operation of the enterprise, the importance of organizational structure covers three main aspects: (1) to determine who is responsible for whom, who reports to whom, and how through the management level and management span; (2) to collect individuals through teams and accommodate teams through departments to carry out the formation of organizational order; (3) to establish a bridge of communication and collaboration between different departments and the process of power integration (Denis, 1993). In short, organizational structure regulates the way of interaction, operation, and power relations. The organization-specific structure can reflect the values - how to do things and how to treat people - by clarifying the division of work tasks, regulating the reactions of behavioral characteristics, and many other aspects.

The impact of organizational structure on organizational performance can also be explained by the power-change theory of organization. (bu ref en sonda yoktu). Changes in organizational performance can also lead to changes in the organization to make it more appropriate to the environment. When organizational performance is relatively low, the organization is in crisis, making the firm less valuable, which leads to organizational change. Changes in organizational performance can serve as a driving force for organizational change. When organizational maladaptation occurs, organizational performance decreases below satisfactory levels, which triggers organizational change and transforms the organization from maladaptation to adaptation. Only with continuous organizational change and improved organizational resilience can organizations maintain high-performance levels and achieve sustained growth. Donaldson's research also argues that when the business cycle is consistently low, it makes organizational performance below satisfactory levels, which triggers

adaptive organizational change; when competitors have good organizational resilience, low organizational performance drives adaptive organizational change. The risk of the sector also triggers organizational change, for example, the "star" sector has a high sectoral risk, which makes the sector constantly in a state of maladjustment and triggers frequent adaptive changes.

From the perspective of dynamic environmental development, the expansion of the organization's scale will inevitably bring about an increase in personnel, expansion of departments, and solidification of hierarchies, thus driving the organization from a simple linear management model to a functional management model with a clear division of labor and emphasis on specialization, and then from a divisional structure that meets diversified market demands to a more intricate and complex matrix structure or even a borderless organization without a clear shape (Bass, 1985). Prior studies have shown that the right internal structure helps companies achieve their goals and missions, for example, an M-shaped structure helps companies achieve higher profitability (Seaman & Williams, 2000).

2.2 The Major Elements of Organizational Performance for SMEs

A wealth of research has indicated a positive correlation between leadership competencies and organizational performance (Bass, 1985). More recently, scholarly research has increasingly focused on exploring the effects and impact paths of transformational or innovative leadership in improving organizational performance. According to Bass (1985), transformational leadership enables subordinates to raise their inner needs, gain a greater awareness of what is truly meaningful, move beyond self-interest to pursue higher team interests, to seek self-actualization, and ultimately become their leaders. Transformational leadership consists of four dimensions: "leadership charisma", "inspiration", "intelligent stimulation" and "personalized care" (Bass, 1985). Schaubroeck (2007) suggested that transformational leadership has an impact on team performance through the mediating effect of team effectiveness and that this effect is moderated by team values. According to their research, the role of transformational leadership is mediated by both power distance and group collectivism, with transformational leadership contributing more positively to team effectiveness when power distance is greater and when there is a strong sense of collectivity (Schaubroeck, 2007). Subordinates vary greatly in the extent to which they

recognize and derive superior performance from transformational leadership, and team power distance and team collectivism are important factors driving these differences. Scholars' research explored the mechanisms that mediate learning and innovation in the relationship between transformational leadership and organizational performance. The study suggests that the adoption of transformational leadership styles can improve performance when specific human resource management practices, learning, and innovation systems are developed in organizations (Para-González, Jimenez-Jimenez & Martínez-Lorente, 2018).

The below section summarizes the key factors of performance in small and medium sized businesses.

2.3 What Are the Key Indicators of Organizational Performance?

2.3.1. Human Capital

Human capital is the sum of knowledge, skills, experience, ideas, and potential attached to employees, and has the characteristics of a resource that can bring sustainable competitive advantage and superior performance to an enterprise, and is difficult to be copied and imitated by competitors, and is an important strategic resource for an enterprise (Luthans, & Youssef, 2004). The knowledge and skills of employees with high levels of human capital allow them to design more effective solutions to a given job, thus providing the company with high-quality products and service behaviors that lead to high performance and sustained competitive advantage. Empirical studies also show that there is a positive relationship between the level of human capital a firm possesses and its performance (Wright, McMahan & McWilliams, 1994). Human capital can be supplied from the external labor market or constructed internally, among which education increases the intangible accumulation of human capital in terms of knowledge, skills, and experience, and is the main way to form human capital in the external labor market, so the level of education becomes an important indicator of human capital (Becker, 2009). The human resource management activity of an enterprise is an organizational capability that can effectively integrate and utilize the human capital of employees. It brings a competitive advantage to the enterprise by influencing the attitude and behavior of employees and motivating them to use their knowledge and ability to provide functional services to the company. At the same time, this competitive advantage

translates into corporate profitability, improving economic indicators such as earnings per share, operating profit, and operating income, and ultimately demonstrating better corporate performance (Pfeffer, 1998).

2.3.2 Organizational Learning

Organizational learning is the process of knowledge and information interaction within and between organizations to enhance their strengths and improve their adaptability to the environment and is an important way to improve organizational performance (Dodgson, 1993). Organizational learning theory was developed to explore how organizations can maintain a competitive advantage in a changing environment and improve organizational performance (Levitt, & March, 1988). In organizational learning, an organization as a whole learns by interacting with its environment. Through shared values, beliefs, and norms, information can be shared among employees, creating Organizational Memory (OMR) together and influencing individual and organizational activities (Shonubi, Ogundare & Oluleti, 2021). The organization's ability to learn depends primarily on competitive capabilities related to "information processing, information communication, knowledge entitlement, and interdepartmental coordination", but is also influenced by the ability to build trusting relationships and negotiate (Levitt, & March, 1988). Existing research has shown that learning through repetition and practice is one of the key milestones in the construction of competitive capabilities and that organizational learning constitutes a driver of competitive capabilities (Lumpkin, & Lichtenstein, 2005). Through a repeatable effort approach, it can link corporate employees with other resources, thus helping to develop an effective competitive capability-building process. Moreover, as a firm's employees continue to apply their knowledge and skills to operational or strategic issues, the firm's knowledge base expands, ultimately driving competitive capabilities (Levitt, & March, 1988).

In addition, competitive capabilities are embedded in a firm's knowledge and skills and are continually built up through a continuous learning process. Indeed, given the cumulative nature of competitive capability development, the process of enhancement inevitably relies on continuous collective learning. Thus, learning can be seen as a continuous process of adaptation of specific competitive capabilities, a process of adaptation based on experience and up-to-date information, an important way for companies to build and continuously replenish their knowledge base of

technologies, market products and processes, and a basis for developing and improving the broad skill level of their employees. Penrose (2002) proposed the theory of business growth in the 1960s, in which he elaborated that organizational learning. The current environment of economic globalization has also prompted organizations to attach importance to knowledge as a resource, and to use various channels inside and outside the organization to acquire and integrate knowledge, improve the organization's environmental adaptability, and achieve the purpose of enhancing and improving organizational performance. Many studies have also verified the positive correlation between these two variables (Basadur, M.,1997).

2.3.3 Knowledge Management

Although knowledge management has become a rather important research direction in the past few years related to business performance improvement, it is still difficult to find a universally accepted concept. Daniel et al. (2005) through literature review, it is argued that the understanding of knowledge management should include six aspects: orientation towards the development, transfer, and protection of knowledge; continuous learning in the organization; an understanding of the organization as an overall system and the development of an innovative culture to encourage R&D projects. There is a significant correlation between knowledge management and organizational performance, but the existence of a causal relationship has not been very tightly demonstrated (Palacios, Garrigós & Simón, 2006). Zack et al (2009) have claimed that there is a significant correlation between KM and organizational performance, but the existence of a causal relationship has not been very closely demonstrated. To link knowledge management programs and company performance, Firestone proposed an abstract model called "global estimation of benefits", which views KM as a business process that helps companies achieve their goals, and suggests that KM consists of different tasks that affect the business process (Firestone, 2001). Davenport (2001) relates knowledge management activities to intermediate activities that affect financial results. The progress of these activities are found to affect intermediate variables such as project performance measures, indicators of employees' ability to perform knowledge-related tasks, and finally, the generation of ideas and innovations (Liebowitz, 1999).

