

The Basic Studies on Economics and Business

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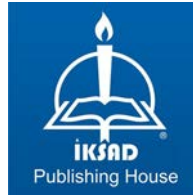
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PREFACE

Economics addresses countries' economic life as a whole. It generally examines national issues such as economic growth, development, price formation, inflation, regulation of monetary-credit policy, income distribution and employment. On the other hand, science of business investigates ways to make production, perform marketing actions and manage business in the best possible way in accordance with the principles of rationality, efficiency and profitability for every stage of a business from establishment to development. Business is the core of the economy and human beings are the core of the business. Thus, it is quite significant to know the role and the importance of human factor in business. In fact, it is the person who establishes and manages the business and works at the business and also it is the person who uses the goods and services produced by the business itself.

In this book, the specific studies about the disciplines of economics and business, which are a branch of social science, are included. **The Basic Studies on Economics and Business** book includes the following chapters;

In Chapter 1; *the study of “The Effect of Economic Growth on Banking Sector Credits in Turkey: Evidence from ARDL Bounds Testing Approach”* written by Dr. Mehmet KARA and Gizem BAŞ,

In Chapter 2; *the study of “The Nexus Between Export Diversification and Growth: Evidence from Newly Industrialized Countries”* written by Dr. Aslı ÖZPOLAT and Dr. Filiz ÇAYIRAĞASI,

In Chapter 3; *the study of “Agile Manufacturing: A Theoretical Study”* written by Dr. Emel GELMEZ,

In Chapter 4; *the study of “Macroeconomic Factors Affecting Consumer Confidence: A Time Series Analysis for Turkey”* written by Gizem BAŞ,

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In Chapter 6; *the study of “Discipline in Business and Discipline Management”* written by Dr. Erhan KILINÇ,

In Chapter 7; *the study of “Development of Accounting Standards in Turkey”* written by Dr. Ali ANTEPLİ.

We thank all the authors for their valuable contributions.

Prof. Dr. Sadettin PAKSOY

Prof. Dr. Mehmet KARA

CHAPTER 1

**THE EFFECT OF ECONOMIC GROWTH ON BANKING
SECTOR CREDITS IN TURKEY: EVIDENCE FROM ARDL
BOUNDS TESTING APPROACH**

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INTRODUCTION

The interaction between bank loans and economic growth is one of the most widely studied topics in the literature. However, there are some differences of opinion on direction of this influence. In the literature, there are two arguments that investigate the relationship between bank loans and economic growth. And these arguments are defined as “*demand following*” and “*supply leading*”. Accordingly “*demand-following*” view, as the real sector grows, there would be an increase in the demand for banking sector instruments (Vurur and Özen, 2013: 119). On the other hand, “*supply leading*” view states that an increase in bank loans leads more production and therefore, it leads also economic growth. Based on this point of view, it can be considered that banking sector is a driving force of real production through various financial instrument (Branch et al., 2015: 3; Furqani and Mulyany, 2009: 62).

British economist Joan Robinson, one of the pioneers of Post Keynesian Economic Theory, emphasized that financial development follows economic growth. Robinson's view can be summarized as “initiative leads, finance follows”. In other words, “*demand following*” view suggests that as the real aspect of the economy expands, the demand of the real sector for financial services would increase and as a result, financial services can develop (Altunöz, 2013: 184).

1. LITERATURE REVIEW

In this research paper, since the effect of economic growth on bank loans in Turkey, empirical literature related “*demand following*” view is given.

Table 1: Related Literature

Author/s	Period/Country	Method	Results
Hondroyiannis et al. (2005)	1986-1999 Greece	VAR Analysis, Granger Causality Test	It is found that there is a two-way causality between financial development and economic growth in the long run.
Dritsaki and Dritsaki-Bargiota (2005)	1988:1-2002:1 Greece	VAR Analysis, Granger Causality Test	Analysis results indicated that two-way causal relationship between the development of the banking sector and economic growth exists.
Altunç (2008)	1970-2006 Turkey	Error Correction Model and Granger Causality Test	It is concluded that there is a bidirectional causality between private sector loans and economic growth.
Pradhan (2009)	1993-2008 India	VAR Analysis	Considering the analysis results, there exists a two-way causal relationship between bank loans and economic growth. And also, it is found that financial development and economic growth are cointegrated.
Ceylan and Durkaya (2010)	1998-2008 Turkey	Granger Causality Test and Error Correction Model	In the study, it is stated that there is a one-way causality from economic growth to bank loans.
Şahin (2011)	1995-2010 Turkey	Cointegration Test, Granger Causality Test and Regression Analysis	It is concluded that there is a one-way causal relationship from economic growth to bank loans in Turkey.
Vurur and Özen (2013)	1998-2012 Turkey	Granger Causality Test	Based on the results, it is considered that there is an unidirectional causality from economic growth to bank loans.

Shan and Jianhong (2006)	1978-2001 China	VAR Analysis	The results indicated that there exists a two-way causal relationship between bank loans and economic growth.
Al Yousif (2002)	1970–1999 30 Developing Countries	Time Series and Panel Data Analyses	The study implied that there is bidirectional causality between bank loans and economic growth.
Waqabaca (2004)	1970-2000 Fiji	Johansen Cointegration Analysis and Granger Causality Test	It is determined that there is a one-way causality from economic growth to bank loans.

2. DATASET, MODEL AND METHOD

In Table 2 below, the variables in the study and their explanations are represented. The time period of the analysis covers 2005: Q4-2017: Q4. And, the data used are quarterly. Data of the variables are obtained from the CBRT Electronic Data Delivery System (EDDS).

Table 2: The Variables in The Study

Code	Explanation
KREDI	Banking Sector's Total Volume of Loans (TRY Thousand)
GSYH	GDP in Chain Linked Volume by Expenditure Approach (TRY Thousand)
CA	Current Account (Million USD)
KUR	US Dollar (Selling) (\$/TL)
FAIZ	Weighted Average Interest Rates for Banks' Commercial Loans (TRY) (%)

The mathematical model used in this study is expressed as follows;

$$KREDI_t = \alpha_1 + \alpha_2 GSYH_t + \alpha_3 CA_t + \alpha_4 KUR_t + \alpha_5 FAIZ_t + \mu_t \quad (1)$$

In this research paper, ARDL cointegration test is applied in order to determine the existence of cointegration relationship between economic growth and banking sector's total volume of loans. In the literature, Engle-Granger (1987) and Johansen (1988) cointegration tests are frequently used if the variables are not stationary at their levels but are integrated at the same degree when the differences are taken. Compared with Engle-Granger (1987) and Johansen (1988) cointegration tests, the ARDL analysis method has several advantages. Most importantly, although the variables become stationary at different levels, the cointegration relationship can be determined. In other words, whether the variables are I (0) or I (1) is not an issue in order to apply the ARDL analysis method. Another advantage is that the Unrestricted Error Correction Model (UECM) is conducted with the scope this analysis and this model provides more reliable results than other cointegration tests. In this regard, the most important feature of the Unrestricted Error Correction Model is that it gives information about variables in both short and long term. In addition, this method provides robust and reliable results even with few observations (Narayan and Narayan, 2004).

In ARDL analysis method, firstly, the boundary test is applied to determine the existence of the cointegration relationship. The boundary test is based on the least squares method. The equality of the boundary test approach is represented below;

$$\Delta Y_t = \alpha_0 + \sum_{i=0}^m \alpha_1 \Delta Y_{t-i} + \sum_{i=0}^m \alpha_2 \Delta X_{t-i} + \alpha_3 Y_{t-1} + \alpha_4 X_{t-1} \quad (2)$$

The α_0 coefficient indicates the constant term while α_3 and α_4 indicate the long-term coefficients. The Δ symbol in the model is used to represent the first differences of the variables. Furthermore, short-term relationships are expressed by means of coefficients α_1 and α_2 .

In the boundary test approach, the first lag of the dependent and independent variables is tested by the F test. The null hypothesis of this test is that there is no cointegration between the variables; however, the alternative hypothesis is that there is a co-integration relationship between them. The calculated F statistical value is compared with the critical values in the study of Pesaran et al., (2001). If the F value is smaller than the lower critical value, the null hypothesis cannot be rejected which means that there is no co-integration. On the other hand, when the F value exceeds the upper critical value, the null hypothesis can be rejected. In other words, there is a cointegration relationship between the variables. In contrast, if the F-statistic takes a value between the upper and lower critical values, that is, if the F value falls to the uncertain region, it cannot be possible to comment whether there is a cointegration relationship or not (Akel and Gazel, 2014: 31). In this context, it is necessary to examine other cointegration tests in the analysis of the long-term relationship between the variables.

Accordingly the results of the boundary test, if a cointegration between the variables is detected, ARDL model is established to analyse both long and short term relationships. The optimum lag length for the model is determined based upon Akaike (AIC), Schwarz (SC) and Hannan-Quinn (HQ) etc information criteria. The lag length with

the lowest value of these information criteria is the optimal lag length for the model. However, if there exists auto-correlation problem, then, the second lowest value is selected. This process is repeated until the autocorrelation problem is solved. Lastly, CUSUM and CUSUMSQ tests are performed to examine if the coefficients of the variables in the model are stable.

3. EMPIRICAL FINDINGS

3.1. UNIT ROOT TESTS

The notion of stationarity is quite significant in time series analysis. Granger and Newbold (1974) stated that in non-stationary time series analysis, spurious regression problem may occur and the results obtained do not represent the real relationship (Gujarati, 1999: 726). The most of the time series studies are related with making accurate forecasts about the uncertain and unknown future. If a stochastic process is not stationary, the behaviour of the series is only valid in the period of the study. It means that the objective of the studies on time series is to make predictions for the future rather than reliable parameter estimation and to capture the general tendency of the variable outside the forecast period (Bozkurt, 2013: 29). Hence, the stationarity of time series is very important.

In the study, Augmented Dickey-Fuller testi (Dickey and Fuller, 1981) unit root test is applied. According to unit root test results all the variables have unit roots at their levels, except LNCA, which means they become stationary when their first differences are taken. And, LNCA is stationary at level.

Table 3: ADF Unit Root Test Results of Series

Variables	Level	1st Difference	Decision
	ADF	ADF	
LNKREDİ	2.314 (0.418) [c+t]	-4.021 (0.002) [c]	I(1)
LNGSYH	-3.091 (0.119) [c+t]	-3.046 (0.037) [c]	I(1)
LNCA	-4.213 (0.008) [c+t]	---	I(0)
LNKUR	-1.513 (0.811) [c+t]	-4.072 (0.013) [c]	I(1)
LNFAİZ	-2.219 (0.202) [c]	-4.835 (0.000) [c]	I(1)

Notes: Expressions in square brackets represent the probability values of the tests performed, while (c) intercept and (c + t) represent trend and intercept.

3.2. COINTEGRATION TEST

In the scope of ARDL analysis method, firstly, boundary test is performed in order to determine the cointegration relationship between the variables.

Table 4: Boundary Test Results

k	F statistics	%5 Critical Values	
		Lower Critical Value	Upper Critical Value
4	7.871	2.86	4.01

The results of boundary test's results given in Table 4 indicate that the calculated F-statistic takes a greater value than upper critical value. Therefore, there is a long-term relationship between the variables.

3.3. ARDL MODEL

In Table 5, estimated values of ARDL model and diagnostic test results of the model are represented.

Table 5: ARDL (1, 2, 1, 4, 0) Estimation Results

Variables	Coefficients	t-statistics	P values
LNKREDI(-1)	0.877	37.247	0.000
LNGSYH	0.213	5.281	0.000
LNGSYH (-1)	-0.009	-0.333	0.741
LNGSYH (-2)	0.194	3.785	0.000
LNCA	-0.006	-1.098	0.280
LNCA(-1)	0.015	3.310	0.002
LNKUR	0.000	0.023	0.981
LNKUR(-1)	0.003	0.054	0.956
LNKUR(-2)	-0.012	-0.222	0.825
LNKUR(-3)	-0.101	-1.909	0.065
LNKUR(-4)	0.151	3.692	0.000
LNFAİZ	-0.110	-7.004	0.000
C	-5.070	-3.622	0.001

Diagnostic Test Results	
R ²	0.999
Adjusted R ²	0.999
X ² BG	1.324 (0.114)
X ² RAMSEY	0.061(0.806)
X ² NORM	1.186(0.552)
HET	0.779 (0.983)

Notes: X² BG, X² RAMSEY, X² NORM and HET; stand for autocorrelation, model construction error, normality and heteroscedasticity, respectively.

If the diagnostic test results are examined, it can be considered that there is no auto-correlation and heteroscedasticity problems in the series of variables, the selected model is suitable, and the series are normally distributed.

3.3.1. LONG-TERM RELATIONSHIP

The estimation results of the ARDL (1, 2, 1, 4, 0) model for the long term are given in Table 6.

Table 6: ARDL (1, 2, 1, 4, 0) Long-term Coefficients

Variables	Coefficients	t-statistics	p-values
LNGSYH	3.252	8.631	0.000
LNCA	0.068	1.395	0.172
LNKUR	0.340	1.849	0.073
LNFAİZ	-0.901	-9.472	0.000
C	-41.396	-5.931	0.000

Based on the long-term analysis results, there is a both statistically and economically significant relationship between total volume of bank loans and economic growth and interest. In this case, it is found that in the long term, an increase in economic growth causes bank loans to increase. And, decreases in interest rates lead volume of bank loans to increase as expected.

3.3.2. SHORT-TERM RELATIONSHIP

The results of the analysis examining the short-term relationship between the variables are represented in Table 7.

Table 7: Error Correction Model Results Based on ARDL(1,2,1,4,0)

Variables	Coefficients	t-statistics	p-values
D(LNGSYH)	0.213	5.281	0.000
D(LNGSYH (-1))	-0.194	-3.785	0.000
D(LNCA)	-0.006	-1.098	0.280
D(LNKUR)	0.000	0.023	0.981
D(LNKUR(-1))	0.012	0.222	0.825
D(LNKUR(-2))	0.101	1.909	0.065
D(LNKUR(-3))	-0.151	-3.692	0.000
D(LNFAİZ)	-0.110	-7.004	0.000
ECT (-1)	-0.122	-5.199	0.000

Analysis results indicate that there is also in short-term, a statistically and economically significant relationship between total volume of bank loans and economic growth and interest. In this case, it can be considered that as economic growth increases, volume of bank loans increases as well in the short-term. Moreover, it is found that if interest rates decreases, volume of bank loans increases.

Additionally, the error correction term coefficient is determined as -0.122. Error correction term has a negative sign and it is statistically significant. Thus, it is concluded that 12.20% of the short-term deviations come back to equilibrium in the next period.

3.3.3. CUSUM TESTS

In addition to the analyses applied, the stability of long term coefficients is examined for structural change by using the Cumulative Sum (CUSUM) tests, which is a general test developed by Brown, Durbin and Evans (1975), and the results are represented in Figure 1.

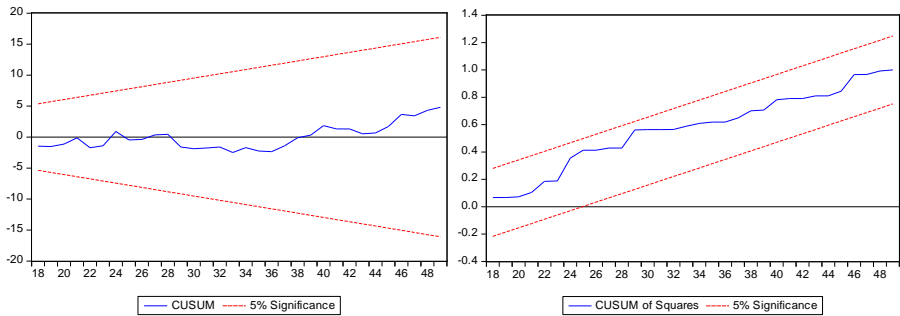


Figure 1: CUSUM and CUSUMSQ Graphs

The above CUSUM and CUSUMSQ graphs imply that there are no structural breaks related to the variables used in the analysis and that the long-term coefficients calculated based upon the ARDL Boundary Test are stable.

CONCLUSION

In this research study, the effect of economic growth on banking sector's volume of loans is investigated in Turkey for the period of 2005:Q4 - 2017:Q4.

Based on the results of the boundary test performed within the scope of ARDL analysis method, long-term relationship between the variables

is determined. Furthermore, in both short and long term, it is found that there is a statistically and economically significant relationship between economic growth and banking sector's volume of loans. In other words, it is concluded that as economic growth increases, also the volume of loans increases in both long and short-term.

It can be considered that the environment of confidence is high in a country where economic growth is realized and welfare is high. In countries with a high confidence environment, it can be stated that this would increase the amount of loans used, as banks would tend to give more loans. Also, with the increasing confidence environment, the demands of economic decision makers on bank loans can increase in order to make more consumption and investment expenditures.

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CHAPTER 2

**THE NEXUS BETWEEN EXPORT DIVERSIFICATION AND
GROWTH: EVIDENCE FROM NEWLY INDUSTRIALIZED
COUNTRIES**

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INTRODUCTION

The standard international trade theory implies that specialisation in a product creates a significant advantages for firms and countries since they benefit from comparative advantages. With specialization, the allocation of the resources becomes more efficient and productive. Contrary to this view, some economists state that diversified economies are less vulnerable to economic shocks and more productive than specialized economies. Adam Smith's productivity theory emphasizes the specialization of production and trade. However, structuralist theories have serious doubts about the theoretical proposals of specialization that promote growth with developing countries, which underwent trade conditions in the 1950s and 1960s (Agosin, 2007). Therefore, the current study aims to estimate the effect of diversification on the growth for newly industrialized countries.

The theory on export diversification suggests that diversification supports the growth with more than one channel. In export diversification, the number of sectors in exports is increased and the dependence on the limited products dominated by high prices and quantity fluctuations can be reduced (Herzer and Lehnmann, 2006:1825). Therefore, for the countries which are more sensitive to shocks in the commercial environment, export diversification may contribute to the balancing of export revenues in the long term (McIntyre et al., 2018:5). Diversification leads to an increase in investment opportunities and thus may decrease the risks of investors. In addition, specialization in a single product is always a source of

volatility and instability in prices over a period, while diversification is said to contribute to stability in export revenues and to economic growth in the future (Hammouda et al., 2010:125). Diversification in new products is mainly caused by long-term growth, which has a dynamic effect on productivity, and it is declared that it creates learning opportunities with the participation of diversification in the export and production processes (McIntyre et al., 2018:4). According to export diversification, externalities and new production techniques are associated with export product diversification. This association is likely to advantage other activities through entrepreneurial skills, knowledge spillovers, acquisition of new organizational skills and incentives for capital formation (Al-Marhubi, 2000:559). In the literature, empirical research stresses that when the distribution of export product diversification increases, GDP per capita will also increase.

