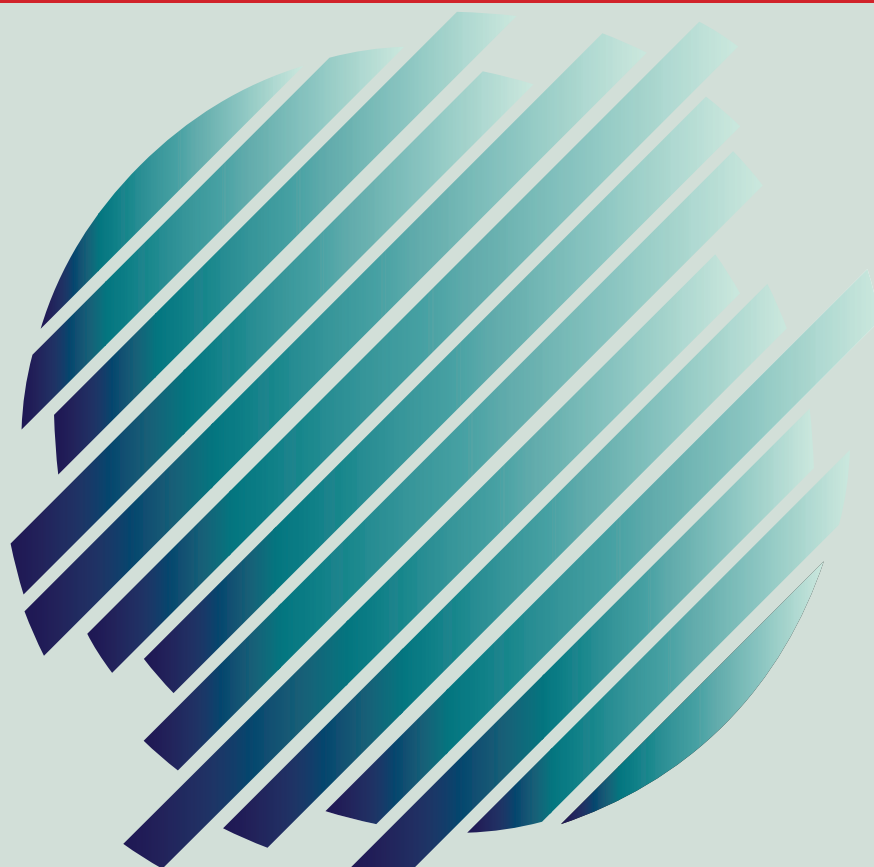


CONTEMPORARY APPROACHES IN BUSINESSES



Editor
Süleyman Uyar

IJOPEC
PUBLICATION
London ijopec.co.uk Istanbul

CONTEMPORARY APPROACHES IN BUSINESSES

**Edited By
Süleyman Uyar**

Contemporary Approaches in Businesses

(Edited by: Süleyman Uyar)



IJOPEC Publication Limited

CRN:10806608
615 7 Baltimore Wharf
London E14 9EY
United Kingdom

www.ijopec.co.uk

E-Mail: info@ijopoc.co.uk
Phone: (+44) 73 875 2361 (UK)
(+90) 488 217 4007 (Turkey)

Contemporary Approaches in Businesses

First Edition, March 2019

IJOPEC Publication No: 2019/05

ISBN: 978-1-912503-69-8

No part of this book may be reproduced, stored in a retrieval system, transmitted in any form or by any means electronically without author's permission. No responsibility is accepted for the accuracy of information contained in the text, illustrations or advertisements. The opinions expressed in these chapters are not necessarily those of the editors or publisher.

A catalogue record for this book is available from Nielsen Book Data,
British Library and Google Books.

The publishing responsibilities of the chapters in this book belong to the authors.

Printed in London.

Composer:

IJOPEC ART DESIGN

Cover Illustrators designed by Freepik

CONTENTS

INTRODUCTION	5
CURRICULUM VITAE	7
1. FACTORS WHICH INFLUENCE IFRS ADOPTION	11
<i>Emin Yürekli</i>	
2. THE CONCEPT OF FRAUD IN ACCOUNTING AND THE FRAUDULENT FINANCIAL REPORTING	27
<i>Dr. Yakup Ülker</i>	
3. ACCOUNTING MANIPULATION	43
<i>Dr. Öznur Arslan</i>	
4. A FIELD RESEARCH TOWARDS DETERMINATION OF SUBJECTS AND METHODOLOGIES OF ARTICLES PUBLISHED ON AUDITING DURING 2010-2018	57
<i>Bilal Solak, Fatih Faydalı</i>	
5. NEW BUSINESS MODELS AND SOCIAL INNOVATIVENESS	69
<i>Dr. Mehmet Karahan</i>	
6. COMMUNICATION IN ORGANIZATION	81
<i>Dr. Süreyya Ece</i>	
7. THE INTERACTION OF TECHNO-STRESS WORK OVERLOAD EXCESSIVENESS IN PILOTS AND THE ROLE OF PERCEIVED ORGANIZATIONAL SUPPORT IN THIS PROCESS	91
<i>Dr. Gökdeniz Kalkın, Dr. Rukiye Can Yalçın</i>	
8. VALUE AT RISK CALCULATION BY NONPARAMETRIC METHODS	107
<i>Dr. Ersin Kanat</i>	
9. INCREASING IMPORTANCE OF FINANCIAL LITERACY FOR ECONOMIC UNITS AND EVALUATION OF ACTIVITIES FOR AWARENESS	119
<i>Dr. Nevzat Tetik</i>	
10. THE INTERRELATION OF EFFICIENCY STAKEHOLDER AND ORIENTATION IN MANAGEMENTS	133
<i>Dr. Mehmet Güven</i>	

INTRODUCTION

Today, businesses are operating in a highly competitive environment in which rapid developments in globalization and information and communication technologies are experienced. With the acceleration of globalization; businesses structures, business sectors, competition patterns, organizational structures, management approaches, manufacturing types etc. started to change. Also, product lifespans are shortened and customer expectations and needs are constantly changing. Due to these developments, businesses have to renew their production technologies, redesign the business processes and adapt them to today's conditions.