2.3.4 Organizational Culture

Many studies have highlighted the association between organizational culture and firm performance, with a particular focus on manufacturing and a large number of service industries (Kull Yan & Liu,2014). In this context, organizational culture is generally understood as the values and beliefs shared by the members of an organization, which constitute a pattern of problem-solving behavior. The classification of organizational culture is relatively diverse, for example, Yesil and Kaya (2013) classified organizational culture as clan culture, sub specific culture, market culture, and hierarchical culture (Yesil & Kaya, 2013). On the other hand, Shahzad (2007) considers organizational culture to include culture management, conflict resolution, change management, and employee engagement. The organizational culture, according to this researcher, includes aspects of culture management, conflict resolution, change management, and employee engagement. Different types of organizational cultures have different degrees of influence on organizational performance, for example, the organization's own culture is greater than the influence of national culture (Shahzad Bhatti &, Khalid, 2007). Peters and Waterman (2002), who conducted some of the earliest research in this area, concluded that there is an important link between specific types of culture and superior performance

As early researchers they explicitly made the case for linking organizational culture and business organization, arguing that successful organizations possess characteristics that are characterized by their ability to promote cultural values that are consistent with the firm's chosen strategy. A large reason for the subsequent popularity and rise of organizational culture in management practice is precise that a certain unique organizational culture can lead to superior financial performance. For this reason, Quinn and Cameron (1990) argued that the uniqueness of an organization's culture, while possessing characteristics that are superior and cannot be fully imitated by competitors, is a source of strong competitive advantage for the firm and that, the early distinctive features of organizational culture also serve as a source of performance variability to some extent.

2.3.5. The Results of Past Empirical Studies

To investigate how transformational leadership, organizational learning, knowledge management, and organizational innovation affect organizational performance, Noruzy et al. (2013) conducted an empirical study found that transformational leadership, organizational learning, knowledge management, and organizational innovation all have a positive impact on organizational performance, either directly or indirectly (Noruzy et al., 2013). In their study, organizational learning had the strongest correlation with organizational performance and a complex relationship between the different variables (Fig1). Organizational innovation had a significant impact on organizational performance, and this variable mediates the paths of the other three variables. 55% of the variance in organizational innovation was due to the influence of transformational leadership, organizational learning, and knowledge management, and transformational leadership can indirectly influence innovation through organizational learning and thus organizational performance.

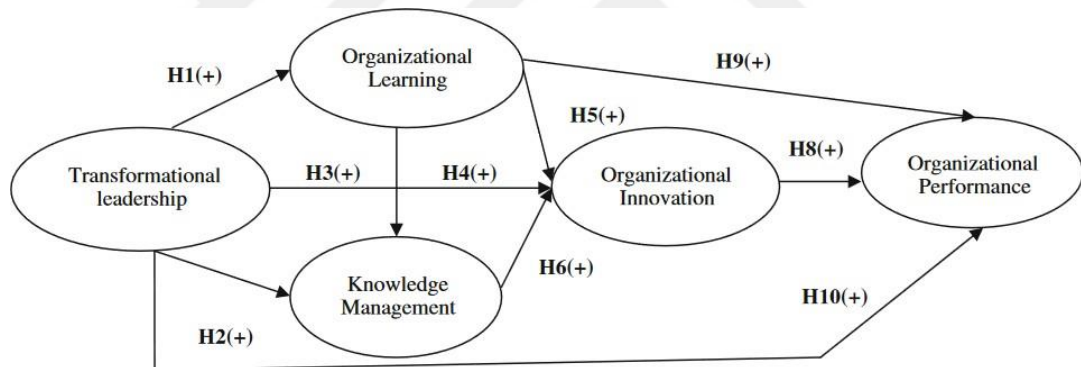


Figure 1: Relations between transformational leadership, organizational learning, knowledge management, organizational innovation, and organizational performance (Adopted from Noruzy, et al., 2013)

Findings of their study were further validated by the study of Montes et al. (2005). Their model of organizational learning, teamwork and organizational innovation was tested and it was concluded that teamwork not only contributed to organizational learning but also positively affected organizational innovation, further indicating that all three can improve organizational performance (Montes Vela & Megías, 2005). Similarly, Nelly (2007) found that organizational learning positively affected organizational performance through the mediating effect of organizational

innovation (Nelly, 2007). In addition, knowledge management also mediated the effect of organizational learning on organizational innovation, and knowledge management affects organizational performance through organizational innovation. The scholar concluded by suggesting that transformational leaders are extremely important in actions to enhance organizational performance and play a key role in enabling individuals and organizations to create, develop, update, and apply knowledge to create the essential capabilities needed to improve organizational performance in manufacturing firms and that leaders should focus on creating an environment in their organizations that facilitates organizational learning and innovation, focus on organizational knowledge management, and maximize the use of innovation resources to achieve improved organizational performance.

There are also more research findings on the pathways of the role of organizational culture in influencing organizational performance. Organizational culture is considered to be an important means of external adaptation and internal integration that can shape the functioning of a firm at both organizational and individual levels, further exerting influence in terms of firm performance. Valuable, scarce, and difficult to imitate resources can shape a company's competitive advantage, and organizational culture has such characteristics. For instance, Maister (2012) found that based on a statistical survey of 15 industries in 15 countries, corporate culture is significantly correlated with financial performance; and in the best companies, the key to success is in corporate culture, which means that corporate culture is the key to business growth.

According to Noe, Hollenbeck, Gerhart, and Wright (2006), corporate culture affects employee competencies, behaviors, and organizational performance, as shown in Figure 2, which is a model of factors affecting organizational performance.

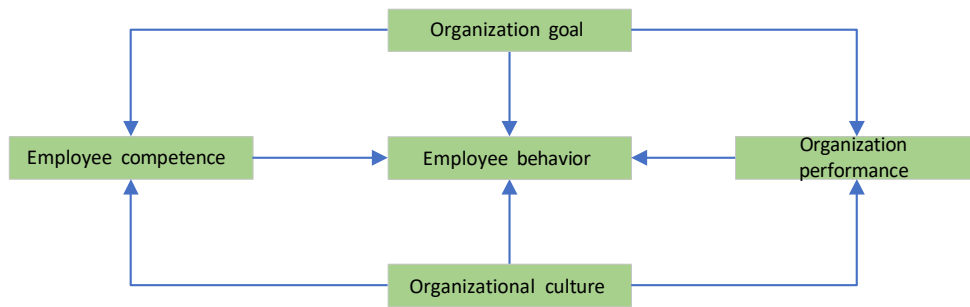


Figure2: A model of factors affecting organizational performance (Adapted from Noe, Hollenbeck, Gerhart, and Wright, 2006)

Arogyaswamy and Byles (1987) also viewed the relationship between corporate culture and organizational performance as a weighted relationship, and depict the organizational culture fit, including internal and external fit, as shown in **Figure 3**. Internal fit represents the cohesiveness and consistency of corporate culture, while external fit advocates consistent beliefs or values that not only lead to better strategy implementation but also influence strategy formation (Arogyaswamy & Byles, 1987).

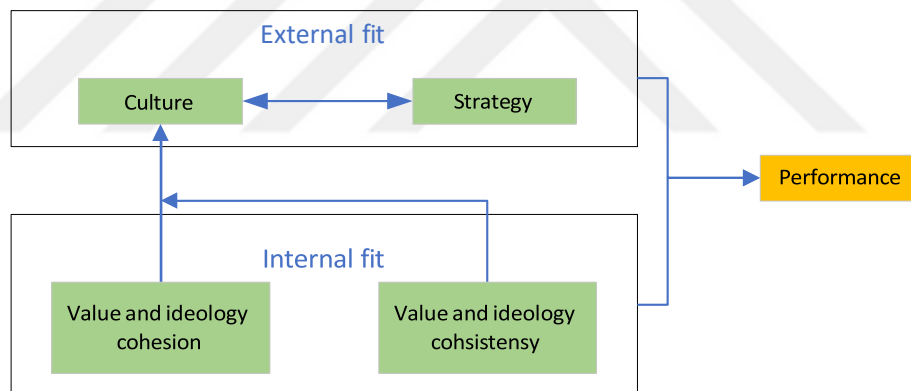


Figure3: External fit, internal fit, and performance (Adapted from Arogyaswamy & Byles, 1987)

2.4. Manufacturing-Oriented Business Performance Models

Gavrea et al. (2007) developed a set of business performance models mainly oriented to manufacturing, which contains both internal environment and external environment dimensions (**Fig3**).

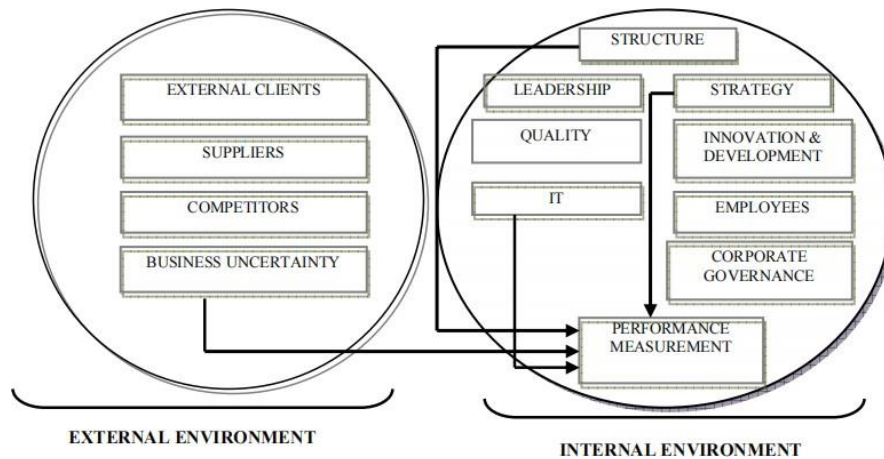


Figure4: Dimensions of the organizational performance model (Adapted from Gavrea et al, 2007)

Specifically, the internal environment dimension includes strategy, structure, performance measurement, information technology, leadership, innovation and development, employees, quality, and corporate governance. The external environment contained four dimensions: suppliers, competitors, and uncertainty of the business environment. In many empirical studies, research on strategy has been divided into two categories: analysis of the impact of strategy on organizational performance and analysis of the relationship between strategy and performance in organizations (Gavrea, Ilie & Stegorean, 2007). The former is represented by Prescott (2007), who found that business strategy has a significant impact on organizational performance and that moderation of the external environment can mitigate the impact of strategy on performance, and the latter is represented by Porter (2006), who compared the relationship between low-cost and differentiation strategies and performance output in organizations. structure variables are quite common in studies related to organizational performance. It is generally measured using firm size, employee age distribution, etc. The performance measurement variable has been the focus of scholarly attention as a key outcome indicator in performance management research.