In economics, product diversification is evaluated by means of indices. The most important index is the Herfindahl-Hirschmann Index. The value of this index changes between 0 and 1. As the value of this index approaches to zero, product diversification increases. Therefore, it can be interpreted that the related country's exports and imports are highly diversified. If the value approaches to one, the rate of concentrating on products increases. Consequently, it can be asserted that the exports or the imports of that country are highly concentrated on a small number of products. The other index is the modified Finger-Kreinin measure, which takes values between 0 and 1 like the Herfindahl-Hirschmann Index. In 2016, the diversification index accounted by the Finger-

Kreinin index obtained from The Database of United Nations Conference on Trade and Development (UNCTAD) was 0.44 for Turkey, 0.36 for Thailand, 0.51 for South Africa and 0.55 for Brazil. So, it can be said that exports are diversified for Brazil and Thailand contrary to Turkey and South Africa.

In this study, the dynamic relationship between export diversification and the GDP growth has been analysed based on the previously mentioned reasons. The models have been estimated using yearly data from 1995 to 2016 for 9 newly industrialized countries which are Brazil, China, India, Malaysia, Mexico, Philippines, South Africa, Thailand and Turkey. By using the variables above, the dynamic relationship between the series has been analysed using the Westerlund cointegration test and the panel heterogeneity causal test.

The contributions of this study to the existing literature are threefold: I) To the best of our knowledge, this is the first study to examine the casual link between export diversification and the GDP growth in newly industrialized countries. II) The model in the study has been estimated using the panel methods including the existence of Cross-Sectional Dependency so that the estimation could give more meaningful results than using other methods which ignore the Cross-Sectional Dependency. III) In conclusion section, some political suggestions have been offered based on the results.

1. Literature Review

In the economics literature, there are some studies associating export diversification and economic growth (see for example, Presbith, 1950; Singer, 1950; Vernon, 1966; Chenery, 1979; Krugman, 1979; Syrquin, 1980; Ghosh and Ostry, 1994; Rodriguez and Rodrik, 2001; Fuining and Jing, 2003; Lederman and Maloney, 2003; Matsen, 2006; Tisdell, 2007; Agosin et al, 2012; Aditya and Acharyya, 2011). In addition, there is a significant amount of theoretical and empirical research regarding the strong relationship between foreign trade structure and size; the economic growth and development of a country; and the effect of trade on the economy's performance in various ways. By equating diversification and harmonizing international standards, the import markets of rich countries can also contribute to the product diversity of developing countries (Shepherd, 2015:320). Grossman and Helpman (1991), Rivera Batiz and Romer (1991) state that there is a relationship between development and trade resulting from investment. Economies of scale, increases in capacity utilization and ways of effective gaining created by the competitive pressure in world trade can be shown as the other channels (Bağcı, 2010:2). Greenaway and others (2006) have similar results pointing to a strong positive relationship between real export growth and real output growth. In addition, not only exports and economic growth, but also the structural changes in exports should be considered (Balaguer and Cantavella-Jordá, 2004:474). The export structures of countries have a significant impact on the increase in exports and income levels. These results are consistent with the effect

of export diversification in Pakistan on the increase of its growth performance between 1979 and 1987 (Akbar and Zareen F. Naqvi, 2000:586)

There are different arguments about the effects of product diversity and specialization on growth and productivity. Because of comparative advantages, the standard international trade theory implies that specialization has a big effect on growth and productivity. Smith (1776) and Ricardo (1817) state that specialization has a significant impact in total productivity and effectiveness. Feenstra and Kee (2004) confirm the importance of export variety in explaining productivity with empirical analysis. In this approach, exports will trigger economic growth along with specialization in sectors. Therefore, the resources will be redistributed among the relatively less active sectors and the productivity of these sectors will increase. On the other hand, high expertise in exports leads to high sensitivity to sectoral shocks and high fluctuations in export revenues. When this situation affects the import capacity of the country, it can cause the investors to move away and the investments will be insufficient (Bleaney and Greenaway, 2001).

Bernard et al. (2007) state that product diversity is more effective on growth and productivity. Matedeen (2011) likewise found an inverse relationship between export condensation and economic growth. This finding indicates that higher economic growth will be achieved through export diversification. For this reason, it is necessary to provide Mauritius's diversification of exports and then appropriate incentives to develop and sustain economic growth, to address market and

information errors, to encourage entrepreneurship and discoveries, and to ensure a competitive business and regulatory environment.

Accordingly, product diversity provides many advantages such as economies of scale and scope, low costs, production structure compatible with market changes, growth caused by innovation and learning process (Chari, Devaraj and David, 2007:184). In addition, the empirical research by Juvenal and Monteiro (2013) supports that the increase in the number of export markets reduces the demand uncertainty. In his study on transition economies, Shepotylo (2012) concluded that in cases product diversity is insufficient, foreign trade is more fragile. At this stage, he states that it is necessary to increase the diversity with supportive economic policies. With a higher export diversity, the possibility of influencing the country's trade conditions caused by sector shocks is reduced and this leads to less fluctuation in the country's growth trend (Haddad et al., 2010). Furthermore, Cadot, Carrère and Strauss-Kahn (2011) and Klinger and Lederman (2004) found a hump-shaped (reverse U-shaped) relationship between economic development and export variation as a result of their work. Singer (1950) explained that an increase in product diversity in a period had a positive effect on growth in the following period. In their studies for Chile, Herzer and Lehnmann (2007) found that diversity was significant for economic growth. Al-Marhubi (2000) concluded that diversity triggered growth in various countries. Also, distortions of international trade run counter to a country's comparative advantage and they may have adverse effects on growth. According to Herzer and

Nowak-Lehmann (2006), export diversity can contribute positively to economic growth by reducing the dependence on a limited amount of goods. The study also reconciles various theoretical debates on export diversity and expertise. In a sample of sixty-five countries between the years of 1965 and 2005, GMM concludes that export diversification is related to economic growth after controlling variables such as dynamic panel estimation, delayed growth, investment, exports and infrastructure. It is concluded that the export diversification effect is stronger when the country's exports are larger than the world average exports (Aditya and Roy, 2013:18).

The empirical study findings by Sannasse et al. (2014) show that there is a positive relationship between export diversity and economic growth for Mauritius in the short and long term. Similarly, Pineres (2000) indicates that there is a positive relationship between diversity and income per capita for Latin American countries according to the panel data method. Hesse (2008) also provides some empirical evidence of the positive impact of export diversification on per capita income growth, consistent with the relevant literature. Agosin (2007) also concludes that if a country's exports grow faster, export diversification has a stronger impact on per capita income growth. Externalities associated with export diversification can also contribute positively to the rapid growth of countries in the long term with different export structures. New production techniques related to export diversification can benefit from activities such as information dissemination and acquisition of new organizational and entrepreneurial skills and capital

formation (Al-Marhubi, 2000:559). The findings of Arip et al. (2010) also support previous studies. These findings indicate that export diversification has a significant impact on Malaysia's economic growth. Malaysia's diversification of export products also reveals the need to improve business relations with the world in economic and social areas. However, for these increases to occur, it is necessary to take policy measures like macroeconomic stabilization, removal of entry barriers, increasing investments in infrastructure and human capital (IMF Policy Paper, 2014:36).

Furthermore, some studies imply U-shaped relationship between export diversification and economic growth. Imbs and Wacziarg (2003), the sectoral concentration path between export product diversity and economic development is u-shaped. Countries primarily focus on diversity and they prefer specialization when the income level goes down to 9000 \$. Therefore, according to the results of the study, specialization may play a preventive role in income complaints in low-income countries. (Değer, 2010:261). In addition to these empirical findings, McIntyre et al. (2018) report that export diversification has a more significant impact on reducing output volatility than improving the long run growth rate in small states.

In addition, some studies emphasize the indirect relationship via productivity between export diversification and economic growth. There is a considerable amount of empirical studies, which find a positive relationship between product diversity and productivity. Jat et al. (2011) conclude that product diversity increases the effectiveness in

high productivity and use of resources in agricultural sector. Bağcı (2010) points out that specialization and diversity are effective on productivity in different ways. He was unable to find a meaningful relationship between export structure and productivity in his study in which he carried out GMM analysis for high, medium and low-income countries. Acemoğlu and Ziliboti (2001), Parente and Prescott (2000) conclude that effective and productive diversity has a positive effect on total productivity. Therefore, with the increasing in the productivity, product diversity has a positive effect on the profitability of companies. Wagner (2014) concludes that product diversity in production sector has a positive effect on the profitability of product diversity in his study on Germany. In their study, Xuefeng and Yaşar conclude that the relationship between export market diversification and firm productivity is not linear but it is U-shaped by creating learning theories and a multi-product company model. In addition, as the export market diversification increases, productivity decreases to a threshold point, and it is expected that companies will increase their capabilities even more as they improve their cost-effectiveness and efficiency-enhancing business decisions (Xuefeng and Yaşar, 2016:40).

The relationship between product diversity in exports and economic policies states as follows (IMF Policy Paper, 2014:33):

- In developing countries, effectiveness and productivity in education and organizational structures effect product diversity positively.

- In developing countries, an advanced financial system has a positive effect on product diversity in exports
- In developed, developing and underdeveloped countries product diversity increase with the globalization.
- Undervaluation in real exchange rates causes an increase in product diversity and accordingly effects the profitability of companies

2. Methodology

Regarding the data employed in the study, the annual data were collected for the period of 1995-2016 for 9 newly industrialized countries (Brazil, China, India, Malaysia, Mexico, Philippines, South Africa, Thailand and Turkey). The variables are Real Gross Domestic Product (GDP) in billions of constant 2010 US \$ and Export Diversification index (EXD). The data of Real GDP were sourced from the World Development Indicators (World Bank), Export Diversification index data were sourced from UNCTAD. All variables have been used in natural logarithms. In the analysis of the causality relationship between GDP and EXD, firstly the long-term relationship among the variables was specified. For this purpose, the cross-sectional dependence, which is frequently encountered in panel data analysis, was investigated. CD testing was performed to estimate the Cross-Sectional Dependence. It is assumed that the breakdowns and changes occurring in the units in the panel data analysis are independent of each other and the units do not affect each other. However, it is very unlikely that the panels created do not affect each other. Therefore, firstly, the

dependency between the units should be investigated in the panel data analysis. This dependence between the units of the panel, called the Cross-Sectional Dependence, was estimated by the tests developed by Breush Pagan (1980) and Pesaran (2004). The CD test developed by Pesaran (2004) is calculated as follows:

$$CD = \sqrt{\frac{2T}{N(N-1)}} \left(\sum_{i=1}^{N-1} \sum_{j=i+1}^N \hat{\rho}_{ij} \right) \quad (1)$$

In the model, T represents the time dimension of the panel, N is the cross-sectional dimension of the panel and $\hat{\rho}_{ij}$ is the binary OLS correlation sample estimate of the remains. Where the T value is small, and the N value is large, the CD test allows asymptotic standard normal distribution (Pesaran, 2004:1-7). After determining the cross-sectional dependence of the panel, CIPS unit root analysis developed by Pesaran (2007) was estimated. CIPS unit root analysis is derived from CADF statistic in equation 2.

$$\Delta y_{i,t} = a_i + \rho_i y_{i,t-1} + \beta_i \bar{y}_{i,t-1} + \sum_{j=0}^k \tau_{ij} \Delta y_{i,t-1} + \sum_{j=0}^k \delta_{ij} y_{i,t-1} + \varepsilon_{i,t} \quad (2)$$

According to the results of this test, the Westerlund Cointegration Tests (2017) were estimated. The main factor in the use of this method is that the analysis takes into account the heterogeneity among the units that constitute the panel. Westerlund (2007) Cointegration Test, which permits structural breaks under Cross-Section Dependence, is based on the Error Correction Model included in equation 3, 4 and 5.

$$\Delta E_{i,t} = \alpha_i^E + \lambda_i^E \left(E_{i,t-1} - \beta_i^E Y_{i,t-1} - \gamma_i^E T_{i,t-1} \right) + \sum_{j=1}^n \theta_{i,j}^E \Delta E_{i,t-j} + \sum_{j=1}^p \phi_{i,j}^E \Delta T_{i,t-j} + \sum_{j=1}^m \delta_{i,j}^E \Delta Y_{i,t-j} + u_{i,t} \quad (3)$$

$$\Delta Y_{i,t} = \alpha_i^Y + \lambda_i^Y \left(Y_{i,t-1} - \beta_i^Y E_{i,t-1} - \gamma_i^Y T_{i,t-1} \right) + \sum_{j=1}^n \delta_{i,j}^Y \Delta Y_{i,t-j} + \sum_{j=1}^m \theta_{i,j}^Y \Delta E_{i,t-j} + \sum_{j=1}^p \phi_{i,j}^Y \Delta T_{i,t-j} + \varepsilon_{i,t} \quad (4)$$

$$\Delta T_{i,t} = \alpha_i^T + \lambda_i^T \left(T_{i,t-1} - \beta_i^T Y_{i,t-1} - \gamma_i^T E_{i,t-1} \right) + \sum_{j=1}^p \phi_{i,j}^T \Delta T_{i,t-j} + \sum_{j=1}^m \delta_{i,j}^T \Delta Y_{i,t-j} + \sum_{j=1}^n \theta_{i,j}^T \Delta E_{i,t-j} + e_{i,t} \quad (5)$$

The parameters λ_i^k in the equation refer to $k \in \{E, Y, T\}$ the error correction terms and are used to estimate the error correction speed of a unit in the panel in the long term. Within the scope of the Westerlund (2007) Cointegration analysis, the null hypothesis of no cointegration and alternative hypothesis are formed as two different tests which are the average group and panel test. At this stage, four cointegration test statistics ($G_\alpha, G_\tau, P_\alpha, P_\tau$) are formed according to the error correction model. Finally in the study, the Heterogeneous Panel Causality test, which considers the cross-sectional dependence, was estimated. The test is written as follows:

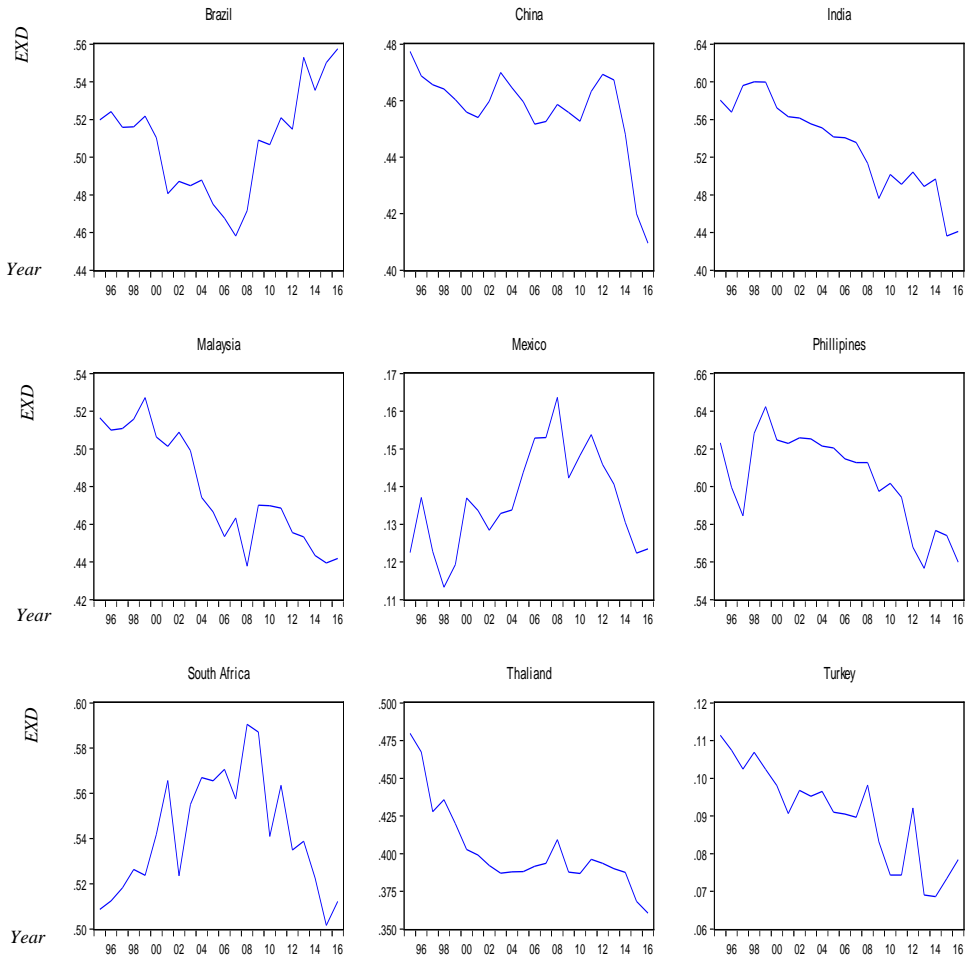
$$y_{i,t} = \alpha_1 + \sum_{k=1}^K \gamma_i^{(k)} y_{i,t-k} + \varepsilon_{i,t} \quad (6)$$

According to the equation (6), x and y are the stationary variables for N individuals on T periods. K is denoted by K and autoregressive parameters $\gamma_i^{(k)}$ and regression coefficients slopes $\beta_i^{(k)}$ refer to different groups. According to the equation, the null hypothesis is not a homogeneously causality in the panel.

3. Data and Test Results

In the study, the long run link between export diversification and growth is examined for the period from 1995 to 2016 in newly industrialized countries. Figure 1 shows the export diversification index for each unit of the panel.

Figure 1. The Export Diversification Index in Newly Industrialized Countries



References: UNCTAD Statistics Databases (2019)

The diversification index indicate that differences between the structure of exports by product of a given country and the structure of product of the world. Diversification index ranges from 0 to 1(World Bank, 2019). Therefore, when Figure 1 examines, it can be seen that diversification on product changes according to countries, and it decreases in all countries except for Brazil. This results show that countries chose specialization of product instead of diversification of product. Therefore, the study aims to specify the long term relationship between export diversification and growth. To specify the relationship, firstly the cross-sectional dependence of the variables was analysed by the CD test. The results are shown in Table 1.