The factors that encourage globalization are increasing their importance day by day. Main environmental factors that encourage globalization are:

- * Development of new distribution channels,
- * Decreasing in communication, transport and storage costs,
- * Increasing in R & D costs,
- * Increasing scale economy,
- * Cost pressure,
- * Change in factor costs,
- * Simulation of demand characteristics between countries,
- * Government policies.

In the new World, the old goods and services producer major countries are directing their activities to planning and directing of global production, branding activities and focusing on the non-profit sectors and services sector. Developments in information and communication technology, human-centered philosophies, globalization, and increasingly complex organizational and labor structure have forced to change the management thought. The traditional management approach is replaced by corporate governance in the world. Corporate governance can be defined as a “multi-actor management” based on participation and partnerships.

In order to be successful in global markets, where there is intense competition, all functions of the business should be evaluated together. Achieving success in all processes, from the design of a product to the presentation to the customer, will significantly affect the competitiveness of the enterprise. It became impossible to survive for businesses which can not attune the changes.

Businesses consider the concept of “communication and marketing” more in the new business environment. Many of the enterprises are producing the same goods with the same price, technology and quality and distributing them to the consumers with the same channels. In this process, only the businesses which are making the difference with true marketingcommunication approaches towards their target groups can be successful. In this context, businesses are re-questioning their traditional marketing approaches, reviewing their methods and priorities, and showing more interest in productivity, profitability, control, measurement and evaluation topics.

All of the mentioned developments above are rapidly increasing international trade; financing and investment decisions of businesses and financial reporting standards are shifting from national to international dimension. The increase in international financial relations and developments in information processing technology are increasing

the integration of the financial markets in the world. Differences in accounting and financial reporting standards of different countries are making it difficult to compare the financial information of businesses. In turn, this adversely affects the fund collection process in the capital markets. In order to reduce these mentioned difficulties, it is necessary to harmonize different accounting standards applied in different countries and to speak the same accounting language all over the world.

In the 2000s, accounting scandals, corporate bankruptcies and financial crises all over the world, especially in the USA, had a negative impact on the entire economic system. There are many reasons that revealing the financial crisis. It is considered that some developments in the accounting and financial reporting process have further deepened the crisis process.

The accounting-related reasons of the global financial crisis can be summarized as follows:

1. Departing from the basic principles, rules and concepts of accounting,
2. Creative accounting practices,
3. Problem of transparency
4. The fact that the financial statements do not reflect the reality,
5. The problem of independency,
6. Problems during the valuation process,
7. Valuation with fair value,
8. Failure of providing the benefits completely, expected from a financial statement auditing.
9. The fact that the audit reports do not reflect the reality.

Considering the explanations above as a whole, globalization and developments in information and communication technologies have influenced the business manners of businesses. Especially, accounting, finance, marketing and management functions are highly influenced by this process. In this context, in this study, the possible effects of contemporary approaches in business administration on each of the stated business function above are mentioned. In this book, which consists of 10 chapters; new business models, communication, risk, technological stress, international financial reporting standards (IFRS), financial literacy, auditing, accounting manipulation and fraudulent financial reporting issues were discussed. We believe that the study will be beneficial for business managers, business owners, students studying at undergraduate and graduate level, researchers and practitioners.

Prof. Dr. Süleyman Uyar
Editor

CURRICULUM VITAE

Associate Professor Nevzat Tetik

Chapter Name: Increasing Importance of Financial Literacy for Economic Units And Evaluation of Activities for Awareness

Nevzat Tetik is an associate professor of finance at İnönü University, Malatya, Turkey. He graduated from Business Administration Department of Selçuk University in 1992 and completed his post graduate studies in Business Administration in İnönü University in 1994. In 1998, he obtained his PhD Degree in Accounting and Finance from İnönü University. In 2000, he started to work as an Assistant Professor at İnönü University and since 2018 he has been working as an Associate Professor at the same university. 4 book and 15 international papers and 25 articles of him have been published until today. He has been referee and editor for various journals. He has also been involved in many academic studies such as several projects and some book chapters.

Assistant Professor Yakup Ülker

Chapter Name: The Concept of Fraud In Accounting And The Fraudulent Financial Reporting

Yakup ÜLKER was born in Kırşehir/Turkey in 1969. He graduated from Department of Business Administration, Faculty of Economics and Administrative Sciences, Uludağ University in 1992. In year 1995, He completed his master's degree in Accounting and Finance branch of the Department of Business Administration, Institute of Social Sciences in Marmara University. He holds a PhD degree in 2002 (Accounting and Finance branch of the Institute of Social Sciences in Sakarya University).

In 1993 he started to teaching at accounting and finance department at Dumlupınar University. He worked as an Assistant Professor in Balıkesir University between 2002 - 2016. Also between the years 2010-2013 he worked as an Assistant Professor in Kyrgyzstan Turkey Manas University. Since 2016 he is working as an Assistant Professor at Sivas Cumhuriyet University. He has published more than 13 articles in a variety of journals and 10 papers presented different international conferences. And also he holds two books on the accounting of end-of-period accounting and foreign trade accounting. Asst. Prof. Ülker is a member of MUFAD.

Assistant Professor Ersin Kanat

Chapter Name: Value at Risk Calculation by Nonparametric Methods

Ersin kanat is an Assistant Professor of Finance at Bulent Ecevit University in Zonguldak, Turkey. He graduated from Business Administration Department of Atılım University in 2006. In 2011, he received his master's degree in accounting and finance from Inonu University. He also obtained his PhD degree in accounting and finance from Inonu University. Since 2017, he has been working as an assistant professor at Bülent Ecevit University in

Zonguldak. There are various articles and papers related to the finance. He has also been referee in some journals and he is in editorial board.

Associate Professor Mehmet Karahan

Chapter Name: New Business Models and Social Innovativeness

Mehmet KARAHAHAN is an Associate Professor of Production and Operational Management at Firat University, Elazığ, Turkey. He received his master degree in business administration from Cumhuriyet University in 1997 and he holds a PhD degree from Selçuk University in 2011. In 2012 he started to department of business administration at Batman University. Since 2011 he is working as an assistant professor of production and operational management. He has published about 50 articles in a variety of journals and about 50 papers presented different international conferences. He has a book on Innovation Management in Business and he has a book chapter on performance management. Assoc. Prof. Karahan is a member of Production Research Association and still serving the editorial board of several international journal.