Verboncu and Zalman (2005) recognized the generation of organizational performance in three dimensions: managerial, economic, and marketing, and argue that having high performance is characterized by high competitiveness, efficiency, and effectiveness (Verboncu & Zalman, 2005) (**Fig5**).

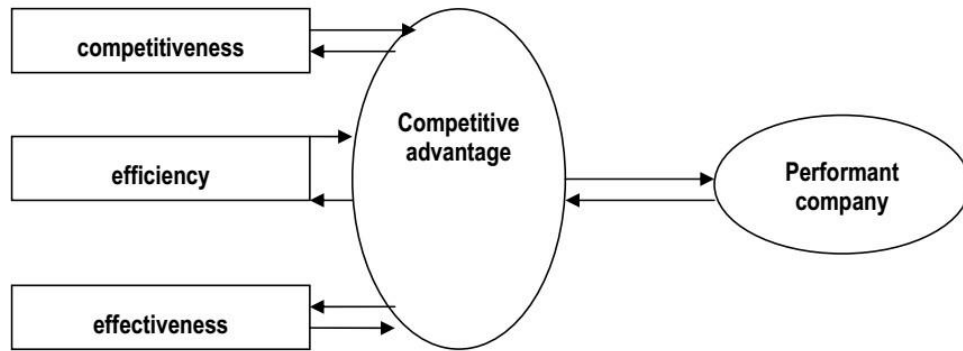


Figure5: Factors that drive performance (Verboncu & Zalman, 2005)

Financial indicators have been the focus of performance measurement research particularly for manufacturing companies until the 1980s, but scholars have come to see the importance of non-financial indicators in performance research as well. Kaplan & Norton (1993) developed a list of 22 financial and non-financial indicators. Some scholars believe that leadership is the most critical factor in determining the success of an organization in reaching its performance goals (Joyce, 2005). The importance of this variable and the impact it has on organizational performance was highlighted by the study conducted by Deshpande et al (1997).

Employees also are key are closely related to organizational performance, and generally, the implementation of management decisions may generate negative feelings such as anger, frustration, and distrust among employees, which may have a negative impact on corporate performance. The key aspect of quality is essentially the extent to which the company is able to meet stakeholder expectations on certain dimensions that have value for them. As for corporate governance, in a study that used a sample of 1500 companies, and found that there is a significant positive relationship between the quality of corporate governance and performance outcomes (Russia & CIS Military Newswire, 2022).

3. AN EMPIRICAL INVESTIGATION OF THE PERFORMANCE INDICATORS IN TURKISH MANUFACTURING SMES

3.1. Proposed Research Model

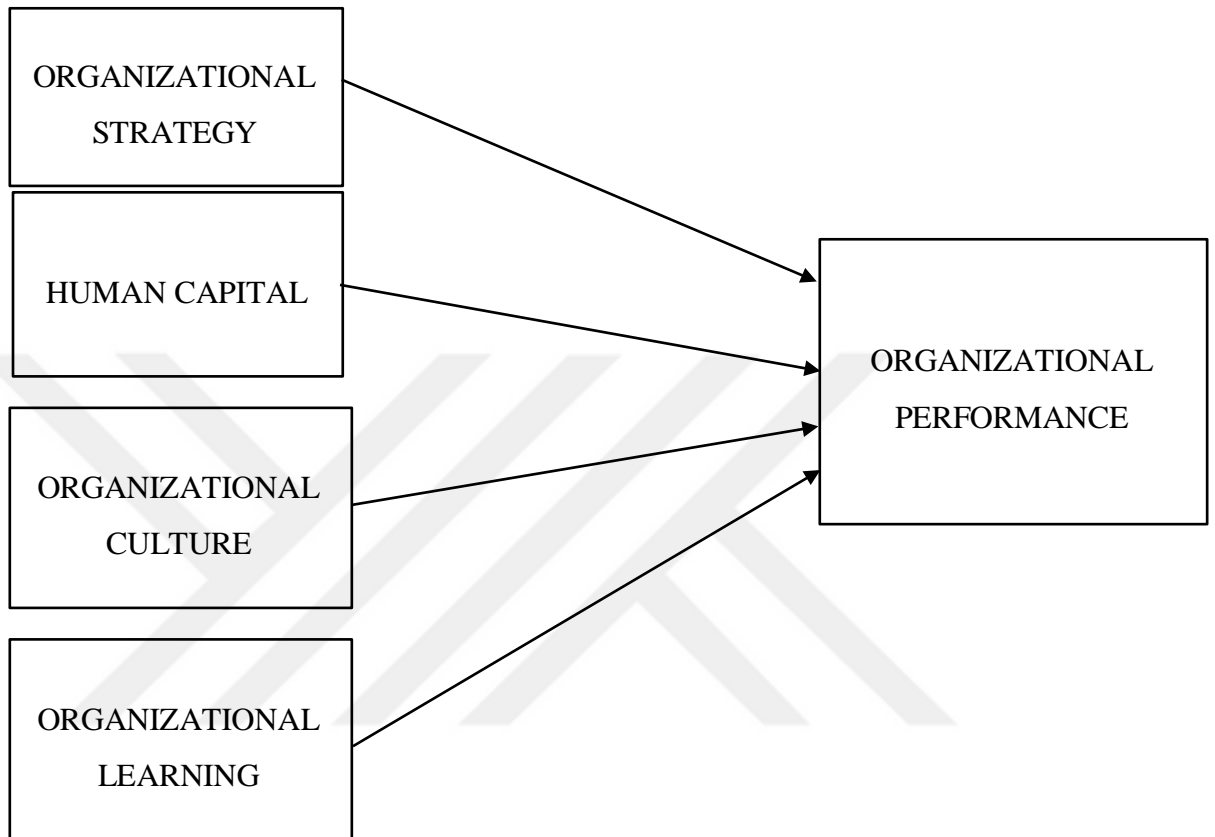


Figure 6: Proposed model of the research

3.1.1. Hypotheses

For investigating the answers for the research questions within the scope of the research, 4 hypotheses are developed tested by the proposed research model:

Hypothesis 1: Organizational strategy is positively associated with organizational performance.

Hypothesis 2: Human capital is positively associated with organizational performance.

Hypothesis 3: Organizational culture is positively associated with organizational performance.

Hypothesis 4: Organizational learning is positively associated with organizational performance.

3.2. Data Collection

For this study, in terms of data sources, primary data is used, due to the unavailability of a database for SMEs from Turkish Manufacturing Industry. For collecting data, survey method is utilized, where questionnaires are distributed to owner/managers and white / blue collar professionals of SMEs.

For target population, SMEs in Istanbul, Bursa, Konya and Ankara are defined as the target population, as SMEs in these cities can be regarded as a representative of SMEs in the country. The sample was drawn from that population using non-probability sampling method.

3.2.1 Sample Size

There is no consensus among researchers about the optimal size in multiple regression analysis. In this study 76 questionnaires are used, collected by Google Survey.

3.2.2. Target Population

This study has the main research objective of investigating the factors in high growth manufacturer SMEs in Türkiye with the empirical evidence from managerial professionals working at SMEs.

3.3. Variables and Measures

Independent Variables:

Organizational Strategy:

Organizational Strategy was measured using seven-items scale developed by (Cho, Ozment & Sink, 2008) and (Naruzy, Majazi, Azdhari, Shirkouhi & Rezazadeh, 2013). This scale aims to determine whether the participants believe that their company will continue to exist forever, and have the belief of the company has a more systematic strategy, more target-oriented, more technological developments, and the company has a strategy. Participants responded to the items related to internality using a five – point scale ranging from 1 (strongly disagree) to 5 (strongly agree). A sample

item was “The rate of introduction of new products or services into the organization has grown rapidly”. The internal consistency reliability of the subscale was a Cronbach alpha of 0.900.