Table 1. The CD Test Results

	EXD	GDP
Breusch-Pagan LM	207.7222(0.0000)	760.9482 (0.0000)
Pesaran scaled LM	19.17700(0.0000)	84.37529 (0.0000)
Bias-corrected scaled LM	18.96271(0.0000)	84.16100 (0.0000)
Pesaran CD	4.742172(0.0000)	27.58218 (0.0000)

Note: Values in parenthesis show that probability

No cross-sectional dependence is not accepted according to the findings. Hence, there is a cross-sectional dependence between variables. Therefore, the cointegration relationship among variables would be calculated through a test that considered the cross-sectional dependence. However, the stability of the variables had to be tested before the cointegration test. For this purpose, CIPS test was applied which considered the Cross-Sectional Dependence. The results are given in Table 2.

Table 2. The Panel Unit Root Test (CIPS)

Test	Constant	Constant and Trend
EXD (0)	-1.793	-2.311
GDP (0)	-1.160	-0.877
EXD (1)	-4.512***	-4.755***
GDP (1)	-2.581***	-3.013**

Critical values for constant: *10%; -2.12; **5%; -2.25, ***1%; -2.51, Critical values for constant and trend: *10%; -2.76; **5%; -2.94, ***1%; -3.33

When the results are evaluated, the EXD and GDP variables have a stationary at the first-degree difference. Therefore, the Westerlund cointegration analysis was predicted after the determination of the variables and the differences at the same level. The cointegration analysis was estimated using the Westerlund Cointegration Test and the Pedroni Cointegration Test. Table 3 shows the results of the cointegration.

Table 3. The Panel Cointegration Tests Results

	Test	Value
	Pedroni Cointegration Test	
	Pedroni (ADF)	-2.609 (0.004)
	Pedroni (PP)	-2.248 (0.026)
	Westerlund ECM	
GDP and EXD	G_T	-1.544 (0.051)
	G_α	-3.753 (0.513)
	P_T	-5.142 (0.001)
	P_α	-4.717 (0.000)

Note: Values in parenthesis show that probability

When the results in Table 3 were evaluated, the existence of long-term relationship between EXD and GDP was accepted. The Westerlund Cointegration Test is analyzed according to four test statistics with normal distribution. Of these tests, G_α and G_t are group estimations and P_α and P_t mean unit estimation. According to the results, G_t , P_α and P_t

tests for GDP and EXD supported the existence of cointegration and Ga test rejected the existence of cointegration. According to Gt, Pa and Pt tests statistics, there is co-integration among the variables. In the last stage of the analysis, the causal link among the variables was investigated. The test results are shown in Table 4.

Table 4. The Heterogeneous Panel Causality Test Results

Null hypothesis	Zbar-Stat	p-value
EXD does not homogeneously cause GDP	1.73191*	0.0833
GDP does not homogeneously cause EXD	6.37175***	0.0002

Note: *, ** and *** indicate the statistical significance at 10%, 5% and 1% levels, respectively.

According to the test results, there is a bidirectional causality between EXD and GDP. The causality shows that the knowledge of past values of EXD helps to improve the forecasts of GDP and vice versa.

CONCLUSION AND REMARKS

Advanced production techniques in export diversification also contribute to other sectors by chaining information dissemination. Increased competitiveness, better organization forms, technology, labour force education, knowledge level about international markets and more efficient management methods are the sources of information dissemination and thereby an increase in productivity (Herzer and Nowak-Lehmann D., 2006:1825).

The current study aims to compare the effect of diversification on growth of newly industrialized countries according to these different views. To estimate the relationship between export diversification and

GDP growth, the cointegration and causality among variables were analyzed in the study. The models were estimated using yearly data from 1995 to 2016 for 9 newly industrialized countries which are Brazil, China, India, Malaysia, Mexico, Philippines, South Africa, Thailand and Turkey. In the analysis of the causality and cointegration relationship between GDP and EXD, four steps were predicted provided as follows: I) The CD testing was performed to estimate the Cross-Sectional Dependence, ii)The stationary of variables was estimated using the Panel Unit Root Test (CIPS), iii)The Westerlund Cointegration Tests was used to specify the long-run relationship among variables. The Pedroni cointegration test was also used, iv) The Heterogeneous Panel Causality Test, which considers the cross-sectional dependence, was estimated.

According to the results, export diversification index and GDP growth have a long-term relationship. In addition, there is bidirectional causality among variables. Therefore, the results of the model are consistent with Herzer and Lehnmann (2007), Sannasse et. al. (2014), Pineres (2000), Hesse (2008) and Agosin (2007). In the context of policy implications, the nexus between growth and diversification points to some basic and underlying determinants such as policy and institutional factors. Therefore, it is necessary to consider the diversification strategy in the context of a cohesive development strategy. In particular, a supportive business environment, such as macroeconomic policy stability, infrastructure, human capital and the quality of basic business services, is of great importance for the

promotion of new economic sectors (McIntyre et al., 2018:16). As consequences according to sectoral factors and economic regulations such as macroeconomic stability, removal of entry barriers in international trade, increasing investments in infrastructure and human capital are actively performed, export product diversification can have a positive effect on growth of capital (IMF Policy Paper, 2014:36).

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CHAPTER 3
AGILE MANUFACTURING:
A THEORETICAL STUDY

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INTRODUCTION

Businesses are supposed to pursue various operation strategies in order to instantly respond to the consumers' expectations in today's competition environment. When evaluated the transformation occurring in the business structure in terms of historical cycle, expectations of the manufacturers and consumers are seen to diversify day by day. So, various transformations have been experienced in the structure of the manufacturing systems from the period dominated by craft production system to present. Now, consumers are seen to use up the lifetimes of the products introduced to the market or to show tendency toward various alternatives. As for manufacturers, they are seen to manufacture and introduce to the market their products more diversely and more rapidly in this changing structure. In other words, the change taking place in manufacturer-consumer profile stands out along with the manufacturing activities occurring a level that is much advanced than the understanding "I sell what I produce". Such a transformation has reflected in all business activities and escalated the competition within the global system. When evaluated in terms of the businesses, the outcome or necessity of monitoring the environment constantly has emerged. In this context, this study addresses theoretically the "agile manufacturing", which can be described as a necessity for the businesses to be able to survive and exist in the respective markets in terms of the developed and developing manufacturing structure and systems. This study lays down the changes occurring the manufacturing structure and details the concept of agile manufacturing in the first place.

1. CHANGES IN THE MANUFACTURING STRUCTURE

The escalating competition environment brings about continuous change and uncertainty, and is felt in most industries. In such a competition environment, change is no more an exception for the businesses, but has rather become a compulsory element. Customer demands are gradually changing, consumers are preferring and willing to acquire high-quality, affordable and customized products (Çetin and Altuğ, 2005: 303). The manufacturers taking part in the competitive markets are forced to use new strategies and technologies for enhancing the product quality, reducing the manufacturing cost and decreasing the lead time (Manivelmuralidaran, 2015: 156). The activities performed in many fields, particularly the manufacturing and management fields, have been substantially affected by the rapid developments experienced in technology in the recent years. This has brought about change of many concepts and emergence of new concepts (Kasap and Peker, 2009: 58). As a matter of fact, transformations have taken place in the manufacturing systems. In this framework, the differences between the conventional manufacturing philosophy and new manufacturing philosophy are presented through Table 1.

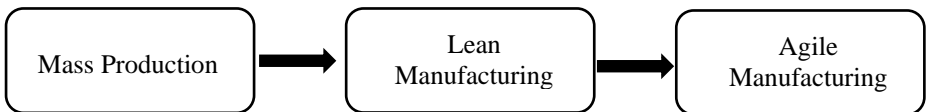
Table 1. Comparison of Conventional and New Manufacturing

	Conventional Manufacturing	New Manufacturing Philosophy
Conceptualization of the manufacturing	Manufacturing consists of the activities and all activities add value.	Manufacturing consists of activities and flows, and there are both value-adding and non-value-adding activities.
Control focus	Cost of the activities.	Cost, time and value of the flows.
Improvement focus	Productivity increases along with implementation of the new technology.	Removal or elimination of the non-value-adding activities, increasing the value-adding activities through continuous improvement and new technology.

Source: Koskela, 1993: 50.

When examined the table, difference is seen to exist between the conventional manufacturing systems and new manufacturing philosophy in terms of the view of manufacturing, control focus and improvement focus. So, transition from mass production to lean manufacturing and from lean manufacturing to agile manufacturing has taken place over time. This phase of transition is presented in Figure 1 (Tekin, 2012: 264).

Figure 1. The Phase of Transition from Mass Production to Agile Manufacturing



Source: Tekin, 2012: 264.

As will be seen from Figure 1, a phase of transition from mass production to agile manufacturing has been experienced in

manufacturing. It is necessary to examine the historical development process of agile manufacturing in order to comprehend the said concept better. When considered the historical cycle, different evaluations regarding development of agile manufacturing stand out. In general terms, this process is evaluated in three phases being craft production, mass production and lean manufacturing (Çetin and Altuğ, 2005: 301). However, when taken into account the paradigm of manufacturing, it is seen that there is a transition from craft production to mass production and then to lean manufacturing, and that this paradigm has today evolved to agile manufacturing (Potdar et al., 2017: 2023). In this context, craft production, mass production and lean manufacturing systems were laid down and the concept of agile manufacturing was detailed in the first place.

1.1. Craft Production

Craft production is mainly a labor-intensive industry while incorporating low technology (Venkataramanaiah and Kumar, 2011: 32). In this system functioning on order basis, the manufacturing system embodies a customized character. In this manufacturing system, the fact that number of buyers is limited results in establishment of the industrial business that is established for satisfying the needs of these buyers often as a small unit. Along with smallness of the business, the customized character of the manufacturing brings about the result that mostly manufacturing is started and completed by such person or persons who is/are specialized only in one field and who does/do not resort to division of labor. At the same time, it is seen that too little place is given

to technical tools and machines in this manufacturing system (Şimşek and Çelik, 2013: 186).

While technology is used at limited level in craft production, usually workers' capabilities are put in the forefront. In most manufacturing sectors, it is essential that the workers have knowledge and experience about all phases concerning the product manufactured. The workers may be contemplating to leave the workplaces they already work and open their own workplaces. When evaluated in terms of quality control, the tolerances may be usually determined as average. In this manufacturing style, while operation of two parts compatibly with each other is seen to be at the acceptability level, the next product manufactured might not resemble the previous one. The unit part manufacturing duration might also vary in this style of manufacturing. To set an example, when the best employee quits in a business, manufacturing can come to a standstill. It is a manufacturing style where capacity is limited, and unit costs are high, and it possible to perform manufacturing that is fully in accordance with the customer demands (Tanoğlu, 2008: 2). Craft production is seen to have actually a close relationship with agile manufacturing style, which has proved its success today in the current competition environment when examined in terms of the manufacturing history. It is possible to explain this as the feature of agile manufacturing to respond to customer demands in the quickest and most reliable way. Customer demands are too important also in craft production. In addition, it should be considered that agile manufacturing manages this responding rapidly,

whereas craft businesses try to respond with the scarce resources in hand (Arslan and Özcan, 2017: 152).

1.2. Mass Production

While its effects were partly felt until the mid-19th century, F. W. Taylor (1911) and Henry Ford (1913) pioneered the “paradigm of mass production” (Duguay et al., 1997: 1184). Taylorism planned and standardized the work to the finest details with his studies on time and motion. However, mobility of the workers between the machines, loss of time and decreased productivity could not be prevented in this philosophy. In case the parts worked on by the workers are completed, the problem of loss of time came up due to the fact that they were responsible for conveying these parts to the next point in the system. These problems resulting from Taylorism led to transition to a new manufacturing system, which entered the literature as “Fordism” or “assembly line in manufacturing”, which aimed to minimize the problem. The first example of this system, which was included in the literature as assembly line system, was implemented in the 1920s, and maintained its existence as the dominant manufacturing-organization manner in the industry until the 1970s (Çakmak, 2004: 237).

Mass production is the systems where the machines and facilities are allocated only to a certain product and the operations on a certain product are performed sequentially (Üreten, 2006: 14). In that period, mass production became the only option used worldwide with use of assembly lines in manufacturing. The objective of selling more in the market and gaining from demand was put in the forefront in mass

production. In that period, the goods and services offered to the customer were easily marketable since there was no global competition (Tekin, 2012: 264). In mass production, characteristics of the manufacturers are as follows (Duguay et al., 1997: 1184-1185).

- They are usually interested in lowering the costs by increasing the manufacturing volume (economies of scale). Quality, time and cost are thought to be a necessity among the cross-functional performance criteria.
- Innovation is the preferred way of improving the manufacturing system. These innovations are usually few in number, and are the outcome of large projects designed and directed by specialists and managers.
- Workforce is directly under supervision of the managers, and is limited to fulfillment of the manufacturing tasks.
- There is almost an inverse relationship with the suppliers. Suppliers are considered as opportunist.

In cases of any unfavorable situation on the manufacturing line in mass production (such as breakdown of a machine), the entire line may be affected by this situation. Therefore, preventive maintenance activities are important in this manufacturing system. Flexibility is too low in these manufacturing systems. Automobile, detergent or white appliance manufacturers may be given as example for these systems (Üreten, 2006: 14). The problems encountered nowadays by those businesses implementing mass production may be listed as follows under main headings (lean.org.tr).

- Overall economic performance of the business,
- Planning and management,
- Internal visibility,
- Workers,
- P&D (new product development),
- Manufacturing,
- Work standards,
- Quality,
- Material,
- Supplier relations.

Needless operations performed in mass production systems implemented in the businesses, unnecessary excess use of raw material and inventory used, lead to losses and waste. Minor changes that take place in the manufacturing systems result in high cost. Structuring of the manufacturing organization as such will cause waste at various levels in both the investments made in the manufacturing factors and at human and worker level (Tekin, 2012: 260). Hence, it was seen that agile manufacturing has been substituted by different alternatives over time.

1.3. Lean Manufacturing

The concept of lean manufacturing was first used by Womack et al. (1990) in the book named “The Machine That Changed The World”. This concept depicts the deep revolution launched by Toyota against the mass production system (Taj, 2018: 219). Lean manufacturing

system is the Japanese work method implemented for the first time at Toyota Motor Corporation. Referred to as “Toyota Manufacturing System” until a certain period (the 1980s), this system has been defined with similar features but by different terms in various countries and businesses in the course of spreading to the entire world as the alternative manufacturing philosophy (Türkan, 2010: 29).

When addressed in terms of manufacturing, leanness in manufacturing means use of the existing resources effectively and efficiently, prevention of needless use of time and resources (Tekin, 2012: 264). In other words, while lean manufacturing allows continuous development of the businesses, it helps them to reduce the manufacturing costs and times by eliminating the waste (Shi et al., 2019).

Taking part in the literature as a philosophy providing value for the customers and enhancing the performance in manufacturing systems by eliminating the waste (Soliman and Saurin, 2017: 13), lean manufacturing is a systematic method used for eliminating the waste in a manufacturing system (Onwughalu et al., 2017: 86). In more general terms, this manufacturing system is accepted as an approach focused on reducing the seven wastes consisting of excess manufacturing, excess inventory, transport, defective manufacturing, needless processing, needless motion and waiting (Turan, 2006: 65).

The lean manufacturing philosophy has made itself accepted as an effective management understanding especially in the competitive markets. The main goal of lean manufacturing is to be able to manage the whole manufacturing cycle in a value-oriented manner by

eliminating the non-value-adding activities and making improvements continuously in the operations at the same time. The most important effects of lean practices can be listed as decrease of inventory, shortening of supply, manufacturing and delivery times, facilitation of follow-up and control, and rapid decrease of the costs (Can and Güneşlik, 2013: 2). At the same time, main benefits of lean manufacturing can be listed as low manufacturing costs, increased manufacturing quantity, and shorter lead times (ilo.org). In this context, it is important to compare Fordism, which has an important influence in development of the lean manufacturing, with Lean Manufacturing. Comparison of Fordism and Lean Manufacturing is presented in Table 2 below.

Table 2. Comparison of Fordism and Lean Manufacturing

Fordism	Lean Manufacturing
Standard, mass production, low cost	Flexible manufacturing (volume, diversity, small batch)
Long setup durations	Short setup durations
Product-dedicated machines	Flexible machines
Select trained personnel in the market, train less	More internal training
Routine tasks, individual jobs, one job for one person	Multiple skills, variable tasks, everyone does everything, teamwork
Reduce the price by creating competition among suppliers	Lower the cost by establishing long-lasting trust relationships with the suppliers
The supplier keeps information, is not involved in design	Everything is clear, design is the supplier's responsibility
Transfer the inventory burden to the dealers	Just-in-Time, inventory in the necessary amount at the necessary place
Never stop the line if the defect is not crucial	Stop the line, conduct five reasons analysis as a team

Source: Womack et al., 1991, cited by Sezen, B. 2011: 34.

When examined Table 1, it is seen that the items such as flexible structure and long-lasting relationships with the suppliers, just-in-time manufacturing, more internal training and solution of the problem immediately in case of detection of any defect are seen to be different in lean manufacturing systems than in Fordism. These features are a very important alternative in a sense to the mass production understanding, which prescribes a competitive supplier relationship and which does not want the manufacturing to be stopped in any way whatsoever. At this point, it may be asserted that the features embodied by lean manufacturing can reduce the effect of the pressure of competition emerging in the operation sector of the businesses.

Today, business owners or managers take different initiatives to develop the manufacturing capabilities. Agile manufacturing and lean manufacturing are among the initiatives which stand out most in the recent years (Hallgren and Olhager, 2009: 978). When addressed the lean manufacturing system in historical terms, it has started to make its weight felt in the field of manufacturing following the 1970s. This method incorporates such techniques and methods which can react to the markets that are in competition, along with use of scarce resources in hand. The main goal of this method is preventing waste. When considered the new millennium, it becomes further difficult to follow up the speed and change of the events. In this environment, the markets are gradually globalizing and evolving into a more customer-focused state. When taken into account the general characteristics of the customers, they are seen to prefer more diverse, more quality, faster reacting, more reliable goods and services. In addition, continuous

increase of the technological developments, especially the informatics technologies, brings about the developments in both design of the products and the manufacturing processes. All these developments resulted in emergence of the need for agility (Baki, 2010: 291-292). The businesses need to use these new emerging methods in their daily lives so as to be able to adapt to the conditions of the current age and carry on their commercial activities. One of these new methods is agile manufacturing (Küçük and Güner, 2014: 255). The concept of agile manufacturing was addressed theoretically in this context.