Assistant Professor Gökdeniz Kalkın

Chapter Name: The Interaction of Techno-Stress Work Overload Excessiveness in Pilots and the Role of Perceived Organizational Support in this Process

Gökdeniz KALKIN is an assistant professor of accounting at Muğla Sıtkı Koçman University, Muğla, Turkey. She received his BS degree in business administration from İnönü University in 2006 and continued his work as a research assistant. He holds a MS degree in 2009 and PhD degree in 2016. In 2017 he started to teaching at aviation management department at Muğla Sıtkı Koçman University. Since 2017 he is working as an assistant professor of accounting. She has published more than 10 articles in a variety of journals and 6 papers presented different international conferences.

Dr. Rukiye Can Yalçın

Dr. Rukiye CAN YALÇIN is an English teacher at Gülser Mahmut Tatlıdede Secondary School in Mardin, Turkey. She received her BS degree in American Culture and Literature from Ege University in 2003. Then, she earned a MS degree in Criminal Investigation in 2007 and PhD degree in Defense Management in 2012 from Turkish Military Academy. She has published 2 articles in international journals.

Lecturer Doctor Öznur Arslan

Chapter Name: Accounting Manipulation

Öznur ARSLAN was born in Sivas/Turkey in 1989. She graduated from Department of Business Administration, Faculty of Economics and Administrative Sciences, Sivas Cumhuriyet University in 2010. In year 2012, she completed her master's degree in Accounting and Finance branch of the Department of Business Administration,

Institute of Social Sciences in Sivas Cumhuriyet University. In 2013, she started working as lecturer in Hafik Kamer Örnek Vocational High School of Sivas Cumhuriyet University. In year 2014, she began her doctorate education in Accounting and Finance branch in Department of Business Administration of the Institute of Social Science in Sivas Cumhuriyet University. In year 2018, she completed her doctorate study. At this moment, she is working as Lecturer Doctor in Hafik Kamer Örnek Vocational High School and she has 8 published articles and 5 presentations.

Assistant Professor Sureyya Ece

Chapter Name: Communication In Organization

SureyyaEce started to work as a lecturer in Cizre Vocational School at Şırnak University, in Turkey, in 2009. She had her graduate degree on Business Administration from Anatolia University, postgraduate degree on Marketing from Harran University and PhD degree on Management and Organization from Hacettepe University. After she got PhD she started to work as faculty member at Şırnak University in 2015. She studies on Management and Organization. 20 international and national papers, 5 articles and two international book chapters of her have been published so far. She has also been working on projects, articles and books right now.

Assistant Professor Bilal Solak

Chapter Name: A Field Research Towards Determination Of Subjects And Methodologies Of Articles Published On Auditing During 2010-2018

Bilal SOLAK is an assistant professor of accounting at Sirnak University, Şırnak, Turkey. He received his BS degree on business administration from Selcuk University in 2008 and continued his career as a research assistant in Inonu University. He holds a MS degree in 2010 and PhD degree in 2014. In 2010 he started teaching at accounting and finance department at Inonu University. Since 2015 he is working as an assistant professor of accounting. He has published more than 19 articles in a variety of journals and 11 papers presented different international conferences. And also he has a book on Auditing Quality. Asst. Prof. Solak is a member of MODAV and member of Union of Chambers of Certified Public Accountants Turkey (TURMOB) and still serving the editorial board of several journal.

Research Assistant Fatih Faydali

Fatih FAYDALI is a research assistant in Management department of Kyrgyz-Turkish Manas University. He received his BA degree on business administration from Sakarya University in 2012, Sakarya, Turkey. In 2013 he started his master's degree on accounting and finance. Then he received his master's degree in 2017. In 2018 Mr. Faydali was accepted business administration PhD program in Kyrgyz-Turkish Manas University. He has been working in Kyrgyz-Turkish Manas University as a research assistant since 2017.

Assistant Professor Dr. Emin Yürekli

Chapter Name: Factors Which Influence IFRS Adoption

Emin Yürekli was born in Denizli, Turkey. He graduated department of public finance in Anadolu University. He received his master's degree on accounting from Dokuz Eylül University. He holds a PhD degree from Yaşar University in 2015. He published many paper on International accounting standards, management and cost accounting, accounting programs topics. He have 18 article, 21 paper and 1 book which was written in accounting field. He have been working in Pamukkale University since 2002. Mr. Yürekli is married and he has a child.

Assistant Professor Mehmet Güven

Chapter Name: The Interrelation of Efficiency, Stakeholder and Orientation In Managements

Mr. Güven graduated from Anadolu University, Faculty of Economics and Administrative Sciences, Department of Business Administration in 1991. In 1993, he joined Kahramanmaraş Sütçü İmam University Faculty of Economics and Administrative Sciences, Department of Business Administration as a research assistant. He completed his master's degree and doctorate in İnönü University. After completing his doctoral thesis named "The Effect of the Problems arising from the Relationships of Entrepreneur-Administrator in Industrial Enterprises on Management Functions; An Application in Industrial Enterprises of the GAP Region" on 25.10.2002, Dr. Mehmet Güven has operated, especially in the field of Management and Organization, 7 papers in international symposiums, 15 papers in national symposiums, 1 book of entrepreneurship, 1 international book editing were published in 6 National and International publishing houses the book section, 15 articles published in national refereed journals, 9 completed Master Thesis counselling, 30 national and international citation, and finally 10 years, he has been conducting undergraduate courses such as Management, Behaviour Strategy and Entrepreneurship.

I

FACTORS WHICH INFLUENCE IFRS ADOPTION

Emin Yürekli¹

1. Introduction

The Phenomenon of globalization affects human life in every aspect. The processes which human involved are also implicitly affected this interaction (Güneş et al., 2012). As cross-border operations took significant part of the companies' operations, the need for harmonisation of the accounting rules became the main challenge. Each country had its own accounting rules, which did not provide comparability of the companies' assets or their performance. In the early 70's, the need for increased accountability, transparency, and efficiency in the financial reporting was raised as a very important issue. Therefore, from 1973 to 2001, the Board of the International Accounting Standards Committee (IASC) created a unified accounting language to respond to the demands for accountability, comparability, and transparency. These standards were known as the International Accounting Standards (IAS). After 2001, IASC became the International Accounting Standards Board and started to release International financial reporting standards (IFRS, 2018). The use of these standards reduces the information asymmetry, increases the investment opportunities, and enhances the capital mobility (Young & Guenther, 2002 cited in Nobes, 2016, p. 1). According to Mueller (1967) (cited in Chand and Patel, 2011, p.12), the influence of culture, the economic, social, and the legal system is related to the type of accounting system developed in a country. The main goal of this study is to investigate the influence of the level of economic development of the country, the legal system, political system and culture over the countries' decision on adopting IFRS. The chosen sample consists of 56 countries worldwide, and the impact of the factors mentioned above is analysed in national contexts in order to determine which of the factors have influence over the adoption of IFRS.