Human Capital:

Human capital was measured by seven items scale based on the work of (Chaudhuri, Chatterjee, Vrontis & Vicentini, 2023). These items were designed to reflect professionals’ perspectives on their companies’ human resource management capability. Respondents were asked to rate the degree to which each statement based on a 5-point scale anchored by 1 (strongly disagree) to 5 (strongly agree) is valid for themselves. A high score indicates a higher level of human capital management capability. The Cronbach’s alpha coefficient for this measure was $\alpha = 0,893$.

Organizational Culture:

Organizational culture was measured using a sixteen items scale based on the work of (Wahjudi, 2016). These items assess participant’s evaluations of power distance, positions, individualism, masculinity, uncertainty avoidance and long-term orientation in their companies and its culture atmosphere. Participants responded to the items related to internality using a five – point scale ranging from 1 (strongly disagree) to 5 (strongly agree). A sample item was “People in higher positions should make most decisions without consulting people in lower”. The internal consistency reliability of the subscale was a Cronbach alpha of 0.809.

Organizational Learning:

Organizational learning was measured by six items scale developed by (Cho, Ozment & Sink, 2008). This scale aims to determine whether firms have any processes of integrating different sources, converting competitive intelligence and acquiring & exchanging knowledge about business partners. Participants responded to the items related to internality using a five – point scale ranging from 1 (strongly disagree) to 5 (strongly agree). The Cronbach’s alpha for the six items was 0,871.

Dependent Variable:

Organizational Performance:

As the dependent variable, organizational performance was measured using four items based on the work of (Cho, Ozment & Sink, 2008). These items assess participant's evaluations of how well their firms in overall performance of profitability, sales and services to customers. Professionals responded to the items with five-point scale construct from 1 (poor) to 5 (excellent). The Cronbach's alpha for the four items was 0,780.

3.4. Results of Reliability and Validity Analyses

Factor analysis refers to "a type of analysis used to discern the underlying dimensions or regularity in phenomena", with "purpose to summarize the information contained in a large number of variables into a smaller number of factors" (Zikmund,1997).

The Cronbach Alpha technique is employed to conduct the reliability analysis in this study. The Cronbach alpha value represents a factor's total reliability score (Durmus et al., 2011), or "if the individual items or indicators of the scale are measuring the same construct and thus highly intercorrelated" (Yildirim, 2011). If the Cronbach alpha value is more than 0.70, the scale is regarded "reliable" (Durmuş et al., 2011). The sections that follow in this chapter show the results of the reliability tests for both independent and dependent variables. Following the independent variable factor analyses, the dependent variable organizational performance is subjected to reliability analysis. The Keiser-Meyer-Olkin measure of sample adequacy is utilized for the reliability tests, while the Bartlett test of sphericity is employed to evaluate the appropriateness.

3.4.1. Factor Analysis for Organizational Strategy

Here, the KMO and Bartlett and reliability tests are applied to all the survey items of organizational strategy. We started the factor analysis for organizational strategy with 9 survey item, but excluded 1 item as a result of principal component analysis. As the results of the factor and reliability analyses are highly satisfactory, (KMO = 0.781, Cronbach α = 0,864), the analysis is proceeded with the

factor and reliability analyses of separate components of organizational strategy.

Table1: KMO, Bartlett's and reliability test scores for of organizational strategy

KMO and Bartlett's Test

| | | |
|--|--------------------|---------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | ,781 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 388,323 |
| | df | 55 |
| | Sig. | ,000 |

Table 2: Results of factor analysis for organizational strategy

| Factor Name | Survey Question | Factor Loadings | Total Variance Explained (%) | Reliability |
|--------------------------------|--|-----------------|------------------------------|-------------|
| Organizational Strategy | <ul style="list-style-type: none"> The rate of introduction of new products or services into the organization has grown rapidly. | 0,882 | 66,138 | 0,864 |
| | <ul style="list-style-type: none"> The rate of introduction of new methods of production or delivery of services into the organization has grown rapidly. | 0,878 | | |
| | <ul style="list-style-type: none"> The field within which the firm currently conducts our business is: Narrow (related areas with prospect of change) [1 2 3 4 5] Broad (diversified and continuing to develop) [1 2 3 4 5] | 0,841 | | |
| | <ul style="list-style-type: none"> The main focus of concern in relation to the garage's technological process is: | 0,728 | | |

| | | | | |
|--|--|--|--|--|
| | <p>Having cost-efficient technologies [1 2 3 4 5]</p> <p>Having flexible and innovative technologies [1 2 3 4 5]</p> <ul style="list-style-type: none"> • The objectives of this organization are very well-known to everybody working here. • Everybody working in this garage influences the way to work and the objectives of the firm. • Everybody in this organization freely contributes his/her points of view about how to run it smoothly. | <p>0,916</p> <p>0,663</p> <p>0,569</p> | | |
|--|--|--|--|--|

3.4.2. Factor analysis for Human Capital

For this analysis, the KMO and Bartlett and reliability tests are applied to all the survey items of human capital. We started the factor analysis for this variable with 8 survey items, but excluded 1 item as a result of principal component analysis.

As the results of the factor and reliability analyses are highly satisfactory, (KMO = 0.813, Cronbach α = 0,893), the analysis is proceeded with the factor and reliability analyses of separate components of human capital.

Table 3: KMO, Bartlett’s and reliability test scores for of human capital

| KMO and Bartlett's Test | | |
|--|--------------------|---------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | ,813 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 415,720 |
| | df | 55 |
| | Sig. | ,000 |

Table 4: Results of factor analysis for human capital

| Factor Name | Survey Question | Factor Loadings | Total Variance Explained (%) | Reliability |
|----------------------|--|-----------------|------------------------------|-------------|
| Human Capital | Human capital of an enterprise is the most valuable asset | 0,874 | 71,887 | 0,893 |
| | Employees’ knowledge and skills both help in developing human capital of an enterprise | 0,841 | | |
| | I believe that human creativity helps in developing innovative products | ,837 | | |
| | I believe both sharing and acquiring knowledge is important in developing human capital | 0,802 | | |
| | Well-developed human capital helps improving innovation capability for an enterprise | 0,788 | | |
| | I believe that trained employees can help sharing knowledge efficiently using digital means. | 0,683 | | |

| | | | |
|---|------|--|--|
| I believe that human capital includes all the business abilities of the employees | ,558 | | |
|---|------|--|--|

3.4.3. Factor analysis for Organizational Culture

Here, the KMO and Bartlett and reliability tests are applied to all the survey items of organizational culture. We started the factor analysis for organizational strategy with 18 survey items, but excluded 2 items as a result of principal component analysis.

As the results of the factor and reliability analyses are highly satisfactory, (KMO = 0.727, Cronbach α = 0,809), the analysis is proceeded with the factor and reliability analyses of separate components of organizational culture.

Table 5: KMO, Bartlett's and reliability test scores for of organizational culture

| | | |
|--|--------------------|---------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | ,727 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 835,910 |
| | df | 190 |
| | Sig. | ,000 |

Table 6: Results of factor analysis for organizational culture

| Factor Name | Survey Question | Factor Loadings | Total Variance Explained (%) | Reliability |
|-------------|--|-----------------|------------------------------|-------------|
| | <ul style="list-style-type: none"> • People in higher positions should make most decisions without consulting people in lower | 0,807 | | |
| | <ul style="list-style-type: none"> • People in higher positions should avoid social | 0,798 | | |

| | | | | |
|-------------------------------|--|-------|--------|-------|
| Organizational Culture | interaction with people in lower positions | | | |
| | • People in lower positions should not disagree with decisions by people in higher positions | 0,824 | | |
| | • People in higher positions should not delegate important tasks to people in lower positions | 0,629 | | |
| | • Each employee is encouraged to realize his or her own unique potential | 0,808 | | |
| | • Employees with good ideas makes sure management knows the idea was theirs. | 0,577 | 67,680 | 0,809 |
| | • Our company encourages employees to solve their own problems | 0,680 | | |
| | • In our company important positions are more designated for men | 0,705 | | |
| | • Men usually solve problems with logical analysis; women usually solve problems with intuition. | 0,936 | | |
| | • It is more important for men to have a professional career than it is for women | 0,600 | | |

| | | | |
|--|-------|--|--|
| <ul style="list-style-type: none"> • Our company writes with detailed instructions and procedures for everyone | 0,928 | | |
| <ul style="list-style-type: none"> • Our company writes all the rules and regulations clearly so that everyone knows what is expected | 0,691 | | |
| <ul style="list-style-type: none"> • In our company standard operating procedure is considered a very important | 0,794 | | |
| <ul style="list-style-type: none"> • Our company continues fight despite facing tough competition | 0,729 | | |
| <ul style="list-style-type: none"> • Our company upholds its vision, mission, goals, and corporate values | 0,718 | | |
| <ul style="list-style-type: none"> • Our company conducts long-term planning | 0,661 | | |

3.4.4. Factor analysis for Organizational Learning

Here, the KMO and Bartlett and reliability tests are applied to all the survey items of organizational learning. We started the factor analysis for organizational learning with 8 survey items, but excluded 2 items as a result of principal component analysis. As the results of the factor and reliability analyses are highly satisfactory, (KMO = 0.769, Cronbach α = 0,871), the analysis is proceeded with the factor and reliability analyses of separate components of organizational learning.