2. AGILE MANUFACTURING PARADIGM

2.1. The Concept and Scope of Agile Manufacturing

The businesses want to improve their activities in order to overcome the increasing intensity of competition (Hallgren and Olhager, 2009: 976). As a matter of fact, the unavoidable growth of competitiveness in the business world has resulted in development of different management philosophies. For many years, these management philosophies focused on the competitive advantage relying on decrease of the costs and processes, which is based on mass production and lean manufacturing. However, it was found that a reaction should be given over these philosophies in the markets that have gradually further increasing needs. In other words, other philosophies have tended toward more customized responses, more agile and flexible manufacturing systems (Leite and Braz, 2016: 560).

The concept of agility has emerged in 1991 with recognition of the problem of inability of the conventional manufacturing structure to

the change occurring in the business environment (Hormozi, 2002: 132). Agility can be defined as the ability to closely adapt to the needs of the businesses, corporate systems of which change to attain competitive performance (Vernadat, 1999: 37), an ability across the business addressing together the organizational structures, information systems and logistic processes, and especially the mentalities (2000: 37). While agility is the ability of develop and succeed in a continuous and unpredictable environment of change, it is not only to adapt to the change, but also to be able to make use of the opportunities in a turbulent environment (Maskell, 2001: 5-6). So, this paradigm allows to maintain the competitive advantage (Sharifi and Zhang, 2001: 773).

“Agile”, “lean” and “flexible” are concepts that have been standing out considerably in the last a few years. Setting out from here, the relationship between lean manufacturing, flexible manufacturing and agile manufacturing can be summarized as follows (Sarkis, 2001: 89):

Table 3. The Relationship of Lean-Flexible-Agile Manufacturing

Concept	Definition
<i>Lean Manufacturing</i>	<i>A series of practices trying to eliminate the waste resulting from the system, to minimize the use of resources</i>
<i>Flexible Manufacturing</i>	<i>Being able to restructure and customize a manufacturing line to be able to manufacture different products, totally opposite to a strategy</i>
<i>Agile Manufacturing</i>	<i>A strategy incorporating lean manufacturing and flexible manufacturing, and addressing the business world</i>

Source: Created through compilation from Sarkis, 2001: 89.

Agile manufacturing is firstly a business concept. Its purpose is to put the businesses ahead of their competitors (Manivelmuralidaran, 2015: 156) and to provide the manufacturing flexibility and sensitivity according to the new market needs (Vernadat, 1999: 37). Taking part in the literature as a new manufacturing method, agile manufacturing provides competitive advantage to the businesses implementing it (Hormozi, 2002: 133).

There is an increasing consensus on that agile manufacturing is a necessary element for competitiveness. This concept has been popularized in 1991 by a group of scientists in the Iaccoca Institute of Lehigh University in the USA (Yusuf et al., 1999: 33). At the same time, agile manufacturing has been widely recognized and applied by the manufacturing engineers in the last decade. Agile manufacturing has been developed to be able to manufacture and assemble the products intended for the customer demands (Potdar and Routroy, 2015: 4008).

Agile manufacturing is the capability of the businesses to survive and continue developing in a sustaining and competitive environment (Gunasekaran, 1999:87; Gunasekaran, 1999:1), a new manufacturing paradigm involving high efficiency and quality, which consists of the products and services wanted by the customer and allows moving fast and effectively in the continuously changing markets (Cho and Jung, 1996: 324). It is explained by Bessant et al. (2001) as a concept covering the ability to respond to the changes that will occur in the operation markets of the businesses and the ability to be proactive in the face of intense competition powers (Brown, 2003: 712).

Agile manufacturing is a different manufacturing style which can produce flexible and age-compliant technologies through very skilled and synergistic qualified personnel. In this manufacturing style, collaboration between the businesses should be used at the highest level (Arslan and Özcan, 2017: 152). Accordingly, an agile business is one which embraces change and adapt to it quickly and easily. Agility is restructuring the operations, processes and business relationships in an efficient way. Those businesses trying to implement such types of manufacturing should pay attention not to implement too quickly. These new techniques should be well-deliberated long-term strategic plans. So, agile manufacturing comes across us as a top-down effort across the business (Hormozi, 2002: 132). This manufacturing system has a very important place for the businesses to be able to succeed in their sectors of operation.

2.2. Features of Agile Manufacturing

Agile manufacturing is a manufacturing vision taking its source from lean manufacturing. Elimination of waste is emphasized in lean manufacturing. The necessity of the organizations and facilities to be more flexible and more sensitive to the customers distinguishes the concept of agile manufacturing from lean manufacturing (Gunasekaran and Yusuf, 2002: 1358). According to Goldman et al. (1995), agile manufacturing brings a competitive advantage in an environment which constantly changes unexpectedly. Agile manufacturing has four basic elements (Çetin and Altuğ, 2005: 303).

- Value of the customer is determined by the customer.
- The department and the worker should be always prepared for change.
- The most valuable resources of a business consists of the workers. As a matter of fact, skills of the employees should be made use of at the highest level.
- Virtual collaborations should be established between the businesses.

Manufacturing agility is realized through integrating all resources including technology, people and organization into an independent system coordinated naturally so as to achieve short product development cycle times and respond quickly to the changes which may occur in the market. In this context, features of the agile manufacturing can be expressed as follows (Cheng et al., 1998: 97).

- Agile manufacturing refers to breaking of the mass production molds, and manufacturing of much more customized products which the customers specify when they and where they will use them.
- Agile manufacturing strives for economies of scope instead of economies of scale without high cost which is conventionally associated with product customization.
- The increasing customer preference and expected customer needs are an integral part of the agile manufacturing process.
- It displays an appearance which covers everything instead of being associated only with workshop and factory ground.

- Agile manufacturing adapts to the changes occurring in the market through a virtual business or union of the businesses.
- Agile manufacturing ensures a more transparent and richer information flow between the product development cycles and virtual businesses without geographical and interpretive restrictions.

Comparison of other manufacturing systems with the agile manufacturing systems together with its features will be useful in terms of understanding of the matter more clearly. In this context, the production systems were compared as follows by Hormozi (2001: 137).

Table 4. Comparison of the Manufacturing Systems

Industrial Objectives	Craft Production	Mass Production	Lean Manufacturing	Agile Manufacturing
The importance placed to elimination of the waste	Medium	Low	High	High
Manufacturing level	Low	Medium /High	High	Flexible
Organizational communication degree	High	Low	High	High
Sensitivity to customer demands	High	Low	Medium	High
Need for qualified staff	High	Low	Medium	High
Degree of collaboration between the businesses	Medium	Low	Low	High
Rate of unit cost in small batch manufacturing to unit cost in big batch manufacturing	Same	High	Medium	Same
Delivery periods for existing products	Varies	Short	Short	Short
Product marketing degree	Low	High	High	Low

Source: Hormozi, 2001:137.

When examined the table, it is seen that there was a very different structure especially in the period of craft-based manufacturing than in other periods. One of the elements standing out in the table is the degree of importance placed to elimination of the waste, sensitivity to customer demands, need for qualified staff, and increase of the collaboration between the businesses in the phase of transition to agile manufacturing. At the same time, when examined in terms of manufacturing level, a flexible structure stands out in the agile manufacturing systems. As a matter of fact, attention can be drawn to the operation strategies which the businesses have carried out within the historical cycle and are ought to carry out today in performing their activities.

2.3. Structure of the Agile Manufacturing System

Structure of the agile manufacturing systems has been determined as technologies, systems, strategies and people by Gunasekaran (1999: 99). The topics such as use of hardware, tools and equipment, information technologies are mentioned of in the section of technologies included in the agile manufacturing system structure. The issues of design systems, manufacturing planning and control systems, integration of the system and database management, are dealt with in the systems section. The concepts such as virtual businesses, supply management strategies and concurrent engineering are examined in the strategies section. Qualification and competence of the workers, training and organization are addressed the people section. Likewise, agile manufacturing was broken down in the literature and each subject was investigated in detail. The reason for detailing is the fact that agility

should be present in every field of the manufacturing and business structure. Achieving agility will provide flexibility and the ability to respond in these topics (Tanoğlu, 2018: 41). Structure of the said agile manufacturing system may be detailed as follows.

Technologies: appropriately supported strategies of agile manufacturing will increase the success of ensuring or developing the agility in the businesses. It will be ensured that agile manufacturing is accomplished through technologies involving Internet, Multimedia, Robotics, Electronic Data Exchange, Flexible Manufacturing Systems, Computer Aided Design (CAD) and Computer Aided Manufacturing (CAM) (Gunasekaran, 1999: 99-100).

Systems: in the agile manufacturing paradigm where more than one businesses collaborate under the flexible virtual business structures, there is a big need for a mechanism managing and controlling the information flow between the collaborating workers. In response to this pressure, it is required to develop an agile manufacturing system integrating the manufacturing databases distributed in various common fields. There are many systems integrated with computers, which can be used in the agile manufacturing system; some of which are Materials Requirement Planning (MRP), Enterprise Resource Planning (ERP), Computer Aided Manufacturing (CAM), Computer Aided Design (CAD) and Knowledge Based Systems (KBS) (Gunasekaran, 1999: 101).

As the businesses grow, they tend to develop systems for the purpose of solving the emerging problems. The Manufacturing Resource Planning (MRP II) philosophy is based on centralization and

coordination, and is a method used for planning the resources of a manufacturing business effectively (Tanna and Vyas, 2017: 3). MRP and MRP II systems are used as a planning and scheduling tool for large businesses. In the last decade, a new system was developed as Enterprise Resource Planning (ERP) system from these systems (Koh and Saad, 2006: 109). ERP is a comprehensive computer software allowing management of all business functions from supply to distribution through an information management system (Keçek and Yıldırım, 2009: 241).

Strategies: the long-term decisions considering the restructurability of the entity with the objective of competing in the global market with mass customization are very important for reusing the resources so as to produce quality goods and services (Gunasekaran, 1999:99).

People: the most important problem in an agile environment is how to manage and motivate the workforce in supporting flexibility and the ability to respond (Gunasekaran, 1999: 102). When evaluated from this aspect, importance of being able to manage the workforce correctly in this process can be emphasized.

2.4. The Increasing Importance of Agile Manufacturing

The concept of agile manufacturing has emerged as a global phenomenon for competing and surviving in the turmoil of business environment. Agile manufacturing combines the strategies, existing technology and human resources to defeat the uncertainties in the business environment and provide customer-focused products and

services. Many researchers have exerted numerous efforts for many years by suggesting various frameworks in the field of evaluation and implementation of the agile manufacturing. The manufacturing sector has regarded agile manufacturing as an important way for attaining sustainability in the changing business environment and sensitivity to the variable customer demands (Kumar et al., 2019: 162-163).

Today, one of the biggest problems of the manufacturing firms is the changing customer demands. Changes are happening constantly in the product or manufacturing processes due to the reasons such as the researches and developments conducted, laws and procedures enacted by the government, commercial agreements made, the desire to enter different markets, customer demands, the globalizing market, changes created by competitor firms, or the firms' strategies. Adapting to the planned changes is relatively easy since it advances over a process. However, the ability to control and decide about unexpected changes may distract the firms from their objectives, may even cause great damages (Tanoğlu, 2018: 38). The agile manufacturing approach requires a business to be at world standards and to use the lean manufacturing methods. Agile manufacturing is a start point. Agility can be built on a sound foundation. While agility is important in every sector, it may vary by sectors. It stands out more in the electronic sector and automotive sector (Maskell, 2001: 6). Hence, for the businesses to be able to survive and exist in the environment of competition with the effect of globalizing in the economic conjuncture, they need to transform the conventional manufacturing techniques into lean

manufacturing and from there into agile manufacturing systems (Gökşen, 2003: 42).

The concept of agile manufacturing and agility ensure a producer of goods and services to develop in the continuous and unexpected contest of change (Potdar, 2017: 1746). At the same time, agile manufacturing system is the manufacturing system which can adapt to these with instant knowledge provision to the customers by placing importance to the human resources and software. While the power of this system enables to retain the customers who are more selective with increased knowledge and awareness (Babacan, 2015: 397), it envisages for a business to be open to any kind of innovations and collaborations by making use of the opportunities that will provide competitive advantage to itself (Tekin, 2012: 265). From this aspect, agile manufacturing is perceived as a vital feature which the manufacturing businesses need so as to sustain their competitive advantage in the new world business order (Sharifi and Zhang, 2001: 773). At this point, the importance of agile manufacturing comes across us as an undeniable fact. As a matter fact, the ability of the businesses operating in the global competition environment fulfill their activities along with the requirements of the agile manufacturing system and reach their customers just in time can be set forth as the essential condition of competition today.

2.5. Success Elements in Agile Manufacturing

Enabling the businesses which are in competition in today's changing conditions, agile manufacturing envisages a manufacturing based on operativeness of the businesses, innovativeness, resource usage and flexibility (Tekin, 2012: 265). Five elements stand for successful implementation of agile manufacturing. These elements are determined as government regulations, collaboration between the businesses, information technology, change engineering, and flexibility of workers (Hormozi, 2002: 138).

Agile manufacturing requires provision of products, knowledge and services to the customers without limitation. This can be expressed as provision of not a certain product, but a solution, to the customers. General characteristics of those businesses implementing the agile manufacturing successfully can be expressed as follows (Bal, 2004: 40-41).

- Abandoning the central decision making approaches and at the same time making the decisions at the functional knowledge points,
- Performing design of the products and services by creating an integrated process with the customer,
- Regardless of the manufacturing volume, reducing the variation in the unit costs and creating a stable structure,
- Providing the flexibility whereby product volume and product diversity can be changed,

- Creating an integrated database where all data pertaining to the seller, product or process can be stored, and giving it an easily accessible structure,
- Working with sellers who perform manufacturing with agile system logic,
- Converting the data into information rapidly,
- Making the goal of creating value for the customer is adopted across the business and leaning to this goal,
- Not expecting an extra payment for quality from the customers by presuming the quality,
- Collaborating with the competitor firms besides competition,
- Ensuring the trust environment within the business, creating empowered teams, and designing reward and recognition systems,
- Reducing the dimensions of the businesses.

The basic power behind agility is change (Yusuf et al., 1999: 34). Various fluctuations take place in the competition environment. The crisis occurring in the current market compels many businesses to go bankrupt and this is expressed by the businesses themselves. However, there are businesses which sometimes turn this particular crisis into opportunity. These businesses manage the change correctly. When considered the competition environment, it is seen that many internal and external factors lead to change and that changes frequently sustain. Yet, the businesses do not have much time to wait for adapting to that change. For example, in the face of a great appreciation in the exchange

rate, the firm manager cannot be expected to pursue a strategy like keeping on borrowing in foreign currency. In agile manufacturing method, one should in a proactive, i.e. prudent approach. In addition, while waiting without reacting to the change damages the businesses, acting prudently might sometimes be risky, as well (Tanoğlu, 2008: 47). Accordingly, the businesses need to constantly monitor the changes occurring in the external environment, and have qualifications for being able to respond to the contingencies likely to arise.

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CHAPTER 4

**MACROECONOMIC FACTORS AFFECTING CONSUMER
CONFIDENCE: A TIME SERIES ANALYSIS FOR TURKEY**

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INTRODUCTION

Future expectations in an economy are one of the most important factors affecting the course of economic policies. Consumers' expectations can affect significantly many macroeconomic variable such as consumption expenditures, investment decisions and inflation. While the increase in consumer confidence affects the real economy positively by influencing investment and borrowing decisions, in case of decreasing consumer confidence, households may revise their financial situation and reduce their expenditures (Oral, 2005). Also, consumer confidence can be affected many macroeconomic variables such as interest and exchange rates. In this context, consumer confidence has always been the focus of attention in the literature. Firstly, surveys were made in order to measure the effects of consumer confidence on macroeconomic variables and then, the index, known as consumer confidence index, was formed from the information obtained from the surveys first by the University of Michigan in the 1940s (Ludvigson, 2004).

The notion of consumer confidence is also considered in terms of psychological factors in the economy. Katona (1968) stated that consumers' tendency to spend depends on the purchasing power as well as the willingness to buy. Consumer confidence can vary not only by changes in economic variables, but also by non-economic factors such as political risks and social phenomena (Gürgür and Kılınç, 2015:2). In case of uncertainty in the economy, consumer confidence is negatively affected and this situation may affect investment decisions (Golinelli and Parigi, 2004). The influence of macroeconomic variables on

consumer decisions indicates an interaction between consumer confidence and these variables. Within this scope, in this paper, it is aimed to examine the relationship between consumer confidence and exchange rate, interest rate and unemployment rate.

1. LITERATURE REVIEW

Each variable related to the economic conditions can be considered as a potential determinant of consumer confidence since the consumer confidence index is closely related to the consumer's assessment of the general situation of the economy. Thus, in the literature, it is directly or indirectly asserted that there are very wide range of factors affecting consumer confidence for the analysis of the consumer confidence's determinants. In other words, these determinants can be classified in two main categories as macroeconomic factors and other factors (mostly political factors). Macroeconomic factors include disposable income, gross domestic product, business cycle indicators, industrial production, inflation, unemployment rate, interest rates, stock market indices, asset indicators, house prices and exchange rates. The second category involves elections, political crises, wars and other incidents.

The studies concerning macroeconomic indicators that are considered to affect consumer confidence in the literature are summarized in the table below.

Table 1: Related Literature

Author/s	Period/Country	Method	Result
Gürdür and Kılınç (2015)	2005:Q1-2015:Q4 Turkey	ARDL Bound Test	It is determined that consumer confidence is more sensitive to the increases in exchange rate compared to the decrease in exchange rates, and it is more sensitive to the decrease in inflation compared to the increase in inflation. In addition, it is found that consumer confidence is sensitive to financial volatility. Also, it is concluded that political instability, like election, has an impact on consumer confidence.
Karasoy (2015)	2002:01-2015:06 Turkey	Regression Analysis	Accordingly to the analysis results, the volatility of financial indicators such as exchange rate, interest rate and BIST index negatively affects confidence indices. Furthermore, in the short term, confidence indices are influenced by inflation changes rather than economic activity.
Delorme etc. (2001)	1959 – 1993/ United Kingdom	Regression and Granger causality	It is stated that inflation and interest rate have a negative effect on consumer confidence.
Golinelli and Parigi (2004)	1970:Q1-2002:Q1/ G7 countries	VAR Analysis	Inflation, one of the long-term determinants, affects consumer confidence in Germany while unemployment rate and stock market indices affect consumer confidence in the UK.
McIntyre (2007)	1978:Q1-1998:Q4/ USA	Granger and Sims Causality Tests	In the US, consumer confidence is positively affected by stock returns, economic growth and interest rates; on the other hand, it is affected inflation and unemployment in a negative way.
Ramalho (2011)	1987:Q1-2009:Q4 Portugal	Phillips Curve	Based on the results of the analysis, there is a negative relationship between consumer confidence and unemployment rate and inflation. And, gross domestic product and industrial production positively affect consumer confidence.
Çelik (2010)	2003 December, 2004 January and February/ Turkey	Survey Study, Regression Analysis	In the study, it is found that industrial production, exchange rate and oil prices have an important role in consumer confidence.