2. Literature Review

2.1. Need for IFRS?

The Adoption of IFRS is a synonym for sophisticated financial reporting system. It increases the transparency and comparability of financial information presented in the financial statements (IFRS, 2018). In developing countries, there is often a lack of expertise and other resources for development of their own standards, which has enabled these countries to use IFRS. Furthermore, the finance providers in the global market forced these countries to use widely recognised standards in order to make their finance results comparable and easy to analyse. Moreover, the audit companies find these global standards much more useful and representative. In developing countries, the implementation of IFRS requires extensive devotion, efforts, and resources. This regulation is very common for developed countries, especially among companies which are listed on the world's stock exchanges (Bensadon and Praquin, 2016).

¹ Kyrgyzstan-Turkey Manas University

2.2. Factors that affect the adoption of IFRS

According to Choi and Meek (2011), the introduction of IFRS is determined by several macro-economic variables such as culture, political system, education, legal environment, economic growth, and financing resources.

2.2.1. Cultural dimensions

Culture can be defined as a set of common ideas, beliefs, and values shared by a group of individuals. Moreover, Hofstede (cited in Roberts, Weetman and Gordon, 2002) defines the term culture as collective programming of the mind which is distinctive from other groups of people. Social culture itself determines the accounting rules and practices within the countries. One of the cultural dimensions defined by Hofstede (Hofstede Insights, 2018) can be considered as relevant for accounting and reporting systems - individualism. Individualism can be described as the attitude of the individual in the group. The individualistic economies are characterized as independent and not so collaborative in terms of adoption of widely recognised principles. As opposed to individualistic countries, collectivistic oriented countries are characterised by high level of collaboration and harmonization (Nobes and Parker, 2008).

2.2.2. Economic growth of countries

According to some authors, economic growth is in direct correlation with suitable accounting systems. Moreover, Gray and Roberts (1991) cited in Nobes, 2011 even stated that the wrong accounting system can negatively affect the economic growth of the country. Contrary to this, some authors believe that the economic growth does not correlate with the adoption of IFRS. Zeghal and Mhedhebi (2006, cited in Uchenna and Nnadi, 2016), do not find any correlation between economic growth and the adoption of IFRS. For example, Japan is the second ranked country based on GDP level worldwide, right after the USA, but it fails when the use of appropriate financial reporting system is taken in consideration; it is even considered as *inadequate* by some commentators (Flower, 2002).

Emerging countries, too, tend to use IFRS by which they are signalling to the global market that they are aligned with global trends in terms of quality financial reporting. Moreover, this increases the probability of increased investments and boosts their economy's growth (Uchenna and Nnadi, 2016).

2.2.3. Sources of finance

Companies have two main options regarding the financing sources. However, companies can use equity sources such as the issue of shares or debt finance characterized by obtaining loans or the issue of debt securities (Watson and Head, 2004). Nobes (2014) states that the differences in the financial reporting frameworks are derived from the different purposes of reporting. Moreover, Zysman (1983) has defined three financing systems: capital market, credit based-government, and credit based-financing institutions. Each of these systems has different stakeholders with different levels of interest and influence. For example, systems with a strong equity base and numerous outside stakeholders will demand extensive public disclosures and the required audit. On the other hand, credit based countries have the protection of creditors and the level of distributable income as their main objective, meaning that they do not address demands for disclosures in the financial reports (Nobes, 2014).

2.2.4. Political system

Political forces are related to the government intervention in the accounting environment (Godfrey and Chalmers, 2007). Double entry systems date back to the period of the Renaissance in Italy, after which they were adopted by other European countries. Regarding political enforcement, there is evidence that after the World War II, France introduced the *Plan Comptable* upon requirement by Germany. Moreover, the USA influenced the introduction of its own rules for accounting in Japan after the World War II. The literature identifies that many developing countries accepted accounting frameworks of stronger economies (Choi and Meek, 2011). Moreover, the membership in alliances such as the European Union and the ASEAN is directly correlated with the acceptance of general standards which enable members to speak the same language in terms of finance and capital.

2.2.5. Legal system

The legal system determines how accounting and financial reporting systems are regulated within countries. The literature defines two types of legal systems, countries under common law and countries under code law, originated from the Roman law (Alexander and Britton, 2004). The following countries are regulated under common law: England, Wales, Ireland, the USA, New Zealand, Australia, and Canada. In terms of accounting and reporting requirements, these countries have limited regulations and there are no strict rules regarding the content of financial reports. On the other hand, Germany, France, and Japan have a code system of law. These countries prescribe detailed and strict rules which are included in laws. The financial reporting is less flexible and very procedural as compared to those in the common law countries (Elliott and Elliott, 2002).

3. Methodology

On the basis of the findings above, the assumption can be made that the cultural dimension, the economic growth, the sources of finance dominating in the economy and the membership within some form of political alliances have a significant impact on the decision to adopt IFRS. To test this assumption, we have selected a sample of 56 countries and examined whether these variables are related to the introduction of IFRS (Table 1). Individualism scores from the Hofstede Insights website were used to assess the impact of culture. GDP growth rates for FY 2005² from the World Bank database were used to assess the impact of economic growth. The typical sources of financing in the countries were analysed in relation to the level of public debt by the countries as % of GDP. The type of the legal system enforced by the countries was obtained from the CIA website. GDP data from FY 2005 is used because IFRS were widely adopted during that period.