Table 7: KMO, Bartlett's and reliability test scores for of organizational learning

| | | |
|--|--------------------|---------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | ,769 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 343,812 |
| | df | 36 |
| | Sig. | ,000 |

Table 8: Results of factor analysis for organizational learning

| Factor Name | Survey Question | Factor Loadings | Total Variance Explained (%) | Reliability |
|--------------------------------|---|------------------------|-------------------------------------|--------------------|
| Organizational Learning | The organization has learned or acquired much new and relevant knowledge over the last three years | 0,794 | 65,234 | 0,871 |
| | Organizational members have acquired some critical capacities and skills over the last three years. | 0,822 | | |
| | The organization's performance has been influenced by new learning it has acquired over the last three years. | 0,830 | | |
| | The organization is a learning organization. | 0,738 | | |
| | Our firm has processes for acquiring knowledge about our business partners | 0,955 | | |
| | Our firm has processes for exchanging knowledge with our business partners | 0,949 | | |

3.4.5. Factor Analysis for Organizational Performance

As stated in the model, 4 items are namely:

- i) Profitability
- ii) Sales Growth
- iii) Customer Satisfaction
- iv) Overall Performance

are used in the study, to measure the dependent variable of organizational performance, all the items measured high growth in manufacturer SMEs, in the model.

Before analyzing the reliability of the factor of organizational performance factor, Keiser-Meyer-Olkin measure of sampling adequacy and Bartlett test of sphericity are conducted. The test results of these analyses (KMO=0,672, approx. chi-square =104,307, p=0,000) are satisfactory, principal component analysis, varimax rotation and reliability tests, to the data set, are applied. Cronbach α score = 0.780 shows that the factor has very high internal reliability and the results of the principal component analysis illustrates that, 4 out of 4 items (n=4) are contributing to the factor of SME performance, therefore, all five items are retained in the analysis.

Table 9: KMO and Bartlett’s test scores for organizational performance

| KMO and Bartlett's Test | | |
|--|--------------------|---------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | ,672 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 104,307 |
| | df | 6 |
| | Sig. | ,000 |

Table 10: Results of factor analysis for organizational performance

| Factor Name | Survey Question | Factor Loadings | Total Variance Explained (%) | Reliability |
|-----------------------------------|-------------------------|-----------------|------------------------------|-------------|
| Organizational Performance | • Profitability | 0,803 | 60,400 | 0,780 |
| | • Sales Growth | 0,822 | | |
| | • Customer Satisfaction | 0,794 | | |
| | • Overall Performance | 0,738 | | |

3.5. Results of Regression Analyses

The data collected by the survey instrument is analyzed by using SPSS 19 program. As the hypotheses which are tested by the model involved analyses of the relationships between different indicators of SME performance, both simple and multiple regression analyses are used to test the model.

Simple regression refers to the “the regression model with a single independent variable, also known as bivariate regression” (Hair, et.al, 2006: 195), while multiple regression, is “the regression model with two or more independent variables” (Hair, et.al, 2006, p.198). The goal of multiple regression analysis is to predict changes in the dependent variable as a result of changes in the independent variables. Thus, when the research problem contains a single metric dependent variable that is assumed to be associated to two or more metric independent variables, multiple regression is the suitable approach of analysis (Hair et al, 2006, p. 199). Multiple regression analysis necessitates a theoretical relationship between independent and dependent variables.

The beta coefficient is utilized in multiple regression analysis to allow for a “direct comparison between coefficients as to their relative explanatory power of the dependent variable” (Hair, et.al., 2006, p 199). In this analysis, the coefficient of determination, also known as R square refers to “the measure of variance to the dependent variable about its mean that is explained by the independent, or predictor, variables” (Hair, et.al, 2006, p.199).

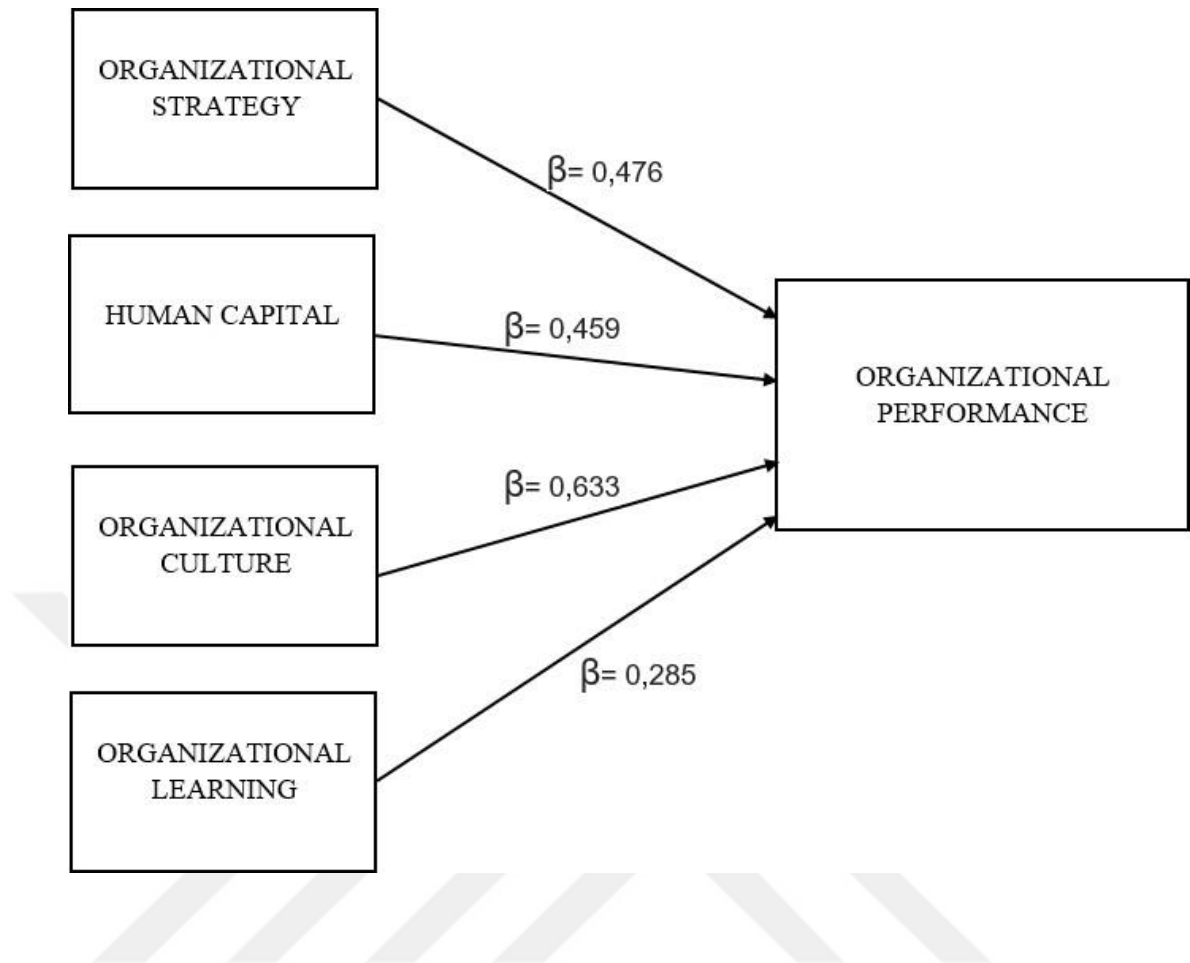


Figure 7: Final Model of the Research

H1: Organizational strategy is positively associated with organizational performance.

For testing hypothesis 1, regression analysis with independent variable of organizational strategy and dependent variable of organizational performance is conducted.

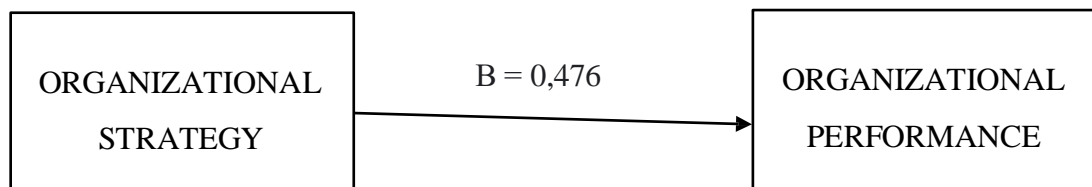


Figure 8: Empirical model for the relationship between organizational strategy and organizational performance

As shown in Figure7, the results of the multiple regression analysis show a positive and statistically significant correlation ($\beta = 0,476$) between the organizational strategy

and organizational performance, thus, it can be stated that, there exists a positive and statistically significant relationship between the dependent and independent variable, which also confirms hypothesis 1.