2. DATA SET, MODEL and METHOD

In the study, consumer confidence index and macroeconomic factors such as interest rate, exchange rate and unemployment rate are examined. The data of the variables are obtained from Central Bank of the Republic of Turkey (CBRT) Statistical Data (EVDS). The data is in monthly frequency and covers the period of 2012: 01-2019: 09.

The equation established to analyse the effect of macroeconomic factors on consumer confidence is as follows;

$$CCI_t = \alpha_0 + \alpha_1 INTEREST_t + \alpha_2 FX_t + \alpha_3 UNEMP_t + \mu_t$$

In this research paper, Autoregressive-Distributed Lag (ARDL) boundary test approach developed by Pesaran et al. (2001) is applied to investigate the cointegration relationship between the variables. Several advantages of the ARDL bound test model are referred in the literature. One of these advantages is that even though the variables in the model have different stationarity levels, becoming the variables stable at their levels or first differences, ARDL bound test can be applied. Another advantage of this model is that it can give statistically more reliable results than classical cointegration tests since it uses Unrestricted Error Correction Model (UECM). The most important feature of the Unrestricted Error Correction Model is that it contains information about the short- and long-term dynamics of the variables. Furthermore, this method gives healthy results with a low number of observations (Narayan and Narayan, 2004).

3. ANALYSIS FINDINGS

3.1. UNIT ROOT TEST

Time series generally have non-stationary characteristics. Granger and Newbold (1974) implied that a spurious regression problem may be encountered when working with non-stationary time series. In this case, the result obtained by the regression analysis does not reflect the real relationship (Gujarati, 1999: 726).

Table 2. ADF Unit Root Test Results of Series

Variables	Level	1st Difference	Decision
	ADF	ADF	
LNCCI	-3.630 (0.032) [c+t]	---	I(0)
LNINTEREST	-3.318 (0.069) [c+t]	- 6.027 (0.000) [c]	I(1)
LNFX	-3.396 (0.058) [c+t]	-7.227 (0.000) [c]	I(1)
LNUNEMP	-3.746 (0.024) [c+t]	---	I(0)

Notes: Expressions in square brackets represent the probability values of the tests performed, while (c) represent constant.

ADF unit root test results in Table 2 indicate that LNCCI and LNUNEMP become stationary at level, which means that they do not have unit roots at their level. On the other hand, LNINTEREST and LNFX have unit root at their level, and they become stationary when their first differences are taken.

3.2. ARDL BOUNDARY TEST RESULTS

After determining lag length, boundary test developed by Pesaran et al. (2001) is applied in order to investigate the existence of cointegration relationship between the series. Pesaran et al. (2001) presented in their study the critical values of $I(0)$ and $I(1)$ for the boundary test. Accordingly, if the calculated F statistic is greater than the upper limit of the critical values, the null hypothesis stating that there is no cointegration between the variables is rejected and it is assumed that there is a cointegration relationship between the variables. And, if the F statistic is between the calculated upper and lower critical values, there is no conclusion can be reached about the existence of cointegration. In this case, other cointegration tests can be employed. Finally, if the calculated F statistic is lower than the lower and upper critical values, the null hypothesis stating that there is no cointegration can be accepted (Yılancı, 2012: 70).

Table 3. ARDL Boundary Test Results

k	Calculated Statistic	F	Lower Critical Value (I(0))	Upper Critical Value (I(1))
3	4.980	3.23		4.35

Notes: "k" refers to the number of explanatory variables. Lower and upper critical values at 5% significance level are obtained from the tables in the study of Pesaran et al. (2001).

Table 3 indicates ARDL boundary test results. Based on the results, the calculated F statistic is greater than upper critical value at 5% significance level. Hence, it can be concluded that there is a

cointegration relationship between consumer confidence and interest, exchange rate and unemployment in Turkey's economy.

In Table 4, long-run coefficients and diagnostic test results of ARDL (1, 2, 0, 0) model are shown.

Table 4. The Calculated Long-Run Coefficients and Diagnostic Test Results of ARDL Model

Dependent Variable: LNCCI			
Variables	Coefficient	t statistic	P value
<i>LNINTEREST</i>	-0.258	-2.052	0.043
<i>LNFX</i>	0.115	0.983	0.328
<i>LNUNEMP</i>	-0.319	-2.028	0.045
Diagnostic Test Results			
<i>R²</i>	0.70	<i>White</i>	0.3392
<i>Adj. R²</i>	0.66	<i>LM</i>	0.8803
		<i>Ramsey</i>	0.6260

Notes: "White" implies heteroscedasticity test result, "LM" shows Breusch-Godfrey LM autocorrelation test result and "Ramsey" indicates model construction error result.

Based on the diagnostic test analysis, it is determined that there is no autocorrelation and heteroscedasticity problems in the series of variables, and the selected model is suitable.

Accordingly to the results of estimated long-term ARDL (1, 2, 0, 0) model (Table 4), the coefficients of interest and unemployment are significant statistically; however, the coefficient of exchange rate is not statistically significant. Therefore, it can be concluded that increases in interest and unemployment rates cause consumer confidence to decrease in the long-run as expected.

Error correction model results for the short-run are given in Table 5.

Table 5. Error Correction Model Results

Variables	Coefficients	t statistics	P values
<i>ΔLNINTEREST</i>	-0.085	-2.358	0.020
<i>ΔLNFX</i>	-0.242	-1.782	0.078
<i>ΔLNFX (-1)</i>	-0.330	-2.552	0.012
<i>ΔLNUNEMP</i>	-0.105	-1.928	0.057
<i>ECT(-1)</i>	-0.329	-3.906	0.000

On the basis of the short-term coefficients, it is found that there is an opposite relationship between interest rate, exchange rate (excluding current period value), and unemployment rate and consumer confidence index. Hence, in Turkey, when there is an increase in interest rate, exchange rate and the unemployment rate, consumer confidence decreases.

If the results in Table 5 are examined, the coefficient of error correction term ($ECT(-1)$) is determined as -0.329. Negative and statistically significant sign of error correction term indicates that error correction mechanism works in ARDL (1, 2, 0, 0) model. Considering this result, 32% of the deviation in the short term comes back to equilibrium in the next period. Therefore, it is concluded that long-term equilibrium can be reached in approximately 3.5 periods.

4. CONCLUSION

Decision-makers in the economy make their production, consumption and investment decisions depending on the confidence environment in the economy. Therefore, determination of the factors that affect consumer confidence, which is one of the important indicators of the

confidence environment in the economy, is quite significant. In the study, it is aimed that the long and short-term relationship between interest, exchange rate, and unemployment and consumer confidence is examined in Turkey for the period of 2012: 01 – 2019: 09 using monthly data by applying ARDL boundary test approach. Accordingly analysis results, it is stated that interest, exchange rate, and unemployment and consumer confidence are cointegrated in the long-run in Turkey.

When the coefficients indicating the short and long term relationship between the variables are analysed, it is found that increase in interest and unemployment rates lead consumer confidence to decrease as expected. In other words, consumer confidence is sensitive to interest and unemployment rates. It is considered that if policy makers take into consideration this interaction while taking measures against interest and unemployment rates, it contributes to ensure confidence in the economy.

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CHAPTER 5
GREEN MARKETING AND ITS IMPORTANCE FOR
BUSINESSES

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INTRODUCTION

The fact that the world's resources are not limitless as it is thought to be, that the approach of extinction, the environmental problems threaten human health and ecosystem has triggered governments, non-governmental organizations and consumers. Internationally, many countries have taken the path of cooperation to find solutions to environmental problems and set common policies. While meeting the needs of today, the vision of sustainable development has become more important in order to meet the needs of future generations without being jeopardized. Both the legal pressures and the pressures of the consumer and non-governmental organizations have led the enterprises to take the environment into consideration and carry out activities that will not harm the environment. Supporting the environmental protection awareness called green movement in the majority of the society has led enterprises to adopt this movement and develop practices that will cause the least harm to the environment (Üstünay, 2008: 2).

This new development, which encompasses the world, becomes a necessity for businesses to carry out their activities in an environmentally sensitive manner, both for their existence and for the environment to be a sustainable living space. In addition, increasing environmental awareness in the society every day, environmental sensitivity of customers, public interest in environmental events and reactions to the environment, nowadays it is both a necessity and a necessity to question the relations of the enterprises with the environment. Therefore, in order to ensure the sustainability and

sustainability of the environment in which the enterprises are located, the enterprises have to adapt their management strategies to these changing conditions. For this purpose, businesses should perform their activities in accordance with environmental sustainability understanding, while giving more importance to green business practices in line with environmental sustainability (Şenocak and Bursalı, 2018: 162).

Awareness of consumers has increased social pressures, and as a result of pressures from society governments have made various legal arrangements that the businesses have to comply with. The enterprises that have been subjected to these pressures have started to design their production in accordance with this new understanding. In some companies, they have gone beyond their legal obligations and started to apply green marketing approach to reduce or even eliminate environmental pollution and waste on a voluntary basis.

As a result of these developments, the concept of Green Marketing in the literature has become increasingly important for businesses.

1.1 GREEN MARKETING CONCEPT

The concept of green marketing is expressed by different names in the literature. It is seen that different names such as environmental marketing, ecological marketing and sustainable marketing are used to express green marketing.

The concept of green marketing, which was not previously mentioned in the literature, was first discussed by the participants in a seminar on

ecological marketing organized by the American Marketing Association (AMA) in 1975, and it took place in the literature after that. In the first definitions, green marketing; environmental pollution, wastes, energy use and other resource use during marketing activities (Kinoti, 2011: 264). Green issues and traditional marketing can be perceived as opposed to each other at first. Because the environmental problems caused by overproduction and consumption suggest that we consume less, whereas the traditional marketing approach suggests that we consume more than that (Grant, 2008: 18).

Green marketing, consumers and the needs and desires of society to satisfy the changes in order to create and easily implemented in order to create a minimal harm to the natural environment is a collection of activities (Uydaci, 2002: 32). Green marketing is also defined as design, production, packaging, labeling, reaction to the use of goods and services used (Lampe and Gazda, 1995).

In today's competitive environment, it is considered as an important competitive advantage for companies to manage their corporate images well and to consider corporate communication as management performance. It is now impossible to say that businesses are independent of the society and environment in which they live. In recent years, the awareness of consumers about the environment and positive attitudes towards the enterprises and institutions that give importance to the environment will surely affect the business managers. While the ethical understanding, culture, mission and vision of our company are determined by factors such as corporate identity, the approach of the

enterprises to the natural environment and various other environmental elements is considered as one of the important factors that provide corporate image and reputation. As a result of the studies on the protection of the natural environment, which has been in the business literature, especially in the last thirty-forty years, their knowledge has increased considerably and green applications have begun to affect the production and marketing departments of today's enterprises.

Especially one of the most important problems faced by our world in the last 50 years is the extreme pollution of the natural environment and the danger of degradation of environmental values (Keles, 1997: 9). In every country, in various parts of the society, there is an economic growth that cannot be controlled and cannot be kept under control, and one day, worries about the depletion of the natural resources that people depend on in order to survive have started. Green marketing is defined as public interest, which includes the protection of natural resources for the protection of our environment and its development and improvement, the elimination of hazardous wastes that cause environmental pollution, the preservation of historical and cultural values and resources, the elimination of animal and plant species and their extinction by AMA (Armağan ve Karatürk, 2014: 4).

1.2 THE REASONS WHICH HEAD THE BUSINESS TO GREEN MARKETING

It is an important fact that environmental problems were neglected at the firm level until the 1990s. Until that date, it is understood that the

scope of the concept of “environment is under-expressed in the literature about enterprises. When it comes to the environment of the enterprise, social, political and economic and technological factors have been understood and the natural environment has always remained secondary. In short, the fact that the natural environment constitutes the “environment “of all human and business activities has always been ignored. In other words; competitors, customers, employees, government, suppliers and so on are accepted as the environment of the businesses. As seen, this approach does not cover the ecological environment, ie air, water and soil (Nemli, 2001: 1).

Until the beginning of the 2000s, business executives did not pay much attention to the efficient use of the natural resources obtained from the environment. After the 2000s It can be said that they tend towards an understanding that uses environmentally friendly clean technologies in production and adopts environmental protection not only because it requires laws but also as a philosophy (Nemli, 2001: 1).

1.2.1 Benefits of Green Marketing

The dizzying developments in communication technology and the rise in the level of education have led societies to act consciously and sensitively about the environment as well as everything else. This current affects the enterprises closely. As mentioned in the economy books, human needs are infinite, whereas the natural resources necessary to meet these needs are scarce. Therefore, the efficient use of these scarce resources has led to the necessity of being sensitive to the

enterprises in order to prevent all kinds of activities and the use of harmful substances that have a negative impact on the natural environment in which we live. At this stage, consumers have started to attach importance to nature and environmentally friendly products that do not harm the consumer and the natural environment. They have to care about this sensitivity of the society in order to compete and survive.

Today's consumers are determined by the researches that they prefer enterprises that create less pollution, minimize waste or make them harmless, provide more recycling, prefer edible ones in their sources and produce environmentally friendly products. A new market segment called green consumers has emerged and this group of consumers is becoming more and more aware of the protection of the environment, being 'Green, and attracting the attention of company managers and marketers.

In most of the ecology-related research, it has been demonstrated that business executives voluntarily and willingly adapt to environmentally responsible business practices. Today, a growing number of senior executives have become aware of the positive relationship between environmental responsibility and productivity and profitability. People who have taken on the task of communication in enterprises have realized how they can benefit from green marketing strategies in order to increase the environmental image of their businesses (Ottman and Books, 1998: 12).

As a result, the concept of Green Business has taken its place in the literature as the reciprocity of the concept of “Green Consumer”. The most important feature of green enterprises is that they use less raw materials and thus produce less waste and pollution. The fact that they use less raw materials and the amount of dirty waste coming out of the factory chimneys and other waste bins and materials will actually increase the profit of the enterprise to a very high level. Because the production costs will decrease, thus the net profitability of the company will be increased further. The companies that understand and realize the importance of this will try to gain great advantages by accelerating green production by going to total quality environmental management programs (Wasik, 1996: 6).

1.2.2 Internal and External Business pressures About Environment

Today's consumers approach environmental problems with great sensitivity and sensitivity, and they are aware of their responsibilities and expect that they will implement practices that will better protect the natural environment in their activities. These people who aim to protect themselves and the people around them by using their purchasing power are called "Green Consumer (Odabası, 1992).

The rapid increase in environmental pollution, the irresponsible use and consumption of natural resources without considering the needs of the next generation, the endangering of people's future, in addition to misleading and deceptive marketing activities and consumers'

misleading thinking only increased the sensitivity of both the government and civil society groups. issues and the implementation of various measures has prepared the ground.

In recent years, environmental pollution, which has reached incredible levels, the density of industrial wastes and gases, which have increased to a high level with the increase in production, and the resulting global warming, ozone depletion, bring scenarios that may go to the destruction of the World. These situation leads to increasing sensitivity of environment of the society, consumers and non-governmental organizations. As a result of this process, the society which has become conscious has entered into positive expectations from these enterprises. Nothing will be the same for businesses anymore. From now on, businesses will become responsible not only for their profit-making units, but also for the environment and their duties and responsibilities. In short, businesses will have to take into account the interests of all stakeholders, not just their partners.

The globalization process, which is felt in almost every part of the world, has given enterprises a competitive advantage and led them to search for activities that will create value. These efforts of enterprises have provided economic recovery in the countries where they operate, but have led to unprecedented destruction on the ecological environment. For example, the high profit ambition of enterprises has led to pollution of the natural environment, unconscious depletion of world resources, and unrestricted degradation with reduced biodiversity. This has revealed that there is close communication and

interaction between the environment and the economy and has paved the way for sustainable development efforts.

Businesses continue their activities in a dynamic environment. Within this dynamic structure, there are many factors ranging from the employees of the company to its competitors, customers, suppliers and the characteristics of the entrepreneur. With the increase of environmental awareness in individuals and societies, non-governmental organizations and human rights associations become a pressure factor for enterprises and entrepreneurs. The effects that enterprises create on the environment, the necessity of explaining their environmental performance and the effects of the negative consequences on the enterprises force entrepreneurs to think environmentally (Akdoğan, 2003: 74).

1.2.3 Government Pressure and Environmental Regulations

There are various material and spiritual factors for people to live together comfortably and peacefully. As every individual living in the society is left with his / her own behavior, there will be some problems and social life will not have much meaning, so ordering and ordering as a necessity of social life is of great importance. Order requires the existence of a number of norms of behavior for almost every level of society. Here are the rules of the people living in society as a result of conflicts of interest to reconcile, to regulate their behavior and relationships with each other, and thus to ensure that the community to live in peace and maintain the rules created, is called social behavior

rules (Anayurt, 2011: 28). This is the main purpose of the laws enacted by the state. The state has enacted many laws to ensure the social and commercial life. It is important for each individual and commercial enterprises to comply with these laws in terms of social peace. The greatest purpose of the laws is to ensure that people are together and to maintain their lives in a safer environment and to protect them (Bozkurt, 2002: 153).

The legal arrangements made by the state are an important element that surrounds and affects the enterprises. Businesses are not completely free in their activities. They are obliged to continue their activities in accordance with the rights and responsibilities laid down by the law. The legal arrangements that regulate the relations between the individual and the state, primarily constitutional law, administrative law, labor law, criminal law, commercial law, debt and bankruptcy law, contain the rules related to the responsibilities of businesses in business life. There are legal regulations in many areas such as paying taxes at the end of the year, timely granting of employee personal rights, ensuring job security and so on. Businesses must comply with these legal regulations in order to continue their commercial lives, and firms that act on the contrary may be subject to various sanctions. In some cases, one of the important conditions for benefiting from the incentives granted by the state is to comply with the legal regulations of the state.