4. Hypothesis

Based on the findings from the literature review, the following hypotheses have been developed:

H 1: Countries characterised by lower scores of individualism are more likely to have adopted IFRS

The literature review showed that countries with higher scores of individualism tend to use internally developed accounting rules, and do not adopt widely recognized frameworks because their operations are mostly focused

2 The GDP growth rate and the public debt as % of GDP are analyzed for 2005 or earliest available data after 2005, due to the fact that the introduction of IFRS is widely accepted in that period

internally, within the country. On the other hand, economies which are characterized by collectivism operate on global levels and recognise the need for accounting rules widely adopted by the global market players.

Results: The results from the research confirm that the countries with lower level of individualism have adopted IFRSs. From a total of 48 countries, for which there was publicly available data regarding the individualism score, 23 countries have a lower score of individualism (<50) and 19 of them have already implemented the international framework based on IFRS (Table 2).

H 2: The GDP growth rate has direct correlation with IFRS' introduction

Well-developed countries have many multinational companies which are listed on stock exchange lists. The listed companies are legally required to publish their financial reports in accordance with IFRS accounting standards. However, the preparation of the consolidated financial statements of multinational companies with many subsidiaries worldwide is enabled only by the use of unified standards such as IFRS's (Basu and Saha, 2011). Moreover, the development of the countries is related to investors' trust. On the basis of the literature review, the assumption is made that countries with high GDP growth rate have adopted IFRSs.

Results: Research findings do not confirm this hypothesis. The GDP growth rate does not affect the introduction of IFRS's, as countries with low GDP growth rate have adopted this framework as well (Table 3).

H 3: Countries with higher public debt as % of GNP use IFRS framework

The existence of high leveraged entities in the country is in direct correlation with the numerous requirements from the finance providing entities (Uchenna and Nnadi, 2016). Thus, the interested parties are willing to monitor the financial performance through financial reports. This can be achieved through the preparation of financial reports in accordance with widely recognized accounting systems. Moreover, the disclosure and presentation requirements imposed by shareholders and banks are intended to be extensive and with high quality. The adoption of IFRS will reduce the costs and resources required to analyse financial reports.

Results: 31 countries from the selected sample have public debt above 50% of GNP and only 4 of them have not adopted IFRS so far (Table 5). Thus, the level of public debt of the country is positively associated with the adoption of IFRS.

H 4: Countries which are members of political groups such as the EU and the ASEAN are likely to adopt IFRS

The accounting regulation and standards setting process is a political process (Leuz, Pfaff and Hopwood, 2004). The accounting law is enforced by the government authorities. Organized political groups can influence this process of determination of accounting system to their members (Leuz, Pfaff and Hopwood, 2004). For this research we anticipate that countries which are members of political alliances such as the EU and the ASEAN will be harmonized in the field of financial reporting systems.

Results: According to the analysis related to this hypothesis, all countries members of the EU subject to this analysis have adopted IFRS as adopted by the EU since 2005. IFRS Standards are required or permitted both for listed foreign companies and for domestic public companies. The members of the ASEAN group have no obligation to use this unified financial framework, but 6 of 10 countries members of the ASEAN have adopted their own standards which are equivalent to IFRS Standards. From the research conducted (Table 6), the countries which

are members of a particular political group tend to use unified accounting framework such as IFRS, thereby confirming the hypothesis.

H 5: Countries which are regulated under common law are oriented towards the adoption of IFRS

All countries have different reporting systems stipulated by law irrespective of the ways in which they are politically regulated (Flower, 2002). Zeghal and Mhedhby (2006 cited in Nobes, 2008), consider that the adoption of IFRS is more probable in countries regulated under common law. To this end, we have investigated whether countries regulated under common law are likely to adopt IFRS.

Results: This hypothesis has been confirmed due to the fact that out of 14 countries regulated under common law, 11 have already adopted IFRS's (Table 4).

5. Conclusion

Even though the literature and the common practice define many benefits of using this accounting framework, there are many countries and companies which are not adopting it. This research had the main objective to identify which factors, as elaborated by Choi and Meek (2011), affect the introduction of IFRS and how they influence the adoption of this framework. We have analysed 56 countries worldwide and obtained data regarding their individualism scores, the growth rate of GDP as an indicator for economic development, the level of public debt as percentage of GDP as an indicator of the source of finance dominating in the country, the countries members of the European Union and the ASEAN, and the countries regulated under common law. We have used data for the year 2005, which were publicly available due to the fact that IFRS has experienced higher adoption rates during that period. Based on the theoretical contributions to this topic analysed in the first chapter, we made the assumption that cultural dimensions, and more specifically, the individualism score, the economic growth, the political system established within the countries, and the legal system have impact on the introduction of IFRS. The study confirmed all hypotheses except the assumption that the economic growth of the country positively affects the introduction of IFRS.

References

- A. K. Basu, M. Saha (2011) Studies in Accounting and Finance: Contemporary Issues and Debates, p.3-4
- B. Elliott, J. Elliott (2002) Financial Accounting and Reporting, p.135-136
- C. Nobes (2016) Economics and political implications of International Financial Standards, p.1,235
- C. Nobes, R. Parker (2008) Comparative International accounting, p.26,83
- C. Leuz, D. Pfaff, A. Hopwood (2004) The Economics and Politics of Accounting: International perspectives on research trends, policy and practice, p.29, 112
- C. Nobes (2014) International Classification of Financial Reporting: Third Edition, p.20-21
- C. Roberts, P. Weetman, P. Gordon (2002) International Financial Reporting: A Comparative Approach, p. 171-183
- CIA (2018) Available at: www.cia.gov/library/publications/the-world-factbook/fields/2100.html