Table 11: Results of regression analysis for the correlation of organizational strategy with organizational performance

| Dependent Variable | Organizational Performance | | |
|-------------------------|----------------------------|---------|-------|
| Independent Variable | Beta | t-value | Sig. |
| Organizational Strategy | 0,476 | 5,305 | 0,000 |
| R Square = 0,256 | | | |

H2: Human capital is positively associated with organizational performance.

For testing hypothesis 2, regression analysis with independent variable of human capital and dependent variable of organizational performance is conducted.

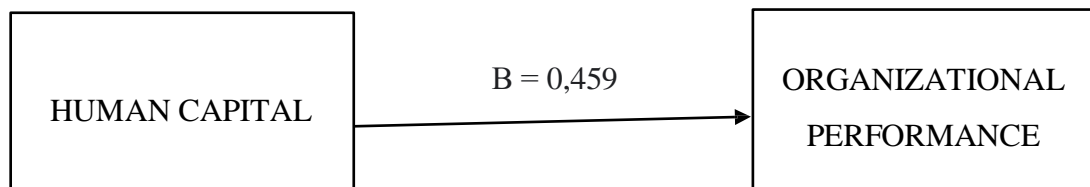


Figure 9: Empirical model for the relationship between human capital and organizational performance

As shown in Figure8, the results of the single regression analysis show a positive and statistically significant correlation ($\beta= 0,459$) between the human capital and organizational performance, thus, it can be stated that, there exists a positive and statistically significant relationship between the dependent and independent variable. which also confirms hypothesis 2.

Table 12: Results of regression analysis for the correlation of human capital with organizational performance

| Dependent Variable | Organizational Performance | | |
|----------------------|----------------------------|---------|-------|
| Independent Variable | Beta | t-value | Sig. |
| Human Capital | 0,459 | 4,988 | 0,000 |
| R Square = 0,160 | | | |

H3: Organizational culture is positively associated with organizational performance

For testing hypothesis 3, regression analysis with independent variable of organizational culture and dependent variable of organizational performance is conducted.

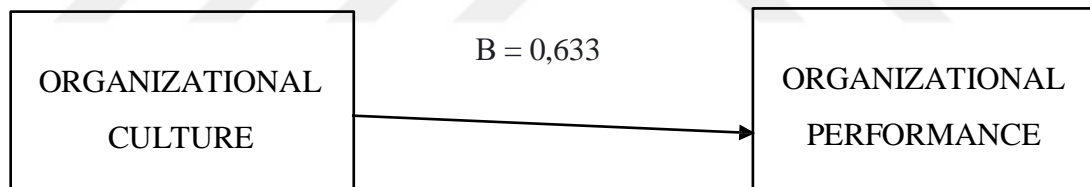


Figure 10: Empirical model for the relationship between organizational culture and organizational performance

As shown in Figure9, the results of the single regression analysis show a positive and statistically significant correlation ($\beta = 0,633$) between the organizational culture and organizational performance, thus, it can be stated that, there exists a positive and statistically significant relationship between the dependent and independent variable, which also confirms hypothesis 3, in line with the findings of the previous literature (Didik, 2016), (Hofstede& Minkov,2010)

Table 13: Results of regression analysis for the correlation of organizational culture with organizational performance

| Dependent Variable | Organizational Performance | | |
|------------------------|----------------------------|---------|-------|
| Independent Variable | Beta | t-value | Sig. |
| Organizational Culture | 0,633 | 3,703 | 0,000 |
| R Square = 0,473 | | | |

H4: Organizational learning is positively associated with organizational performance.

For testing hypothesis 4, regression analysis with independent variable of organizational learning and dependent variable of organizational performance.

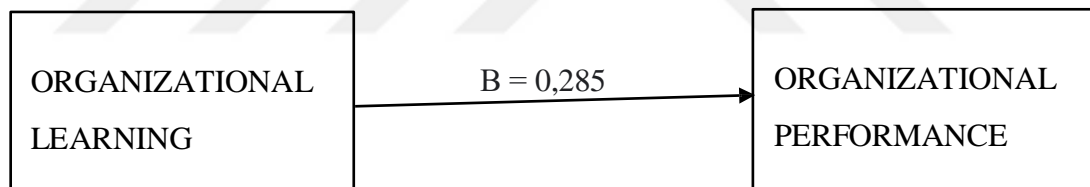


Figure 11: Empirical model for the relationship between organizational learning and organizational performance

The results of the multiple regression analysis show a positive and statistically significant correlation ($\beta = 0,285$) between the organizational learning and organizational performance. Thus it can be stated that, there exists a positive and statistically significant relationship between the dependent and independent variable.

Table 14: Results of regression analysis for the correlation of organizational learning with organizational performance

| Dependent Variable | Organizational Performance | | |
|-----------------------------|-----------------------------------|----------------|-------------|
| Independent Variable | Beta | t-value | Sig. |
| Organizational Learning | 0,285 | 5,706 | 0,000 |
| R Square = 0,234 | | | |

3.6. Discussion of Findings

Previous research studies have indicated the importance of several factors, including organizational culture, human capital, innovation and learning as key determinants of organizational performance in SMEs (Noruzy et al., 2013, Nelly, 2007; Montes et al, 2005). Following these leading studies, our study aimed to test four independent variables with respect to their associations with organizational performance in manufacturing SMEs operating in Türkiye.

The findings of the hypothesis tests produced some expected and unexpected results. First and foremost, the results of the regression analysis regarding organizational strategy and organizational performance indicate that organizational strategy is positively correlated with organizational performance. This result confirms that, any organization which aims to reach a higher performance level should employ strategic proactivity, which is parallel to its vision and mission.

The result of the second regression analysis underlined that human capital is positively correlated with the organizational performance. This finding implies that human capital is always going to be one of main pillars of higher performance in SMEs. And that an experienced and educated workforce is integral to organizational performance. This finding is also in line with the findings of the several empirical studies by Chen et al (2014), Costa et al. (2014), Pearson et al. (2015), Edvinsson & Malone (1997), Lucas (1990), Hsu and Fang (2009) and Grimaldi et al. (2012).

The third result of the regression analyses highlighted that organizational culture is another important determinant of organizational performance in manufacturing SMEs. Additionally, the highest correlation coefficient was found for this independent variable, indicating that organizations should create their unique cultural values for achieving high performance levels.

Lastly and surprisingly, the final independent variable organizational learning came out with a comparably low correlation coefficient (0,285). This result, albeit to a lower extent, confirms the previous findings of Cho, Ozment & Sink (2008) and indicates that, even if organizational learning is positively correlated with organizational performance, manufacturing SMEs in Türkiye do not focus too much on organizational learning. It might also be discussed as one of the reasons of work force quality problems in manufacturing enterprises in Türkiye.

CONCLUSION

Small and medium sized enterprises and particularly manufacturing SMEs are the backbone of Turkish economy, from many dimensions. The current study was aimed to identify the nature of the relationships between the strategic management, organizational culture, human capital and organizational learning factors on the overall performance of these business units. The proposed research model and the empirical results show that, all these four indicators have a positive impact on SME performance, which support prior conceptual models and empirical studies previously conducted in different economies and industries.

However, when looked in detail, the highest degree of association is found for organizational culture whereas the lowest score is found for organizational learning. These results indicate that, for the Turkish context, culture has a stronger influence on the successful performance results than other three factors analyzed in the study. Also, organizational learning is found to have the comparably weakest link with firm performance.

These findings can present important theoretical and practical implications for academics, SME owners/managers and the regulatory bodies responsible from the development of manufacturing firms in Türkiye. For instance, scholars have associated organizational learning with the development of competitive capabilities of firms, which eventually lead to increased performance. Thus, if the Turkish SMEs are weak in building their leaning and knowledge management systems, this would mean that their competitiveness could be behind their local and global rivals. For that reason, each firm should take the necessary actions to develop and implement such models in order not to have low performance levels. These actions should also be guided formally by the governmental units who are responsible from the development of the manufacturing industry in Türkiye.