There are also many legal legislative provisions issued in relation to the environment. Their main purpose is to ensure that people live in a healthier environment, to ensure that plants and animals are not harmed,

to reduce environmental pollution by recycling or minimizing waste, to prevent waste and thus to ensure sustainable growth in future generations. It is a necessity for companies to comply with these legal regulations in order to maintain their commercial lives. Undoubtedly, this situation will create a significant pressure on enterprises not to harm the environment in their production and marketing activities. The Environmental Law and Regulation issued in Turkey for this purpose and Articles 181 and 182 of the Turkish Penal Code of 24 September 2004 aim at sanctions on those polluting the environment.

1.2.4 Increased Environmental Awareness in Consumers

In the last decade, one of the problems that marketers especially in developed countries have to find solutions for is the realization of activities that will not harm the environment. A new movement called “Green Movement çıkmış emerged in the society, which saw the natural environment being degraded. The awareness that the environment should be protected has been accepted and adopted by a large part of the society, and it has been desired to behave in this way in its enterprises and forced to make strategies appropriate to this trend (Odabaşı, 1992: 4).

The technological developments that started with the industrial revolution in the world gained momentum since the end of the 19th century and after the 20th century, and these developments and changes both made life easier and changed. In addition to the positive aspects of this development and change in the technological field, environmental

pollution has increased, natural resources have started to decrease, the ozone layer has been damaged, and some plant species and living species have become extinct and consumers have started to notice.

According to many studies conducted on consumers in the United States, it is understood that technological advances are sufficient for producers to carry out their production activities in an environmentally friendly manner and method in order to eliminate the concerns arising from environmental problems. Another result of these researches is the most important type of behavior that is done with the consciousness of protecting the environment, consumers buying products or product selection, energy-consuming household appliances, recycling and re-use is possible to protect products or packages used to protect the environment. It is the fact that companies that design in a way that they do not prefer their products (Maineri, 1997: 189-190).

In most EU countries, environmental consumers force producers to behave green by not buying products that do not contain "Green Dots" on the product or packaging. Environmentally sensitive individuals who prevent certain works of the enterprises by not taking the products that cause harm to the environment have been organized since the 1960s and started to struggle to protect the environment. These people, who come together for this purpose and are sensitive to the environment, sometimes prefer products that cannot be harmful for the environment by paying high prices and sometimes they organize demonstrations to prevent the damages to the environment by the companies and organizations that do not take into consideration the environment in

their activities, and apply the necessary and necessary places to the environment and cause enterprises to lose points in society and public opinion. These consumer groups, called Green Customers in Western countries, are happy to pay extra prices for the products they buy, considering that they are kind and polite to the world. Because of this approach of the consumer, the future of the companies that will make production sensitive to environmental problems will be good (Gökbunar, 1995: 5).

Because of the developing environmental awareness, more sensitive and sensitive pioneer consumers in the environment, rather than consuming high quality and environmentally sensitive products to buy, prefer environmentally friendly packaged products, consumer actions, short-term thinking instead of long-term thinking, social risk, such as turning to products with less risk , environmentally sensitive and enter into ethical behavior positively affects eco-entrepreneurs (Üstünay, 2008: 118).

1.2.5 Pressure of Voluntary Environmental Organizations on Enterprises

After the destruction of the natural environment reached to a great extent towards the end of the 1960s, the problems and questions about whether the strategies and policies of the classical economic growth models can be accepted have started to be discussed and discussed publicly. The common main topic and agenda of these discussions in front of the society consists of the protection of the natural environment

which is the future of the human generation, making nature one of the common denominators of all people, reducing the harm and destruction to the environment and the like. As a result, the institutionalization movements that started to prevent environmental pollution and incredible destruction have entered into the main agenda of almost every political party and not only in the “green parties siy where politicians deal with these issues (Arslan, 2011: 247).

We can take the history of conservation actions to protect the environment as far as examples in the US and UK. The basic principles and structural form of contemporary protectionism have been realized in these two countries and spread to other countries. However, the emergence of the movement in England is earlier than the United States in the first feature of the seizure (Nicholson, 1972: 163).

In order to maintain and maintain social peace, it has become an inevitable necessity for the protection and support of the interests of groups and individuals who are underdeveloped according to certain sections of society for many reasons, environmental and cultural analysis, and the provision of services such as health, religion, health, politics and the like. The implementation of these requirements is very important in terms of social structure may not provide a direct economic return to organizations and individuals who fulfill these requirements. At this stage, the importance of the functions undertaken by non-profit institutions and organizations emerges, and therefore the need for these organizations is increasing every day (Inal and Bickes, 2006: 2).

Today, in almost all countries, the behaviors of people and companies can affect the environment positively and negatively for many reasons such as overpopulation and technological developments. Where people and businesses and organizations adversely affect the environment, those who harm the environment get a benefit, while the cost (negative side) of this work can be attributed to other people. For example, heavy industrial enterprises that emit their hazardous wastes as a result of their production in a nearby river, lake, sea or air make profit while polluting the environment, and the cost of this is paid by the citizens who live near the industrial enterprise. It attracts people living near this area, or citizens who have to deal with the scum brought by the river hundreds of kilometers away. Such situations can be encountered in many countries. Volunteer environmental organizations not only protect their natural environment but also benefit their social environment.

1.2.6 Social Responsibility of Businesses and Environment

As a reflection of the new economic order, the reliability of the enterprises and organizations in today's information society is closely related to the perceptions created by various economic and social activities on the society. One of the innovations brought by the information society is the close monitoring of the enterprises by the society, which is an important environmental factor. Moreover, in today's environment where it is quite easy to access and share information, it has led to an increase in the activities that people expect from businesses. After these stages, it is possible to state that the society and the public do not expect only the production of goods and services

from the companies, but expect them in other things. People's expectations from businesses have changed, and they want businesses to focus not only on profit-related activities, but also on other activities that are beyond this objective. In addition, the society behaves in such a way that more reputation and as a result of the production activities that create negative consequences for the society in the enterprises are held directly responsible for the various negative (Tosun, 2007: 247).

As it is understood from that, today's modern enterprises, not only producing and marketing their outputs and as a result of gaining profitability from an institution, they have certain obligations and responsibilities to the public institutions and organizations (Becerikli, 2000: 98).

When it is examined in terms of environmental sensitivity, social responsibility can be defined as behaving in accordance with the society, social factors and the expectations of the society while performing the activities of the enterprises (all activities from production to consumption) and behaving in the same sensitivity to the environment. In short, the enterprises try to direct the new technical inventions that are necessary for preventive measures to end the activities that will disrupt the environment, minimize or eliminate the damages of all the existing activities that will disrupt the environment. Businesses should act in a manner that does not harm the environment at all or in minimum level in all their commercial activities due to their social responsibility within the framework of environmental sensitivity.

In order to achieve this (for the future of all living beings and humans), it is necessary to control its activities (Eren, 2000: 127).

1.2.7 The pressure of the competitors

Competition is defined as the activities of two or more enterprises between the enterprises in terms of preferring their own products or services (Yamamoto, 2004: 28).

The concept of competition is a widely used concept in business and it is accepted as an important external environmental factor affecting the business. Companies that do not know how their competitors behave, how they do not follow their strategies and policies on issues such as production and marketing, human resources, finance and the like are doomed to disappear. It is of great importance to analyze and examine the competitive conditions in the sector in which the enterprises engage in commercial activities or where they wish to engage in commercial activities, to present their strategies clearly based on the result of this analysis, and to attract this market share to a higher level in order to maintain the market share of the enterprise.

We should also closely follow the environmental strategies and policies of our competitors. Businesses who want to maintain their presence in today's world and want to have global competitive advantage must make a great effort to minimize waste, keep emissions low and prevent accidents that cause environmental pollution.

According to a globally widespread view, businesses must be customer-oriented if they want to take the lead in competition. Consumers tend to buy quality products cheaply. In addition to quality, ease of assembly of the product, very low material and energy waste throughout the life of the product, a pristine natural environment and more ecological products are offered to the market (Eren, 2004: 2). Naturally, it is not possible to be insensitive to our competitors in order to meet this demand in today's world of competition. Increasingly, our competitors are turning to the environment and producing ecological products will surely affect us and our company.

1.2.8 Anxiety to Reduce Profitability of Insensitivity to Environment

Businesses operate in an external environment where a large number of variables interact and interact. Changes and developments in the environment can provide businesses with a number of opportunities and advantages, as well as many dangers and threats. Therefore, it is important that the managers who manage the businesses both monitor the external environment and anticipate what is happening and what will happen in the future. In order to ensure the continuity of the enterprise, it is very important to follow the changes and developments closely. In order for these activities to run smoothly, the external environment must be analyzed continuously and systematically (Ofluoğlu et al., 2006: 4).

In recent years, many researchers have made researches that consumers are becoming more and more conscious about the environment, and businesses that perceive this situation have revealed that consumers are trying to produce goods and services that are in line with these trends. Significant increase in the number of environmentally sensitive consumers has become an important element to be followed in the external environment for businesses (Ofluoglu et al., 2006: 4).

The practices of the companies applying the Environmental Management System aiming to preserve the natural balance will have a positive impact on the satisfaction of consumers who are sensitive to environmental sensitivity. In other words, if enterprises can adopt environmentally sensitive systems and as a result produce environmentally friendly products, they can reflect this to their customers and other interest groups, thus improving their financial performance and thus their profitability. Businesses should make environmental issues an important part of their strategies and it would be a more reasonable option for them to use technological production systems and processes that generate minimum waste and which are environmentally sensitive (Çınar, 2001).

Businesses that negatively view green marketing practices will have to pay more taxes due to the government's limitation over time, will have to reduce their production due to consumer awareness and unwillingness to buy non-environmental products. serious increases, decreases in profitability levels, and worse, they may face risks such as ending their economic and commercial activities (Uydacı, 2002: 109).

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CHAPTER 6
DISCIPLINE IN BUSINESS AND DISCIPLINE
MANAGEMENT

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INTRODUCTION

‘Classical Management Approach’ and ‘its predecessors’, which dominated the management literature as a result of post-industrial developments, ignored the human element while trying to highlight productivity in organizations. Employees in organizations are defined as an asset that is prone to laziness and should be controlled while doing business. These and similar approaches have led to the spread of strict and punitive discipline in organizations. However, especially the developments and changes experienced after the 1970s had an impact on the perception of the employees as a psychosocial being and the understanding of the importance of human relations in business life. These developments have contributed to the change of strict discipline in the workplaces and to the spread of impunity and positive discipline.

Discipline is an important and indispensable phenomenon for individuals and businesses. Self-discipline of individuals is the key to achieving success and happiness both in private and business life. In addition, in organizations where many individuals come together for a common purpose, the phenomenon of discipline provides extremely important benefits both in achieving business order and achieving business success.

Under the influence of past understanding, discipline and punishment and punishment action are confused. Punishment is the last method of disciplinary action and a limited type of sanction. Although this type of sanction is no longer valid in today's contemporary organizations, it

is seen that punishment is still a practice in enterprises. Although punitive discipline includes only individuals who violate the rules and commit crimes, positive discipline is based on a positive approach that involves all employees and is based on the elimination of the elements causing the offense.

McGregor proposed an fiery stove rule that emphasizes the need for a healthy and effective disciplinary system in an organization with immediate, consistent, advance warning, timely and fair action and a positive approach. A few important features of discipline in organizations; creating self-discipline and sense of responsibility among employees, encouraging them to engage in unifying and positive behaviors, and promoting respect for them and to be it is rewarding in the face of success.

In this section, discipline, discipline in organizations, punishment, types of discipline, disciplinary principles and disciplinary management issues in organizations are explained.

1.1. General Information

It is difficult to explain, predict and analyze human behavior. The most important reason for this is that each person has different and unique characters, attitudes, expectations, goals, perceptions and beliefs. In addition, managers and employees in organizations have different goals, objectives and expectations. These differences, both between people and between management and employees, manifest themselves as a difficulty in acquiring good and useful behaviors and habits for people (employees) and preventing bad and negative

behaviors. Therefore, organizations need to approach human resources, which are the most productive and critical production factors, with a special management style (Nwinyokpugi, 2015: 1; Eren, 2015: 421).

Organizations are groups of people and individuals who work together and work together for a common purpose and goal (Idris and Alegbeleye, 2015: 89). There are generally two different ideas and understandings within the organization. The owners of these ideas are employees and managers. There is occasional confrontation between these ideas and a struggle. The organization and its executives have important duties and responsibilities in order to prevent negative conflicts between managers and employees and to establish a healthy and sustainable relationship between the two sides. At this point, the rules set by the management and how these rules are regulated and applied is important issue (Nwinyokpugi, 2015: 1). In order to maintain order in the workplace and to carry out the works in a healthy way, the works and the operation must be carried out in a certain order within the duties, powers and responsibilities. The most important element in maintaining this order is discipline (Çiçek, 2011: 134).

The Classical Management Approach, which emerged with the Industrial Revolution in the early twentieth century, and the "Scientific Management" theory developed by Frederick Taylor (1911), influenced the order and rules of many organizations. Taylor's approach often envisions a rigid system linked to productivity and

subordinating human beings to a social entity. This has led to an approach in which punitive discipline practices in businesses gain importance. Moreover, according to Henry Fayol's "Management Process Approach", one of the principles that must be followed in the execution of managerial activities is the establishment of a disciplinary system for the execution of works in a certain order and at certain times. According to Fayol, the average (average) person is lazy, often avoids doing business and loses his job. According to this approach, a strict and intolerant discipline and punishment system should be applied to employees. Managers should not rely on their subordinates' work, but should check them frequently. McGregor reveals a type of employee that puts a negative meaning on human with X theory and it is the continuation of the same understanding (Baş and Ardıç, 2003: 1,4; Violanti, 2011: 32-33; Eren, 2007: 15-17, 26). On the other hand, developments such as social movements in the world, globalization, increasing competition, welfare and education levels, developing communication and transportation opportunities, the strengthening of trade unions, increasing the roles of women in business life have led to the formation of new management theories that evaluate human as a psychosocial being (Baş and Ardıç, 2003: 1). These developments have accelerated the shift from a rigid and punitive understanding of organizations to a more flexible and positive understanding of discipline.

1.2. Discipline Concept

Discipline is understood differently by people. Some people see it as a punishment measure that condemns fear when it gets involved in a wrong move; others may regard this as compliance and regularity with rules and regulations (Idris and Alegbeleye, 2015:91) The concept of discipline in French origin corresponds to the meaning of strictness, path, procedure, method, education, submission, self-regulation, acting in accordance with the laws, rules and society order, bringing up and branch of science (Tortop, 1983: 89; Bař and Ardiç, 2003; 3; <http://www.ibb.gov.tr/sites/teftiskurulu/seminerler>). Discipline is the actions that prevent and correct deviations from the organizational rules, regulations, policies and norms of the employees and the sanctions they will face when they act contrary to the organization order (Bař and Ardiç, 2003: 2; <http://www.ibb.gov.tr/sites/teftiskurulu/seminerler>). The first concepts that come to mind when it comes to discipline are sanctions and punishments. However, in the real sense, discipline is not a punishment for anti-social behavior and tendencies; Because of the meaning of the path, procedure, method and science, it is actually an educational way (Orhan, 2003: 10; Bař and Ardiç, 2003: 2). Discipline means self-control, obeying the rules and obedience (Rad and Ya'gobi, 2015: 119). In another definition, discipline is an ability to control based on not performing actions that do not correspond to and support a structure to which the individual actually depends (Mangkunegara and Octorend, 2015: 320).

Discipline is the organization and programming of human activities to achieve a predetermined level of performance. The main purpose of the discipline is to set the work performance standards of the employees and to encourage them to act responsibly in the workplace. Discipline is self-control, self-sacrifice and encouraged regular behavior by employees (<http://www.whatishumanresource.com/employee-discipline>, 30.10.2019)

Discipline is a concept that differs according to problem, employee and situation (Baş and Ardiç, 2003: 2). In terms of the definition of discipline, the authors generally focused on three different definitions. The first is the self-healing, modifying and regulating control mechanism that is self-discipline. The second is the motivation and motivation mechanism to control the individual within the group, that is team discipline. The latter is a type of punishment imposed as a result of an undesired act legally and educationally (Alikaşifoğlu, 1977: 32). The formation of disciplinary behavior involves a complex and time-consuming process. Therefore, efforts to develop disciplinary behavior should be carried out in a continuous and comprehensive manner (Rivai, 2017: 958).

1.3. Discipline and Punishment

Discipline and punishment are often confused. Discipline is not a practice of criticizing or punishing wrong actions. Discipline is intended to prevent destructive behavior and the resulting reaction. Punishment forms a very small part of the concept of discipline; however, it should be used in a limited manner if positive results are

not obtained from the curative and directive initiatives. True discipline is about supporting, defending and rewarding positive and correct actions as well as what needs to be done to prevent problematic behavior. When the employee is disciplined and adheres to the rules of the organization, he / she should know that he / she can be rewarded in the future (high salary, promotion, job security etc.) (Cemaloğlu and Kayabaşı, 2014: 130; Eren, 2015: 399, 421). In order to ensure discipline, first of all the rules must be written, the standards for the works to be done, the principles of the tasks to be executed are taught to the employees and the sanctions should be known in case of violation of the rules (Çiçek, 2011: 134).

The aim of the discipline is to direct and manage people within the framework of certain rules, to punish those who do not comply with these rules and to ensure compliance and to deter those who can turn to the same negative behaviors (Çiçek, 2011: 34). The aim is to teach responsibility rather than obey. This is possible by trying to understand the behavior and preferences of employees and to help them continuously (Nwinyokpugi, 2015: 1). The basis of the discipline is primarily to support and encourage positive behaviors, and to prevent and discourage improper and negative behaviors. Revenge, arouse hatred, digestion, harassment, or personal purposes should not be the subject of punishment or accusation (Baş, 1997: 3). Disciplinary penalties are not intended to intimidate or threaten the individual (s); should be done for the purpose of correcting their behavior, convincing them, preventing the repetition of wrongs and

should not be misused (Tortop, 1983: 90; Kaya, 2005: 86; Karahanoğulları, 1999: 56).