FACTORS WHICH INFLUENCE IFRS ADOPTION

Emin Yürekli

- D. Bensadon, N.Praquin, (2016) IFRS in a Global World: International and Critical Perspectives on Accounting, p.208-209
- D.Alexander, A.Britton (2004) Financial reporting p.161
- D.Watson and A.Head (2004) Corporate Finance: Principles and Practice, p.31
- E. Uchenna, M.Nnadi, (2016) Economics and Political Implications of International Financial Reporting, p.240, 323
- F. Choi and G. Meek (2011) International accounting 7th edition, p.30-36
- Güneş, R., Durmuş, A. F., Solak, B. (2012). Küreselleşmenin Muhasebe Uygulamalarına Etkisi. Journal of Academic Approaches,3(2), 57-66.
- Hofstede Insights (2018) Available at: www.hofstede-insights.com/product/compare-countries/
- IFRS (2018) Available at: www.ifrs.org/use-around-the-world/use-of-ifrs-standards-by-jurisdiction/
- IFRS (2018) Use of IFRS standards around the world. Available at: <https://www.ifrs.org/-/media/feature/around-the-world/adoption/use-of-ifrs-around-the-world-overview-sept-2018.pdf>
- IFRS (2018). Why global accounting standards. Available at: <https://www.ifrs.org/use-around-the-world/why-global-accounting-standards/>
- J. Flower (2002) Global financial reporting, p.194,33
- J. Maree Godfrey, K. Chalmers (2007) Globalisation of Accounting Standards, p.267
- J. Zysman (1983) Governments, Markets and Growth: Financial systems and Politics of industrial change p.55
- P.Chand, C.Patel (2011) Achieving Global Convergence of Financial Reporting Standards: Implications from the South Pacific region, p. 12
- The World bank (2018) Available at: www.data.worldbank.org/country

Table 1 Adoption of IFRS by countries

Country	IFRS adopted	Note
Argentina	Yes	except for banks
Australia	Yes	Australian equivalents to IFRS
Belarus	Yes	
Belgium	Yes	IFRS as adopted by the EU
Brazil	Yes	
Brunei	Yes	required for financial institutions
Bulgaria	Yes	IFRS as adopted by the EU
Burma/Myanmar	Yes	MFRS which are substantively identical to the 2010 versions of IFRS Standards
Cambodia	Yes	IFRS Standards adopted without modification as Cambodian International Financial Reporting Standards (CIFRS)
Canada	Yes	
China	in progress	
Croatia	Yes	IFRS as adopted by the EU
Cyprus	Yes	IFRS as adopted by the EU
Czech Republic	Yes	IFRS as adopted by the EU
Denmark	Yes	IFRS as adopted by the EU
Egypt	No	IFRS Standards are permitted for listings by foreign companies
Estonia	Yes	IFRS as adopted by the EU
Finland	Yes	IFRS as adopted by the EU
France	Yes	IFRS as adopted by the EU
Georgia	Yes	
Germany	Yes	IFRS as adopted by the EU
Greece	Yes	IFRS as adopted by the EU
Hungary	Yes	IFRS as adopted by the EU
India	No	
Indonesia	No	
Ireland	Yes	IFRS as adopted by the EU
Italy	Yes	IFRS as adopted by the EU
Japan	Yes	4 permitted fin. Rep. frameworks IFRS, Japanese GAAP, Japan's Modified International Standards (JMIS), and US GAAP.
Latvia	Yes	IFRS as adopted by the EU
Luxemburg	Yes	
Malaysia	Yes	IFRS Standards are permitted but not required for domestic public companies
Malta	Yes	IFRS as adopted by the EU
Moldova	Yes	

FACTORS WHICH INFLUENCE IFRS ADOPTION

Emin Yürekli

Country	IFRS adopted	Note
Netherlands	Yes	IFRS as adopted by the EU
New Zealand	Yes	New Zealand equivalents to IFRS Standards (NZ-IFRS)
Niger	Yes	As of 1 January 2019, IFRS Standards are required for all listed companies and companies 'making a public call for capital'.
Philippines	Yes	IFRS Standards adopted as Philippines Financial Reporting Standards (PFRS)
Poland	Yes	IFRS as adopted by the EU
Portugal	Yes	IFRS as adopted by the EU
Romania	Yes	IFRS as adopted by the EU
Russia	Yes	
Saudi Arabia	Yes	
Singapore	Yes	
Slovakia	Yes	IFRS as adopted by the EU
Slovenia	Yes	IFRS as adopted by the EU
South Africa	Yes	
Spain	Yes	IFRS as adopted by the EU
Sweden	Yes	IFRS as adopted by the EU
Switzerland	Yes	IFRS Standards are permitted but not required for domestic public companies
Thailand	No	
Turkey	Yes	IFRS Standards adopted as Turkish Accounting Standards
UK	Yes	IFRS as adopted by the EU
Ukraine	Yes	
United Arab Emirates	Yes	
United States	No	US GAAP
Vietnam	No	

Source: IFRS (2018)

Table 2 Individualism score

Country	IFRS adopted	Individualism score
Indonesia	No	14
China	in progress	20
Singapore	Yes	20
Thailand	No	20
Vietnam	No	20
Egypt	No	25
Saudi Arabia	Yes	25
Ukraine	Yes	25
United Arab Emirates	Yes	25
Malaysia	Yes	26
Portugal	Yes	27
Slovenia	Yes	27
Bulgaria	Yes	30
Romania	Yes	30
Philippines	Yes	32
Croatia	Yes	33
Greece	Yes	35
Turkey	Yes	37
Brazil	Yes	38
Russia	Yes	39
Argentina	Yes	46
Japan	Yes	46
India	No	48
Spain	Yes	51
Slovakia	Yes	52
Czech Republic	Yes	58
Malta	Yes	59
Estonia	Yes	60
Luxemburg	Yes	60
Poland	Yes	60
Finland	Yes	63
South Africa	Yes	65
Germany	Yes	67

FACTORS WHICH INFLUENCE IFRS ADOPTION

Emin Yürekli

Country	IFRS adopted	Individualism score
Switzerland	Yes	68
Ireland	Yes	70
Latvia	Yes	70
France	Yes	71
Sweden	Yes	71
Denmark	Yes	74
Belgium	Yes	75
Italy	Yes	76
New Zealand	Yes	79
Canada	Yes	80
Hungary	Yes	80
Netherlands	Yes	80
UK	Yes	89
Australia	Yes	90
United States	No	91
Belarus	Yes	n/a
Brunei	Yes	n/a
Burma/Myanmar	Yes	n/a
Cambodia	Yes	n/a
Cyprus	Yes	n/a
Georgia	Yes	n/a
Moldova	Yes	n/a
Niger	Yes	n/a

Source: Adapted from Hofstede Insights (2018)