REFERENCES

- Abashah, A. (2021). External and Internal Environmental Scanning Towards Strategic Design and Manufacturing a New Safety Car. *Turkish Journal of Computer and Mathematics Education (TURCOMAT)*, 12(3), 3505-3508.
- Al-Tit, A. A. (2017). Factors Affecting the Organizational Performance of Manufacturing Firms. *International Journal of Engineering Business Management*, 9, 1847979017712628.
- Arogyaswamy, B., & Byles, C. M. (1987). Organizational Culture: Internal and External Fits. *Journal of Management*, 13(4), 647-658.
- Atitlan T., Palin, O. K., Orc, N., & Mutlu, M. M. (2018). The Analysis of Turkish Leather Industry's Competitiveness. *Annals of The University of Oradea. Fascicle of Textiles, Leatherwork*, 19(2).
- Aydemir, S. S. (2021). Industrial Revolution and Development as A Model in The Development of Turkish Industry During the Ottoman Empire and The Foundation Period of the Republic. *Sosyolojik Düşün*, 6(1), 66-88.
- Baer, M., & Frese, M. (2003). Innovation Is Not Enough: Climates for Initiative and Psychological Safety, Process Innovations, And Firm Performance. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, 24(1), 45-68.
- Banker, R. D., Kauffman, R. J., & Morey, R. C. (1990). Measuring Gains in Operational Efficiency from Information Technology: A Study of The Positran Deployment At Hardee's Inc. *Journal Of Management Information Systems*, 7(2), 29-54.
- Basadur, M. (1997). Organizational Development Interventions for Enhancing Creativity in The Workplace. *The Journal of Creative Behavior*, 31(1), 59-72.
- Bass, B. M., & Bass Bernard, M. (1985). Leadership and Performance Beyond Expectations.
- Becker, G. S. (2009). *Human Capital: A Theoretical and Empirical Analysis, With Special Reference to Education*. University of Chicago Press.
- Beiner, S., Schmid, M. M., & Wanzenried, G. (2011). Product Market Competition, Managerial Incentives and Firm Valuation. *European Financial Management*, 17(2), 331-366.
- Bharadwaj, A. S. (2000). A Resource-Based Perspective On Information Technology Capability and Firm Performance: An Empirical Investigation. *MIS Quarterly*, 169-196.
- Calmasur, G., & Aysin, M. E. (2020). Regional Technological Learning in Turkish Cement Industry. *Eurasian Journal of Economics and Finance*, 8(4), 204-216.

- Camisón, C., & Villar-López, A. (2014). Organizational Innovation as an Enabler of Technological Innovation Capabilities and Firm Performance. *Journal of Business Research*, 67(1), 2891-2902.
- Carnabuci, G., & Operti, E. (2013). Where Do Firms' Recombinant Capabilities Come From? Intraorganizational Networks, Knowledge, And Firms' Ability to Innovate Through Technological Recombination. *Strategic Management Journal*, 34(13), 1591-1613.
- Child, J. (1972). Organizational Structure, Environment and Performance: The Role of Strategic Choice. *Sociology*, 6(1), 1-22.
- Choi, H., Shin, J., & Hwang, W. S. (2018). Two Faces of Scientific Knowledge in The External Technology Search Process. *Technological Forecasting and Social Change*, 133, 41-50.
- Clemons, E. K., & Row, M. C. (1991). Sustaining IT Advantage: The Role of Structural Differences. *MIS Quarterly*, 275-292.
- Daniel Sherman, J., Berkowitz, D., & Souder, W. E. (2005). New Product Development Performance and The Interaction of Cross-Functional Integration and Knowledge Management. *Journal of Product Innovation Management*, 22(5), 399-411.
- Davenport, T. H., & Dörpel, S. C. (2001). The Rise of Knowledge Towards Attention Management. *Journal of Knowledge Management*, 5(3), 212-222.
- De Hoyos, R. E., & Medvedev, D. (2011). Poverty Effects of Higher Food Prices: A Global Perspective. *Review of Development Economics*, 15(3), 387-402.
- Deshpande, R., Farley, J. U., & Webster, F. E. (1997). *Factors Affecting Organizational Performance: A Five-Country Comparison* (No. 97-108). Cambridge, MA: Marketing Science Institute.
- Dodgson, M. (1993). Organizational Learning: A Review of Some Literatures. *Organization Studies*, 14(3), 375-394.
- Drucker, P. F. (2002). The Discipline of Innovation. *Harvard Business Review*, 80(8), 95-102.
- Duran, B., & Kanat, K. B. (2020). Ak Party Years in Turkey Domestic and Foreign Policy. *Ak Party Years in Turkey Domestic and Foreign Policy*.
- Eksi, H. I., Senturk, M., & Yildirim, S. H. (2012). Sensitivity of Stock Market Indices to Oil Prices: Evidence from Manufacturing Sub-Sectors in Turkey. *Panoeconomicus*, 59(4), 463-474.
- Ergüven, E. (2018). The Effects of Internationalization of Production On the Turkish Manufacturing Industry: An Applied Study On Foreign-Invested Manufacturer-Exporters. *Beykoz Akademi Dergisi*, 6(2), 57-80.

- Evceen, G. (2019). *Contribution of Industrial Designers to The Food Development Process: A Review On Chocolate Design in A Leading Turkish Confectionery Manufacturer* (Master's Thesis, Middle East Technical University).
- Firestone, J. M. (2001). Estimating Benefits of Knowledge Management Initiatives: Concepts, Methodology and Tools. *Journal of The KMCI*, 1(3), 110-129.
- Fleming, L., & Sorenson, O. (2004). Science as A Map in Technological Search. *Strategic Management Journal*, 25(8-9), 909-928.
- Franco-Santos, M., Kennerley, M., Micheli, P., Martinez, V., Mason, S., Marr, B., ... & Neely, A. (2007). Towards A Definition of a Business Performance Measurement System. *International Journal of Operations & Production Management*, 27(8), 784-801.
- Gavrea, C., Ilies, L., & Stegorean, R. (2011). Determinants of Organizational Performance: The Case of Romania. *Management & Marketing*, 6(2).
- Gergin, Z., Üney-Yüksektepe, F., Güneş Gençyılmaz, M., Tülin Aktin, A., Gülen, K. G., İlhan, D. A., ... & Çavdarlı, A. İ. (2019). Industry 4.0 Scorecard of Turkish Smes. In *Proceedings of the International Symposium for Production Research 2018 18* (Pp. 426-437). Springer International Publishing.
- Goker, N., Dursun, M., & Albayrak, Y. E. (2020). Agile Supplier Evaluation Using a Fuzzy Decision Making Procedure Based On Fuzzy Measure and Fuzzy Integral. In *Intelligent and Fuzzy Techniques in Big Data Analytics and Decision Making: Proceedings of The INFUS 2019 Conference, Istanbul, Turkey, July 23-25, 2019* (Pp. 457-463). Springer International Publishing.
- Gomm, M. L. (2010). Supply Chain Finance: Applying Finance Theory to Supply Chain Management to Enhance Finance in Supply Chains. *International Journal of Logistics: Research and Applications*, 13(2), 133-142.
- Greenaway, D., Mahabir, A., & Milner, C. (2008). Has China Displaced Other Asian Countries' Exports?. *China Economic Review*, 19(2), 152-169.
- Henderson, J., & Venkatraman, N. (1990). *Strategic Alignment: A Model for Organizational Transformation Via Information Technology* (Pp. 3223-3290). New York: Oxford University Press.
- İlhan, Ö. (2019). *Technological Transformations: The Case of Industry 4.0 In Turkish Pharmaceutical Industry* (Master's Thesis, Middle East Technical University).
- Januszewski, S. I., Köke, J., & Winter, J. K. (2002). Product Market Competition, Corporate Governance and Firm Performance: An Empirical Analysis for Germany. *Research in Economics*, 56(3), 299-332.
- Joyce, W. F. (2005). What Really Works. *Organizational Dynamics*, 2(34), 118-129.
- Jun, Z., & Shengtao, M. (2009, June). Performance-Only Measurement of Service Quality: An Empirical Study in Chinese Express Industry. In *2009 6th*

International Conference On Service Systems and Service Management (Pp. 831-836). IEEE.

- Karatop, B., Kubat, C., & Uygun, Ö. (2018). Determining The Strategies On Turkish Automotive Sector Using Fuzzy AHP Based On The SWOT Analysis. *Sakarya University Journal of Science*, 22(5), 1314-1325.
- Kasapoglu, D. (2022). Techno-Geopolitics and The Turkish Way of Drone Warfare. *Atlantic Council, Issue Brief*.
- Kaspın, S. (2021). Identifying Factors Leading to Gold Losses During the Fabrication Process and Assessing Its Impact On the Smes Jewellery Industry. *Turkish Journal of Computer and Mathematics Education (TURCOMAT)*, 12(7), 975-985.
- Kesdi, N. B. (2019). *New Product Development in The Turkish Furniture Industry: Experiences of In-House Industrial Designers* (Master's Thesis, Middle East Technical University).
- Kirenci, A. I. (2021). The Wall: The Making and Unmaking of the Turkish-Syrian Border.
- Kull, T. J., Yan, T., Liu, Z., & Wacker, J. G. (2014). The Moderation of Lean Manufacturing Effectiveness by Dimensions of National Culture: Testing Practice-Culture Congruence Hypotheses. *International Journal of Production Economics*, 153, 1-12.
- Lee, Y. S., Seo, Y. W., & Siemsen, E. (2018). Running Behavioral Operations Experiments Using Amazon's Mechanical Turk. *Production and Operations Management*, 27(5), 973-989.
- Lebas, M., & Euske, K. (2002). A Conceptual and Operational Delineation of Performance. *Business Performance Measurement: Theory and Practice*, 65, 79.
- Levitt, B., & March, J. G. (1988). Organizational Learning. *Annual Review of Sociology*, 14(1), 319-338.
- Liebowitz, J. (Ed.). (1999). *Knowledge Management Handbook*. CRC Press.
- Liu, K. (2018). Chinese Manufacturing in The Shadow of the China–US Trade War. *Economic Affairs*, 38(3), 307-324.
- Lumpkin, G. T., & Lichtenstein, B. B. (2005). The Role of Organizational Learning in The Opportunity–Recognition Process. *Entrepreneurship Theory and Practice*, 29(4), 451-472.
- Luthans, F., & Youssef, C. M. (2004). Human, Social, And Now Positive Psychological Capital Management: Investing in People for Competitive Advantage.