Legal and managerial decisions and practices taken by the state, organizations or managers form the basis of the disciplinary regime. Criminal sanctions shall be applied to persons who do not comply with these rules and decisions and who insist. In this respect, disciplinary law can be considered within the criminal law in a broad sense because it regulates the rules of conduct aimed at protecting the public service order and the legal consequences that follow their violation (Orhan, 2003: 12).

1.3.1. Application of Disciplinary Penalties

Determining disciplinary offense in organizations is a priority task of managers. The manager's observation or conviction that the behavior is a crime that disrupts the discipline is the beginning of disciplinary practices (Cingil and Uyargil, 1997: 9, 23). Managers must be objective, consistent and fair in their observations and observations. Deciding whether a crime has occurred is a very difficult and important stage. In the process of deciding whether a crime has occurred, the following issues should be considered (Cingil and Uyargil, 1997: 9, 25-28).

- a) The punishment should not be directed at the individual, but against his or her behavior.** Punishment or accusation; it should be aimed at correcting the person's misconduct, not personal, revenge and accountability. Maximum efforts should be made to create a perception that the investigator is not acting

personally. Otherwise, the accused can accuse the criminal and organization of intentional or unintentional punishment. In addition, the perception of justice by other employees in the organization will be affected negatively.

b) The penalty must be imposed immediately. The punishment decided with the approach 'delayed justice is not justice' should be applied in time. A delay of this issue may affect the employees negatively and may have negative consequences for the protection of the organizational structure.

c) Penalties should be consistent. While determining the penalties for disciplinary offense, many factors such as the effect of the offense, whether the intent occurred during the offense were intentional or neglected, and whether there are mitigating reasons should be taken into consideration. Crime and punishment must be consistent with each other and equal and consistent for all employees.

d) Punishment should be reminder and instructive. Disciplinary punishments should not be for revenge, oppression, intimidation or accountability. The purpose of the punishment should be to ensure that negative behavior is not repeated and for other employees to remind, teach and deter.

The following points should be taken into consideration while investigating the suspect and deciding the sentence (Cingil and Uyargil, 1997: 28-29).

- i. In determining the appropriate penalty, the circumstances in which the incident took place must be taken into account.
- ii. All parties should be carefully listened to about the incident.
- iii. The accused must be given the right to self-defense.
- iv. Penalties for previous similar incidents should be examined.
- v. The registry file of the personnel to be punished should be examined.
- vi. The purpose and intent in punishment should never be forgotten.
- vii. The penalty shall be communicated to the personnel by the manager.

1.4. Types of Discipline

The types of disciplines are classified under five headings according to their application, content and methods. These; corrective discipline, preventive discipline, gradual discipline, positive (constructive) discipline, negative (punitive) discipline.

1.4.1. Preventive Discipline

The aim of this discipline is to establish a system that employees willingly abide by the rules and rules of the organization, to develop and to prevent crime before it occurs. While creating rules of this type of discipline, the opinions of the employees are taken. Rules are be as simple and straightforward as possible. These rules and regulations are communicated to all employees and explained individually if necessary. This type of discipline provides a more effective discipline policy (Cingil and Uyargil, 1997: 9, 12; Aksoy, 2010: 69,70,86,87; Idris and Alegbeleye, 2015: 93-94). This type of discipline adopts the

way of preventing disciplinary problems before they occur due to their understanding.

1.4.2. Corrective Discipline

Corrective discipline is a disciplinary system focused on punishment to be applied in case of a crime. In this sense, corrective discipline is also called classical discipline, theocratic discipline and negative discipline. The purpose here is to be a deterrent to prevent unintended behavior in the future and to impose sanctions to intimidate (Aksoy, 2010: 87; Cingil and Uyargil, 1997: 10; Idris and Alegbeleye, 2015: 93-94).

1.4.3. Gradual Discipline

Gradual discipline is a type of discipline that aims to give the person who committed the crime for the first time a chance to correct himself, to warn and to make himself correct. Otherwise, if the previously committed crime is repeated, the penalty increases exponentially (Cingil and Uyargil, 1997: 10, 11).

1.4.4. Negative (Punitive) Discipline

Negative discipline has its origins in ancient times. The basis of this approach is the argument that punishment will prevent negative behaviors (Baş, 1997: 16; Aksoy, 2010: 97). In this method, threat and intimidation are at the forefront (Kaplan, 2008: 70). The biggest criticism of the traditional discipline approach is that it is reactive. This disciplinary approach has several disadvantages. These are (Aksoy, 2010: 99-100);

- i. Employees become inefficient when they work in fear of punishment.
- ii. The punishment may be used as a means of as a threat to blackmail, not disciplinary action.
- iii. This system may cause managers to be seen as antipathic to employees.
- iv. Managers who wish to escape from the negative environment of the penalty may ignore the crimes committed.

1.4.5. Positive (Constructive) Discipline

Developments such as the prominence of people's psychosocial needs, increasing the level of education and welfare, and increasing the impact of management approaches emphasizing the importance of human relations have led to the loss of the importance of classical punishment-oriented discipline. Positive discipline has emerged as a result of these developments (Baş, 1997: 19). Self-discipline is a discipline model that focuses on positive behavioral points, based on the idea that there are no bad children, only good and bad behavior. This style of discipline is a fairly new approach, with almost no place for punishment. Correction of unwanted behavior is provided by providing consultant service to the person. In this understanding can teach and strengthen good behavior; the person can be removed from bad behavior without an oral or physical factor. Instead of fear and threat which are elements of punitive discipline, there are suggestions and recommendations. Positive discipline attaches importance to the dignity and honor of the staff. Another difference between positive

(unpunished) discipline and negative (punished) discipline is; While negative discipline is generally applied to those who commit the crime and try to disrupt the order, positive discipline is carried out as an understanding that includes all employees since there is no punishment (Aksoy, 2010: 102, 104; Kaplan, 2008: 70). The differences between positive and negative discipline are summarized below (Baş, 1997: 24-26).

- ✚ Does not force employees, it creates a sense of self-discipline and responsibility.
- ✚ It deals with the future, not the past.
- ✚ Does not threaten, encourages.
- ✚ It is not separatist, it is unifying; respect and security.
- ✚ Sees the employee as an adult individual.
- ✚ Holds the employee and the manager responsible for the solution of the problems.
- ✚ Does not remain silent in the face of success, rewards.

1.5. Discipline Management in Organizations

Each organization has its own set of rules. The main purpose of these rules is to maintain order within the organization, to spread positive behaviors, to prevent or reduce negative behaviors (Aksoy, 2010: 71). Discipline refers to actions that are applied to employees of an organization to adopt the rules, standards, or policies of the organization (<https://www.encyclopedia.com/finance/finance-and-accounting-magazines/employee-discipline>,30.10.2019). Organizational discipline is the adaptation of a staff's behavior to organizational rules,

regulations and criteria (Cingil and Uyargil, 1997:4; Rad and Ya'gobi, 2015: 119). Employee Discipline at workplace can be defined as adherence to the company policies, rules, regulations and processes laid down by the management.

The main purpose of the discipline in organizations is to create a positive organizational climate based on trust in organizations and to keep organizational productivity at the highest level. Accordingly, disciplinary practices in organizations should be ensured that employees behave in accordance with the business performance standards expected from them in line with the objectives of the business. In addition, when discipline is improperly applied in organizations, it can cause problems such as low morale, anger and polarization of managers and employees (Aksoy, 2010: 67-68; Baş and Ardiç, 2003: 2).

The term 'discipline' includes (Henarath, 2017: 773-774):

- i. Employees behave in accordance with the rules and standards of conduct acceptable to the organization.
- ii. To ensure that employees comply with organizational rules.
- iii. Punish them if they don't.
- iv. A managerial structure that encourages employees to comply with the organization's standards.
- v. An educational method for applying organizational rules.

There are two basic principles in providing discipline in organizations. The first is that there is no harm to the organization as a whole, and the second is the protection of the rights of individuals,

that is to ensure job security (Baş and Ardiç, 2003: 2). An important issue here is that there will be no order in the absence of discipline; where there is no order, freedom and democracy cannot be mentioned. Individuals who oppose the rules adversely affect not only the organization, but also other employees and push them to inefficiency.

Another important stage of the discipline is rewarding. Unfortunately, the concept of reward and discipline are not considered together. However, rewarding is a very effective tool in providing discipline in organizations (Aksoy, 2010: 70). On the other hand, when an individual, group and organization is to be rewarded; The scope, degree and size of the award should be proportional to the success achieved (Aksoy, 2010: 110).

The purpose of organizational discipline is to shape the behavior of the workforce through education and training to achieve its goals better. The importance of organizational discipline is given below (<https://www.mbaskool.com/business-concepts/human-resources-hr-terms/15243>) -Organization-discipline.html, 30.10.2019)

- **Protection:** To have a disciplined workforce by ensuring that the working environment is peaceful and provides a sense of security.
- **Improves performance and increases productivity:** Eliminate problems that may arise in situations such as productivity, performance, productivity and continuity at work.

- ***Encourages appropriate and positive behavior:*** Enables all employees to behave appropriately and positively to the image of the company.

Ensuring employee discipline is a widely accepted issue that is a difficult part of every supervisor's job (Cole, 2008). Discipline ensures individuals behave in an acceptable way at the workplace and also adhere to the rules and regulations of the organization. Discipline in organizations is a set of rules and regulations for the employees who put forward the behavior patterns and forms required to achieve organizational goals (Kaplan, 2008: 70). Discipline is a series of actions that are constantly applied to improve the misconduct of employees who violate business policy and standards (Nwinyokpugi, 2015: 2). Discipline is a compulsory element for all organizations in carrying out group activities. Organizational discipline is that business management should apply the rules or regulations that should be followed by all employees and make efforts in this direction (Baş, 1997: 1; Mangkunegara and Octorend, 2015: 321). Disciplinary rules are one of the important elements used in carrying out the activities of their organizations. There are some features that organizations should have in establishing and regulating disciplinary rules (Baş, 1997: 33-36).

- ✚ Disciplinary rules should be up to date.
- ✚ Disciplinary rules should be reasonable.
- ✚ Disciplinary rules should be prepared clearly and clearly.

- ✚ Disciplinary rules should be in writing.
- ✚ Disciplinary rules should be flexible.
- ✚ Positive statements should also be used in the content of disciplinary rules.
- ✚ Disciplinary rules should be prepared in harmony with the environment.
- ✚ Disciplinary rules should contribute to the performance of the work.
- ✚ Employees' opinions should be sought when preparing disciplinary rules.
- ✚ Disciplinary rules should cover all factors affecting productivity in the enterprise.

Poorly designed disciplinary systems and disciplinary practices can lead to productivity losses and reduce employee morale (Franklin and Pagan, 2006:52). Organizations should apply a positive and preventive discipline method. McGregor proposed an 'fiery stove rule' which states that a healthy and effective disciplinary system in an organization needs an urgent, consistent, advance warning system, timely and fair action and positive approach (Apalia, 2017: 5). Discipline must be applied without creating resentment to develop employees in an organization. An organization that manages the discipline well can provide higher employee performance and efficiency. When fully implemented, disciplinary strategies can

protect qualified employees and improve the performance of the organization (Apalia, 2017: 8).

There are many factors that affect discipline in organizations including individual, organizational and environmental. These; individual factors such as personality, motivation, attitudes, expectations, habits; conditions and organizational factors such as working environment, leadership, communication, reward system, sanctions; environmental factors such as social environment, culture and family (Rivai, 2017: 958). However, there are some reasons for undisciplined or disciplinary problems in organizations. Some of them are given below (Baş, 1997: 40-45; Ergişi and Dağlı, 2014: 14):

- ✚ Lack of knowledge of the disciplinary rules determined by the employees (being unaware);
- ✚ Employees misunderstand the disciplinary rules,
- ✚ Lack of complete knowledge and experience of how employees will perform their duties,
- ✚ Employees are not fully informed about what is expected of them,
- ✚ Employees do not believe in the correctness of the way the works are done,
- ✚ Employees do not evaluate the work positively,
- ✚ Employees are not aware of their own low performance,

- ✚ Rewarding low-performing employees and not rewarding or even punishing high-performing employees,
- ✚ Inattention, irresponsibility,
- ✚ Lack of motivation,
- ✚ Excessive stress,
- ✚ Personal problems.

General objectives of a discipline system; to ensure the proper functioning of the organization, to facilitate the organization's work, to ensure that employees adhere to reasonable and acceptable standards of performance and behavior, and in cases of non-compliance with these standards provides reasonable and fair results (Violanti, 2011: 31). Business and organizational discipline contributes to improving the performance of employees and fulfilling their job responsibilities (Mangkunegara and Octorend, 2015: 318). It is difficult for an organization to achieve high efficiency and efficiency before the requirements of the discipline are established (Violanti, 2011: 35; Rivai, 2017: 958).

The starting point of an effective disciplinary system is the correct selection of employees. The prerequisites of an effective discipline system are a good employee selection system, an effective motivation system, making the necessary rules and regulations, and raising the awareness of the employee that the rules are applied (Baş and Ardıç, 2003: 9).

Result

Discipline is an indispensable element for organizations. The common aim of many efforts and practices in ensuring discipline in organizations; is to increase the efficiency of the organization, to prevent the negativities that may occur and to provide a work environment where employees can work happier and more peaceful.

In organizations, a balanced management style should be exhibited in ensuring discipline. Lack of discipline or excessive practice is not the right approach. In this sense, although Discipline is used synonymously with punishment, punishment forms a part of the discipline concept and is a limited discipline tool. Punishment is the practices that are applied by the management to violate the rules of the organization, fail to meet the required performance standard, act contrary to the established order, and to improve the attitude and behavior of the personnel. Punishment should be instructive, reminder and deterrent.

In today's organizations, a positive discipline model is needed. What is important in the discipline is that employees obey the rules at their own will. Applying discipline by intimidating, kills the creativity of the employee and causes the suppressed emotions of the employees to become resentment, hatred and hostility in the future. It is the discipline to control the employee, direct and develop them in accordance with positive and organizational conditions.

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CHAPTER 7

**DEVELOPMENT OF ACCOUNTING STANDARDS
IN TURKEY**

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Introduction

The main task of accounting is to record, classify and report information about the entity's assets and resources in a timely manner. The information generated by accounting should be available in a timely manner, as well as comparable and understandable to meet the needs. Information with these characteristics needs to be analysed and used in a serial manner in order to gain a competitive advantage by businesses. Businesses that make this process fast provide competitive advantage in their sector and are successful. The dizzying developments in science and technology over the past quarter century have led to the globalisation of the world economy and the lifting of Customs walls. The need for an international accounting and auditing mechanism has emerged for businesses to be able to invest in international markets and to address the problems they face in terms of taxation. In order to be effective and efficient, the sources obtained from the investments made by enterprises in different countries, their financial statements must be interpreted in the same language, understandable and comparable. In order to meet this requirement, accounting standards using the same language must be applied at international level.

The increase in investments in international markets thanks to advances in Information Communication Technologies and the impact of globalization has given enterprises the opportunity to export securities to many different countries at the same time. However, this situation, which provides advantages for businesses, has also exposed some risks. The information needed about the countries to invest in, such as

accounting practices, tax laws and security, is extremely important for the profitability and sustainability of the investment. Businesses to invest in compliance with accounting regulations and international accounting standards of their countries to be informed of financial information in the financial statements reflect the truth and accuracy of the strives they want to make sure that(Akdogan, N. 2003: 32).

As a result of globalization, the export figures of the country's economies increased at a very serious level and increased economic relations and made them dependent on each other. In order to increase their market share and make more profits, multinational companies have directed their activities to countries with low labor costs. However, different tax regulations and accounting practices of countries, the confusion encountered in the preparation of financial statements, are some of the problems that businesses face in the beginning. In order to eliminate these differences between countries, studies have started to establish a common international accounting standard. It is a difficult and costly process to prepare the financial statements of investments made in different countries and to convert them into consolidated financial statements and to determine the accuracy of these financial statements. Similar reasons have forced countries' accounting institutions to meet on a common platform. As a result of joint efforts between countries, the establishment of an international accounting standards board was accepted and standards were determined.

The efforts to establish accounting standards in the world starting with IASC in 1973, the need for a common accounting language increased and the financial statements of global capital companies investing in different countries to ensure that the financial statements understandable and comparable, important developments have been achieved and implemented the necessary standards to solve many problems to date. Later, in the process that continued with the IASB, it became an institution with a broader authority for enforcement and auditing of standards. In Turkey the developments in this process, it is seen that the integration effort to provide the end of the 80s. With the establishment of the Public Oversight Accounting and Auditing Standards Authority in 2017, the standard works carried out to ensure compliance with the developments in the international arena are still ongoing. The public oversight institution was established as the sole authority to ensure and audit the integration of accounting standards at the international level.

In this study, the formation process of accounting standards in the world by taking a historical perspective, the development of accounting standards in Turkey are examined.

1. General Information on Accounting Standards

In a study conducted by Kraayenhof in 1959, it was stated that international accounting needs a common language and emphasized the necessity of international accounting standards. Following this call from Kraayenhof, the Accountants International Study Group in the United States was established in 1966, and the study of accounting

differences between the United States, the United Kingdom and Canada was initiated. As a result of these studies, which lasted until 1972, the group proposed the necessity of establishing an international organization for the determination and regulation of accounting standards in the international arena. IASC (International Accounting Standards Committee) was established in 1973 with the participation of countries such as USA, Germany, UK, Netherlands, Canada, Japan, Mexico, Ireland and Australia.

Expectations from the accounting standards established by IASC, financial statements of large capital enterprises with investments in different countries; Transparent, understandable, comparable and realistic arrangement of the procedures and principles that can ensure that. It is also expected that the financial statements will be prepared in a common language to produce useful financial information. It is observed that in the countries that established the IASC on the same dates, the institute of independent accountants and financial advisors, the institute of auditors, and the institutes of sworn financial advisors were established and their institutional identities were standardized.

After 1973, participation from other countries took place in order to support the work of the IASC. IASC continued to work with new contributions and published and implemented international standards on different dates. IASC carried out this duty until 2001, but ended it by transferring it to IASB (International Accounting Standard Boards) in 2001 due to lack of sanction power at international level. The IASB issued several amendments to the standards published before 2001 and

published the new standards under the name International Financial Reporting Standards (Şerifler, Ü. 2012: 1).

There are two main disciplines that regulate the procedures and principles of international financial reporting. The first is the American GAAP: the other is the International Financial Reporting Standards. (IFRS / IFRS: International Financial Reporting Standards).