Table 3 Annual GDP growth rate

Country	IFRS adopted	Annual GDP growth rate 2005 or earliest available data after 2005
Ukraine	Yes	-9,773
Belarus	Yes	-3,83
Brazil	Yes	-3,546
Russia	Yes	-2,5
Moldova	Yes	-0,4
Greece	Yes	0,599
Germany	Yes	0,707
Portugal	Yes	0,767
Italy	Yes	0,95
South Africa	Yes	1,299
Japan	Yes	1,354
France	Yes	1,666
Belgium	Yes	2,094
Netherlands	Yes	2,162
Denmark	Yes	2,337
Croatia	Yes	2,347
New Zealand	Yes	2,555
Argentina	Yes	2,735
Finland	Yes	2,781
Sweden	Yes	2,818
United States	No	2,861
Georgia	Yes	2,88
Thailand	No	2,958
UK	Yes	2,972
Switzerland	Yes	3,038
Hungary	Yes	3,148
Canada	Yes	3,201
Australia	Yes	3,202
Luxemburg	Yes	3,216
Bulgaria	Yes	3,617
Cyprus	Yes	3,726
Spain	Yes	3,726
Malta	Yes	3,785

FACTORS WHICH INFLUENCE IFRS ADOPTION

Emin Yürekli

Country	IFRS adopted	Annual GDP growth rate 2005 or earliest available data after 2005
United Arab Emirates	Yes	3,829
Poland	Yes	3,845
Romania	Yes	3,942
Niger	Yes	3,958
Slovenia	Yes	4,003
Saudi Arabia	Yes	4,106
Egypt	No	4,372
Indonesia	No	4,876
Malaysia	Yes	5,028
Ireland	Yes	5,766
Philippines	Yes	6,067
Turkey	Yes	6,086
Czech Republic	Yes	6,442
Burma/Myanmar	Yes	6,7
Slovakia	Yes	6,751
China	in progress	6,933
Cambodia	Yes	7,036
Singapore	Yes	7,489
India	No	8,155
Estonia	Yes	9,374
Latvia	Yes	10,701
Brunei	Yes	n/a
Vietnam	No	n/a

Source: The World Bank (2018)

Table 4 Common law countries

Country	IFRS adopted	Law
Australia	Yes	common
Brunei	Yes	common
Burma/Myanmar	Yes	common
Cambodia	Yes	common
Canada	Yes	common
India	No	common
Ireland	Yes	common
Malaysia	Yes	common
New Zealand	Yes	common
Philippines	Yes	common
Singapore	Yes	common
Thailand	No	common
UK	Yes	common
United States	No	common

Source: CIA (2018)

Table 5 Public debt ratio as % of GDP

Country	IFRS adopted	Public debt ratio as % of GDP (for 2005 or earliest available data after 2005)
Brunei	Yes	2,7
Estonia	Yes	8,8
Saudi Arabia	Yes	17,3
Russia	Yes	17,4
United Arab Emirates	Yes	19,5
Luxemburg	Yes	23
Bulgaria	Yes	23,9
New Zealand	Yes	26,4
Turkey	Yes	28,5
Indonesia	No	28,9
Czech Republic	Yes	34,7
Latvia	Yes	34,8
Cambodia	Yes	35,1
Denmark	Yes	36,4

FACTORS WHICH INFLUENCE IFRS ADOPTION

Emin Yürekli

Country	IFRS adopted	Public debt ratio as % of GDP (for 2005 or earliest available data after 2005)
Romania	Yes	36,9
Moldova	Yes	37,7
Philippines	Yes	37,8
Sweden	Yes	40,9
Australia	Yes	41,6
Thailand	No	41,9
Switzerland	Yes	42,8
Georgia	Yes	44,9
Niger	Yes	46,5
China	in progress	47,8
Slovakia	Yes	50,4
Belarus	Yes	51
Poland	Yes	51,4
Argentina	Yes	52,6
Malta	Yes	52,6
South Africa	Yes	52,7
Malaysia	Yes	54,2
Netherlands	Yes	56,7
Vietnam	No	58,2
Finland	Yes	61,4
Germany	Yes	64,1
Ireland	Yes	68,5
Hungary	Yes	69,9
India	No	70,2
Slovenia	Yes	75,4
Ukraine	Yes	75,6
Croatia	Yes	78,4
United States	No	82,3
Brazil	Yes	84
UK	Yes	87
Canada	Yes	89,7
France	Yes	97
Spain	Yes	98,4
Cyprus	Yes	99,3

Country	IFRS adopted	Public debt ratio as % of GDP (for 2005 or earliest available data after 2005)
Belgium	Yes	103,2
Egypt	No	103,3
Singapore	Yes	110,9
Portugal	Yes	125,6
Italy	Yes	131,5
Greece	Yes	181,9
Japan	Yes	236,4
Burma/Myanmar	Yes	n/a

Source: CIA (2018)

Table 6 Countries members of the ASEAN and the EU

	ASEAN Member	IFRS adopted	Note
1	Brunei	Yes	required for financial institutions
2	Burma/Myanmar	Yes	MFRS, which are substantively identical to the 2010 versions of IFRS Standards
3	Cambodia	Yes	IFRS Standards adopted without modification as Cambodian International Financial Reporting Standards (CIFRS)
4	Indonesia	No	
5	Malaysia	Yes	IFRS Standards are permitted but not required for domestic public companies
6	Philippines	Yes	IFRS Standards adopted as Philippines Financial Reporting Standards (PFRS)
7	Vietnam	No	
8	Thailand	No	
9	Singapore	Yes	
10	Laos	n/a	

FACTORS WHICH INFLUENCE IFRS ADOPTION

Emin Yürekli

Country member of the EU	IFRS adopted	Note
Belgium	Yes	IFRS as adopted by the EU
Bulgaria	Yes	IFRS as adopted by the EU
Croatia	Yes	IFRS as adopted by the EU
Cyprus	Yes	IFRS as adopted by the EU
Czech Republic	Yes	IFRS as adopted by the EU
Denmark	Yes	IFRS as adopted by the EU
Estonia	Yes	IFRS as adopted by the EU
Finland	Yes	IFRS as adopted by the EU
France	Yes	IFRS as adopted by the EU
Germany	Yes	IFRS as adopted by the EU
Greece	Yes	IFRS as adopted by the EU
Hungary	Yes	IFRS as adopted by the EU
Ireland	Yes	IFRS as adopted by the EU
Italy	Yes	IFRS as adopted by the EU
Latvia	Yes	IFRS as adopted by the EU
Malta	Yes	IFRS as adopted by the EU
Netherlands	Yes	IFRS as adopted by the EU
Poland	Yes	IFRS as adopted by the EU
Portugal	Yes	IFRS as adopted by the EU
Romania	Yes	IFRS as adopted by the EU
Slovakia	Yes	IFRS as adopted by the EU
Slovenia	Yes	IFRS as adopted by the EU
Spain	Yes	IFRS as adopted by the EU
Sweden	Yes	IFRS as adopted by the EU
UK	Yes	IFRS as adopted by the EU