- Lynch, R. L., & Cross, K. F. (1991). *Measure Up! Yardsticks for Continuous Improvement*, Basilblackwell.
- Mayer, R. C., & Gavin, M. B. (2005). Trust In Management And Performance: Who Minds The Shop While The Employees Watch The Boss?. *Academy of Management Journal*, 48(5), 874-888.
- Mevlutoglu, A. (2017). Commentary On Assessing the Turkish Defense Industry: Structural Issues and Major Challenges. *Defence Studies*, 17(3), 282-294.
- Mohr, J., & Spekman, R. (1994). Characteristics of Partnership Success: Partnership Attributes, Communication Behavior, And Conflict Resolution Techniques. *Strategic Management Journal*, 15(2), 135-152.
- Montes, J. L. I., Vela, F. L. G., & Megías, M. G. (2005, May). Supporting Social Organization Modelling in Cooperative Work Using Patterns. In *International Conference On Computer Supported Cooperative Work in Design* (Pp. 112-121). Berlin, Heidelberg: Springer Berlin Heidelberg.
- Neely, A. D., Adams, C., & Kennerley, M. (2002). *The Performance Prism: The Scorecard for Measuring and Managing Business Success* (Pp. 159-160). London: Prentice Hall Financial Times.
- Noe, R., Hollenbeck, J., Gerhart, B., & Wright, P. (2006). *Human Resources Management: Gaining A Competitive Advantage, Tenth Global Edition*. New York, MA: Mcgraw-Hill Education.
- Noruzi, A., Dalfard, V. M., Azhdari, B., Nazari-Shirkouhi, S., & Rezazadeh, A. (2013). Relations Between Transformational Leadership, Organizational Learning, Knowledge Management, Organizational Innovation, And Organizational Performance: An Empirical Investigation of Manufacturing Firms. *The International Journal of Advanced Manufacturing Technology*, 64, 1073-1085.
- Nurani, N. (2021). The Protection of Brand Rights For The Knitting Manufacturer Industry In The Pandemic Era Of Covid-19 Case Study In Kampung Rajut Binong Jati Bandung Raya. *Turkish Journal of Computer and Mathematics Education (TURCOMAT)*, 12(11), 1184-1190.
- Ozer, M., & Zhang, W. (2015). The Effects of Geographic and Network Ties On Exploitative and Exploratory Product Innovation. *Strategic Management Journal*, 36(7), 1105-1114.
- Ozturk, M., & Agan, Y. (2017). Determinants of Industrial Production in Turkey. *Journal of Economics and Financial Analysis*, 1(2), 1-16.
- Palacios Marqués, D., & José Garrigós Simón, F. (2006). The Effect of Knowledge Management Practices On Firm Performance. *Journal of Knowledge Management*, 10(3), 143-156.

- Para-González, L., Jiménez-Jiménez, D., & Martínez-Lorente, A. R. (2018). Exploring The Mediating Effects Between Transformational Leadership and Organizational Performance. *Employee Relations*, 40(2), 412-432.
- Penrose, E. T., & Pitelis, C. (Eds.). (2002). *The Growth of the Firm: The Legacy Of Edith Penrose*. Oxford University Press, USA.
- Petrőcz, J., & Babos, T. (2021). Turkey and Africa Connections Focused on the Military Industry. *Journal of Central and Eastern European African Studies*, 1(4), 68-81.
- Pfeffer, J. (1998). *The Human Equation: Building Profits By Putting People First*. Harvard Business Press.
- Polat, H. (2011). Manufacturing Industry in Economy of Turkey. *Dicle Üniversitesi İktisadi Ve İdari Bilimler Fakültesi Dergisi*, 1(2), 24-39.
- Quinn, R. E., & Cameron, K. S. (1988). *Paradox and Transformation: Toward A Theory Of Change In Organization And Management*. Ballinger Publishing Co/Harper & Row Publishers.
- Sager, M. T. (1988). Competitive Information Systems In Australian Retail Banking. *Information & Management*, 15(1), 59-67.
- Schaubroeck, J., Lam, S. S., & Cha, S. E. (2007). Embracing Transformational Leadership: Team Values and The Impact of Leader Behavior On Team Performance. *Journal of Applied Psychology*, 92(4), 1020.
- Şener, S., Savrul, M., & Aydın, O. (2014). Structure of Small and Medium-Sized Enterprises in Turkey and Global Competitiveness Strategies. *Procedia-Social and Behavioral Sciences*, 150, 212-221.
- Shahzad, I. A., Bhatti, K. K., & Khalid, G. K. (2007). Impact of Technological Change On Human Resource Development Practices in Pakistan: An Analytical Study. *International Review of Business Research Papers*, 3(2), 400-419.
- Todaro, M. P. (1969). A Model of Labor Migration and Urban Unemployment in Less Developed Countries. *The American Economic Review*, 59(1), 138-148.
- Vijayalalitha, V., Sharma, J. K., Nayak, T. K., & Sivakumar, P. (2021). Total Factor Productivity growth in Indian Manufacturing: New Evidences Using Data Envelopment Analysis. *Turkish Journal of Computer and Mathematics Education (TURCOMAT)*, 12(14), 1198-1213.
- Wright, P. M., McMahan, G. C., & McWilliams, A. (1994). Human Resources and Sustained Competitive Advantage: A Resource-Based Perspective. *International Journal of Human Resource Management*, 5(2), 301-326.
- Yesil, S., & Kaya, A. (2013). The Effect of Organizational Culture On Firm Financial Performance: Evidence from A Developing Country. *Procedia-Social and Behavioral Sciences*, 81, 428-437.

- Zack, M., Mckeen, J., & Singh, S. (2009). Knowledge Management and Organizational Performance: An Exploratory Analysis. *Journal of Knowledge Management*, 13(6), 392-409.
- Zou, H., Zeng, S. X., Lin, H., & Xie, X. M. (2015). Top Executives' Compensation, Industrial Competition, And Corporate Environmental Performance: Evidence from China. *Management Decision*, 53(9), 2036-2059.
- Dong, X., Hu, Y., Yin, W., & Kuo, E. (2018). *Zhongguancun model: Driving the dual engines of science & technology and capital*. Springer.
- Su, S., Lai, M. C., & Huang, H. C. (2009). Healthcare industry value creation and productivity measurement in an emerging economy. *The Service Industries Journal*, 29(7), 963-975.
- Moncarz, P., Barone, S., Calfat, G., & Descalzi, R. (2017). Poverty impacts of changes in the international prices of agricultural commodities: Recent evidence for Argentina (an ex-ante analysis). *The Journal of Development Studies*, 53(3), 375-395.
- Lehyeh, R. A. (2022). *Exploring the Impact of Innovation on Organizational Performance: Study at Jordanian Technology Companies* (Doctoral dissertation, University of Petra (Jordan)).
- Alareeni, B., & Hamdan, A. (Eds.). (2022). *Sustainable Finance, Digitalization and the Role of Technology: Proceedings of The International Conference on Business and Technology (ICBT 2021)* (Vol. 487). Springer Nature.
- Arogyaswamy, B., & Byles, C. M. (1987). Organizational culture: Internal and external fits. *Journal of Management*, 13(4), 647-658.
- Song, M., & Wang, S. (2018). Market competition, green technology progress and comparative advantages in China. *Management decision*, 56(1), 188-203.
- Song, A., Liu, Y., Zhao, X., Liu, X., & Bai, D. (2023). Analysis of coupled coordination and spatial interaction effects between manufacturing and logistics industries in the Yellow River Basin of China. *Heliyon*.
- Schaubroeck, J., Lam, S. S., & Cha, S. E. (2007). Embracing transformational leadership: team values and the impact of leader behavior on team performance. *Journal of applied psychology*, 92(4), 1020.
- Aragón-Correa, J. A., Hurtado-Torres, N., Sharma, S., & García-Morales, V. J. (2008). Environmental strategy and performance in small firms: A resource-based perspective. *Journal of environmental management*, 86(1), 88-103.
- Kiessling, T. S., Richey, R. G., Meng, J., & Dabic, M. (2009). Exploring knowledge management to organizational performance outcomes in a transitional economy. *Journal of world business*, 44(4), 421-433.

Uysal, Ş. K., Karadağ, H., Tuncer, B., & Şahin, F. (2022). Locus of control, need for achievement, and entrepreneurial intention: A moderated mediation model. *The International Journal of Management Education*, 20(2), 100560.