The members of the European Union and the International Accounting Standards Board Foundation (IASCF), of which Turkey is a member, obliged enterprises to implement IAS and IFRS and continues to carry out auditing duties regarding the implementation of standards (Ağca, A. and Aktaş, R. 2007: 18).

1. Development of Accounting Standards in Turkey

The beginning of infrastructure work and development put into practice in Turkey of accounting standards in the world begins with the removal of an independent accountant and financial advisor law No. 1989 3568. Later, Turkey Accounting Standards Board (TASB), the establishment in a maddeyle1999 added to the Capital Market Law has continued this process. In order to ensure the integration of accounting standards in the international arena, TASB has translated and translated the current International Accounting Standards into Turkish and has been prepared and implemented under the name of TAS / TFRS and SME TFRS. In this process, mandatory auditing application is regulated to include public companies, banks and insurance companies. The TAS / TFRSs have been determined as the beginning year of 2005 in the preparation of the financial statements of publicly-held joint stock companies,

insurance companies and banks and have been compulsory to use. In addition, since 2013, it has become compulsory that capital companies will be subject to independent audit.

In this process, the Capital Markets Board has started the harmonization studies by putting into force the 25 Communiqué on Accounting Standards in the Capital Market 25 25, which includes standards in compliance with IFRS. The Communiqué contains 33 standards. With this communiqué, standards of brokerage houses, portfolio management companies and other companies within the scope of consolidation are obliged to apply (Başpınar, A. 2004: 49).

In this process, the Banking Regulation and Supervision Agency (BRSA) published the Uygulama Regulation on Accounting Implementation 'in 2002. The purpose of this regulation can be expressed as transparency, uniformity in financial statements and accurate, reliable and timely reporting of financial statements. With this regulation, 19 accounting standards have been put into practice in the banking sector (Ibiş, C. and Özkan, S. 2006: 34).

When we look at the historical development of accounting practices in Turkey, it is seen that different countries are affected by accounting practices. It is understood that these effects are more likely to be with countries that we are close to than with economic and political relations. The historical order of this interaction process was as follows (Kocamaz, H. 2012: 111);

- ❖ It is observed that French accounting practices were influenced from the establishment in Turkey until the 1930s.
- ❖ Since 1930, Germany's accounting practices have been adopted and taken place in the legislation of our country. This interaction lasted until the 1950s, and then with the effect of the political and economic rapprochement with the United States, the effects of the laws of this country seem to have led to our accounting legislation.
- ❖ As a result of the revision of the Turkish Commercial Code in 1956, it can be considered as a beginning where there are significant developments in terms of accounting legislation. In this period, since the capital market has not yet been established, the tax accounting approach has led to accounting practices since the companies have only declared their financial statements in terms of tax legislation.
- ❖ In 1972, the Uniform Accounting System was developed to be implemented in the State Economic Enterprises and started to be implemented in the state accounting system. In the same period, the Capital Markets Board was established in 1982 to increase the reliability of the capital market and to protect the rights of investors. The establishment of the CMB is important as it is the first official institution to guide accounting procedures and principles in the capital markets.
- ❖ The most important factor underlying the success of the tax systems in developed countries is the fact that the members of the accounting profession are directing the accounting practices.

Beginning in the 1870s, legal regulations regarding the organization of accounting professionals are observed in most of the USA and European countries. In Turkey, the profession of Accountancy gained a legal status and organization was adopted in 1989 and published with the Law No. 3568 of Free accountancy, free Accountancy and Chartered Accountancy. This development is an important milestone for the accounting profession to gain legal status and have a say in accounting practices.

- ❖ Ministry of Finance put into practice in 1993, " General Accounting System Application Communiqué " with accounting practices in the legal framework in Turkey for the first time gained the procedures and principles. In 1999, Turkey Accounting Standards Board (TASB), established by the Capital Market Law and Article 1 of Annex became operational in 2002. TMSK is the first and only autonomous institution in this field as a public institution having administrative and financial autonomy and having a public legal entity. The members of the TASB consist of a total of 9 members who are appointed to serve for 3 years in various public institutions. As a result of the harmonization efforts of the TASB with the International Accounting Standards Board, a set of 38 accounting standards and 21 interpretations, including one conceptual framework, were translated and put into practice.

- ❖ After the TASB issued standards, BRSA, Undersecretariat of Treasury and Capital Markets Board abolished the accounting communiqués and methods previously issued and applied TASs.
- ❖ With the adoption of the new Turkish Commercial Code in 2011, the Public Oversight Accounting and Auditing Standards Authority was established and took over the powers of the TASB. To protect the rights and interests of the investors within the framework of the powers and duties of the POA as determined by law, and to observe the public interest in the proper and independent preparation of audit reports. At the same time, to provide accurate, reliable and comparable presentation of the information in the financial statements. In this context, overseeing and monitoring the audits of large-scale companies identified as stock market companies, banks and insurance companies are within the jurisdiction of the Public Oversight Institution.

Today in accounting practices in Turkey seems to be of two different accounting regulations. This situation causes some confusion regarding the application of accounting standards. Accounting System Implementation General Communiqué, which was put into practice by the Ministry of Finance in 1994, regulates the procedures and principles in the accounting legislation. Another regulation is the set of TAS / TFRS standards that are obliged to be applied in the preparation of financial statements by the public interest enterprises (PIE). Public interest organizations were determined and published on the website of

the public oversight institution as of 01.09.2016. These; shown in the table below;

PIEs subject to CMB Regulation and Supervision	PIEs subject to BRSA Regulation and Supervision	PIEs subject to the regulation and supervision of the Undersecretariat of Treasury
<p>1- Public Companies Those whose shares are offered to the public, Those whose shares are publicly listed,</p> <p>2- Capital Market Institutions Investment Institutions, Collective Investment Institutions, Independent audit, valuation and rating agencies to operate in the capital market, Portfolio management companies,</p> <p>3- Issuers Mutual funds, Umbrella Draperies</p> <p>4- Pension funds</p>	<p>1- Banks 2- Factoring Companies 3- Financing Companies 4- Financial Leasing Companies 5- Asset Management Companies</p>	<p>1- Insurance companies 2- Reinsurance companies 3- Pension companies</p>

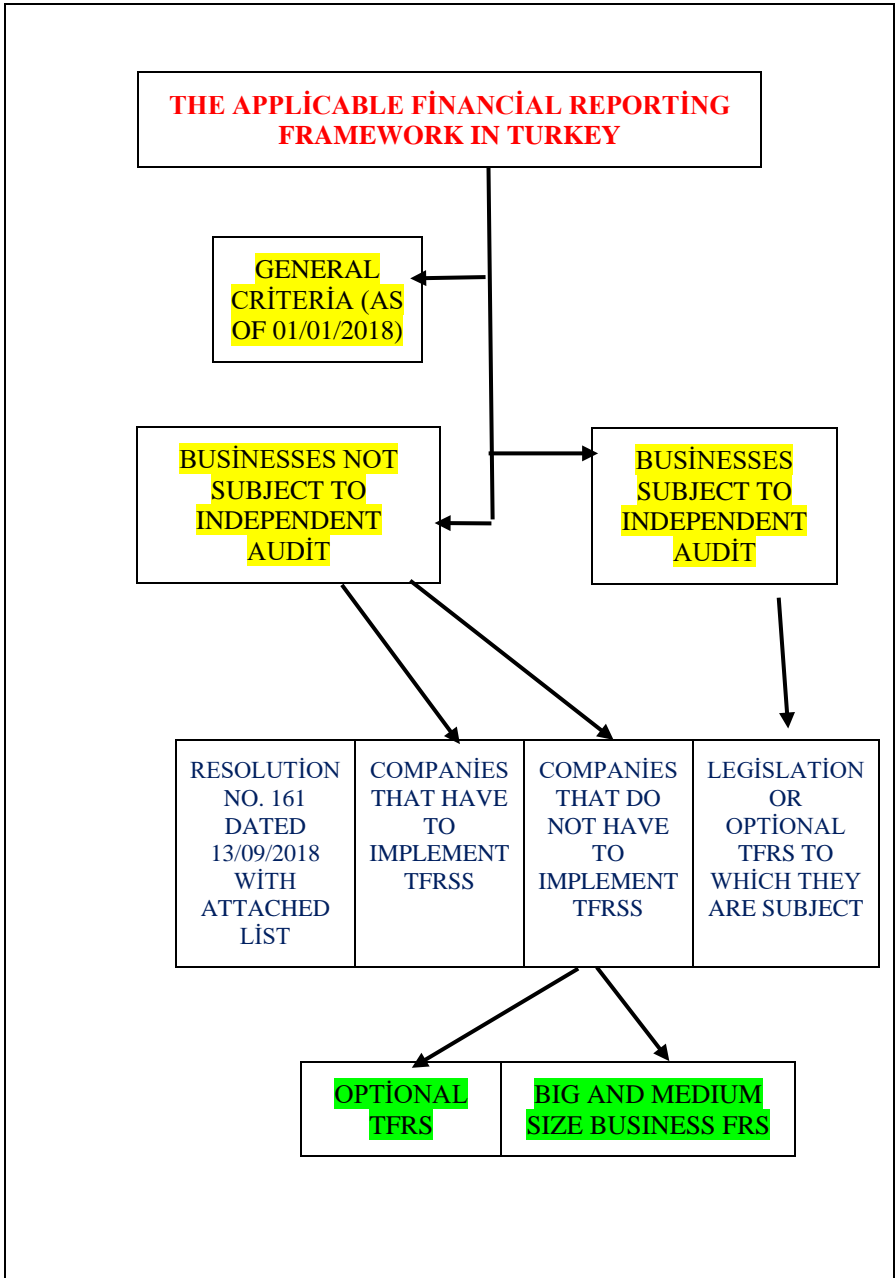
Source: kgk.gov.tr

In addition to these regulations, BOBİ FRSs were issued by the public oversight institution in 2017 and as of 01.01.2018, the obligation for the related enterprises was made.

2.1. Accounting Standards in Turkey

In parallel with the developments in the international capital markets, accounting applications should be continuously updated and updated according to needs. adjustments in accounting practices with the impact of these developments in Turkey are realized in line with global developments. With the new Turkish Commercial Code, harmonization with the international developments in the capital markets and accounting standards has been achieved.

Legislation and practices relating to financial reporting in Turkey that are being used now are shown collectively in the following manner.



The following table shows which enterprises will apply which standards within the scope of the accounting standards specified by the public oversight institution.

<i>TAS/TFRS</i>	<i>BIG AND MEDIUM SIZE BUSINESS FRS</i>	<i>TAX PROCEDURE LAW / GENERAL ASSEMBLY OF ACCOUNTING SYSTEM IMPLEMENTATION</i>
<ul style="list-style-type: none"> • Public interest organizations identified by the POA (PIE). • PIE: Public companies, banks, insurance companies. 	<ul style="list-style-type: none"> • Entities subject to independent audit in accordance with TCC (except PIE) • These entities may apply TAS / TFRS if they wish. 	<ul style="list-style-type: none"> • All enterprises holding books on the basis of balance sheet in accounting applications.

The Financial Reporting Standards, Accounting Standards and Interpretations issued by the public oversight institution, which is currently in practice in its latest form, are listed in the table below.

Turkey Financial Reporting Standards		Turkey Financial Reporting Standards Comments	
TFRS 1	First-time Adoption of Financial Reporting Standards Turkey	TFRS COMMENT 1	Withdrawal, Restoration and Similar Changes in Current Obligations
TFRS 2	Share Based Payments	TFRS COMMENT 2	Members' Stocks in Cooperative Enterprises and Similar Financial Instruments
TFRS 3	Business Combinations	TFRS COMMENT 3	Rights on Shares from Dismissal, Restoration and Environmental Rehabilitation Funds
TFRS 4	Insurance contracts	TFRS COMMENT 6	Obligations from Participation in a Private Market - Waste
TFRS 5	Non-current Assets Held for Sale and Discontinued Operations	TFRS COMMENT 7	TAS 29 Application of Correction Approach in the Scope of Financial Reporting Standard in Hyperinflationary Economies
TFRS 6	Exploration for and Evaluation of Mineral Assets	TFRS COMMENT 10	Interim Financial Reporting and Impairment
TFRS 7	Financial Instruments: Disclosures	TFRS COMMENT 12	Preferred Service Agreements
TFRS 8	Business Segments	TFRS COMMENT 14	TAS 19 Limit of Defined Benefit Asset, Minimum Funding Conditions and Interaction of These Conditions with Each Other
TFRS 9	Financial Instruments	TFRS COMMENT 16	Hedges of Net Investment in a Foreign Operation

TFRS 10	Consolidated Financial Statements	TFRS COMMENT 17	Distribution of Non-Cash Assets to Shareholders
TFRS 11	Joint Agreements	TFRS COMMENT 19	Repayment of Financial Debts with Equity Based Financial Instruments
TFRS 12	Explanations on Shares in Other Entities	TFRS COMMENT 20	Soil excavation costs in the production process of open mining mine
TFRS 13	Fair Value Measurement	TFRS COMMENT 21	Taxes and Similar Liabilities
TFRS 14	Regulatory Procrastination Accounts	TFRS COMMENT 22	Foreign Currency Transactions and Advance Fee
TFRS 15	Revenue from Customer Agreements	TFRS COMMENT 23	Uncertainties Regarding Income Tax Applications
TFRS 16	Leases		

Source: kgk.gov.tr

Turkey Accounting Standards		Turkey Accounting Standards Comments	
TAS 1	Presentation of Financial Statements	TAS COMMENT 10	Government Aids - Non-Special Relationships with Business Activities
TAS 2	Stocks	TAS COMMENT 25	Income Taxes - Changes in the Tax Status of an Entity or its Shareholders
TAS 7	Cash Flow Statement	TAS COMMENT 29	Privileged Service Agreements - Disclosures

TAS 8	Accounting Policies, Changes in Accounting Estimates and Errors	TAS COMMENT 32	Intangible Assets - Website Costs
TAS 10	Events after the Reporting Period		
TAS 12	Income Taxes		
TAS 16	Tangible Fixed Assets		
TAS 19	Employee Benefits		
TAS 20	Accounting of Government Incentives and Disclosure of State Aids		
TAS 21	Effects of Exchange Rate Changes		
TAS 23	Borrowing Costs		
TAS 24	Related Party Disclosures		
TAS 26	Accounting and Reporting in Retirement Benefit Plans		
TAS 27	Individual Financial Statements		
TAS 28	Investments in Associates and Joint Ventures		
TAS 29	Financial Reporting in Hyperinflationary Economies		
TAS 32	Financial Instruments: Presentation		
TAS 33	Earnings Per Share		
TAS 34	Interim Financial Reporting		
TAS 36	Impairment of Assets		

TAS 37	Provisions, Contingent Liabilities and Contingent Assets	
TAS 38	Intangible Assets	
TAS 39	Financial Instruments: Recognition and Measurement	
TAS 40	Investment Properties	
TAS 41	Agricultural Activities	

Source: kgk.gov.tr

1.2. Big and Medium Size Business Frs

The scale of Turkey's economic structure, which has a significant share in large and medium-sized enterprises, the volume of international trade and rapidly developing new markets and the capacity to acquire must be compatible with international standards of financial statements. Financial Reporting Standards for large and medium-sized enterprises were published and implemented in 2017 to ensure this compliance by the ups.

BOBI FRS is a Financial Reporting Standard that regulates the procedures and principles used to regulate the individual and consolidated financial statements of enterprises that do not implement TAS/TFRs, although they are subject to independent audit. This standard was put in place of the accounting procedures and principles set out in 'MSUGT' and 'additional Matters' published in relation to the related businesses.

Big and Medium Size Business Frs	
Chapter 1	Conceptual framework and financial statements
Chapter 2	Statement of cash flow
Chapter 3	Accounting policies, estimates and inaccuracies
Chapter 4	Events after the reporting period
Chapter 5	Revenue
Chapter 6	Stocks
Chapter 7	Agricultural activities
Chapter 8	Exploration and evaluation of Mineral Resources
Chapter 9	Financial instruments and equity
Chapter 10	Investments in subsidiaries
Chapter 11	Investments in joint ventures
Chapter 12	Tangible assets
Chapter 13	Investment properties
Chapter 14	Intangible assets.
Chapter 15	Leases
Chapter 16	Government incentives
Chapter 17	Borrowing costs

Chapter 18	Impairment of assets
Chapter 19	Provisions, contingent liabilities and contingent assets
Chapter 20	Foreign currency translation operations
Chapter 21	Business mergers
Chapter 22	Consolidated financial statements
Chapter 23	Taxes on income
Chapter 24	Dec. Financial Reporting
Chapter 25	Financial Reporting in high inflation economies
Chapter 26	Footnotes
Chapter 27	Transitional provisions

CONCLUSION AND EVALUATION

20. In the last quarter of the century, with the effect of globalization, businesses operating at international level faced major problems in comparing and understanding financial statements prepared according to accounting practices applied in different countries when making investment decisions. In order to solve these problems, efforts have begun to establish international accounting standards which are legally binding and can be applied globally, which use the same language in the international arena, and which have strict rules. First started with the establishment of the IASC in 1973, the work continues with the IASB, an international institution of which more than a hundred countries are members, expanding over time.

In Turkey, accounting standards studies were carried out by the TMSK, which was established at the beginning of the 90's. TMS/IFRS sets have been arranged and put into effect on different dates with the harmonization efforts of tmsk. In 2011, the TMSK transferred this task to the public oversight accounting and Auditing Standards Authority. Since this date, the UPS has made necessary updates to ensure compliance with international standards and has finally issued and enacted Boli FRS. The standards are international accounting rules that provide significant ease for foreign investors to invest more quickly and easily, and create opportunities for their regulated financial statements to present transparent and understandable information.

Today's so-called digital age, new technologies in the field of information and communication force countries to make new

investments in all areas and require them to renew their legal regulations according to this age. It is very important for accounting professional chambers and universities to update the legal processes and course curricula of vocational education, which can adapt to new developments in this process, in order to adapt to the global order. The work of both Turkish Chamber of Accounting and Financial Advisers Association and related faculties of universities on a scientific platform by forming a joint working group on this subject is extremely important for the future status of the accounting profession.

Turkey needs competent and qualified manpower to keep up with the developments in global capital markets in order to meet the 2023 and 2071 targets and to be able to enter the top ten economies of the world. In our country, where the potential of the young population is quite sufficient, evaluating opportunities and capturing the age depends on the realization and implementation of reforms in the field of education as soon as possible.

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