2

THE CONCEPT OF FRAUD IN ACCOUNTING AND THE FRAUDULENT FINANCIAL REPORTING

Dr. Yakup Ülker¹

1. CONCEPT OF FRAUD AND ITS EFFECTS

The information created by the accounting department in the companies is called financial information. Although many regulations have been made in order for the information created by the accounting department to be reliable and accurate, many persons in relationship with the companies have falsified the financial information in order to take advantage. This decreased the reliability of financial information. The financial scandals seen in the 2000s led people to focus on the concept of fraud.

The term fraud refers to “*any sort of trick, organization, scheme, and intrigue aiming to defraud a person*”.²As an intentional action, the fraud can be defined as deceivingly acquiring a valuable thing or avoiding a responsibility/liability in parallel with person’s own interest (Hacıhasanoğlu and Karaca 2015: 118). The fraudulent activities are also seen in the businesses, as in many domains of daily life. The accounting frauds in companies are generally defined as “*false presenting or not presenting the company’s assets and sources, illegally using them for personal interest*” (Küçük and Uzay, 2009: 3). About the concept of fraud, the Association of Certified Fraud Examiner (ACFE) emphasized “*deriving a profit from defrauding the others*”. The *accounting fraud* can be defined as the preparation of account records and flows on the contrary to the accounting and tax principles.

At this point, the intentional and unintentional use of the company’s assets, sources, and potential revenues in order to derive personal benefit and acquiring illegal benefit refer to the presence of fraud. The accounting frauds and the reflection of these frauds to the financial tables damage the intra- and extra-business interest groups and it places the accounting and auditing professions under question.

The frauds are considered as the situations exceptionally seen in daily life. However, the studies on the companies showed how frequently the corporate frauds can be seen. It is impossible to measure the frequency and costs of frauds in companies because most of the frauds are not revealed, and the revealed ones are generally not declared outside the company in order to prevent any reputational loss. Given the detected frauds, the frequency and costs of the accounting frauds can be estimated using the statistical methods (Şengür, 2010: 11). According to the ACFE 2016 report, the companies annually lose approx. 5% of their assets and revenues to the frauds.

Given the annual worldwide production, the annual loss of companies is approx. 3.7 Trillion \$.³The unearned income and loss arising from the frauds are not limited to the parties but they directly or indirectly reflect to the intra- and extra-business environments.

1 Sivas Cumhuriyet University

2 http://www.tdk.gov.tr/index.php?option=com_gts&sarama=gts&guid=TDK.GTS.55313cd905ab48.29179258 (17.04.2015)

3 www.acfe.com, Report to Nations on Occupational Fraud and Abuse- 2014 Global Fraud Study.

The deterioration in income distribution, unearned income, misuse of sources, economic loss of the state, and weakening social capital in environments where there is no trust can be shown as the examples to the negative results of frauds (Şengür, 2010: 12). *Many national and international regulations have been made in order to prevent or eliminate these negative effects. Getting a favorable result from these regulations depends on the effective functioning of internal and independent auditing mechanisms.*

2. ELEMENTS OF THE CONCEPT OF FRAUD AND THE DIFFERENCES FROM ACCOUNTING FAILURES

There is on generally accepted definition of fraud. However, the common point of definitions is the presence of dishonesty and deceptiveness. For instance; according to a definition, the corporate fraud is “the acquisition or illegal use of the assets of a company or a person through various tricks and deceptive actions” (Özeroğlu, 2014: 181). Given the definitions in the literature, the accounting fraud can be defined as *deceiving and damaging some of the parties in favor or to detriment of company*. The defrauder or third parties acquire illegal interest from the fraudulent transaction. At this point, it can be said that the concept of “fraud” covers all the crimes committed in order to derive benefit by using various tricks.

From a wider perspective, the concept of fraud can be explained as acting or encouraging for acting or complicating in acting on the contrary to the regulations on printed and digital environments not within the knowledge of relevant interest groups and in bad faith during the creation, documentation, recognition of the events expressed in money, as well as reporting them to the interest groups that have relationship with the company (Bayraklı et al., 2012: 51)

The main components of a fraudulent activity are as follows:

- It is a secretly performed activity,
- The fraud provides the defrauder with a benefit,
- There must be the intention,
- There must be damaged party.

For the presence of fraud, all these 4 factors should exist (Çitak, 2007: 21).⁴The terms “fault” and “fraud” are confused with each other in accounting. Although both of them are related with keeping the records on the contrary to the accounting principles, the factor “intention” distinguishes them. There is no intention in fault, but the fraud incorporates the intention. In fault, the errors in financial tables arise from the professional illiteracy, lack of attention, and negligence without any aim of acquiring benefit, whereas the errors in fraud are intentionally made in order to acquire a benefit.

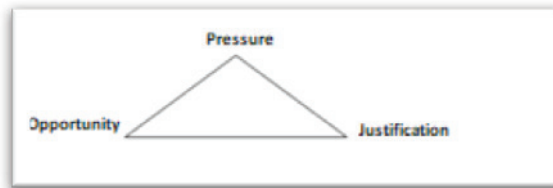
Differently from the fault, the presence of intention in fraud also requires the punishment in accordance with Tax Procedure Law (TPL). From the aspect of criminal law, the tangible components of fraud are the records kept on the contrary to the accounting principles, whereas the moral element is that the action must be intentionally or knowingly taken.

4 Another concept that can be confused with fraud is the faulty activities. However, the most prominent factor distinguishing the fraud from fault is the intention. The presence of intention indicates the fraud. But, in real life, it may sometimes be impossible to detect the presence of intention (Dumanoglu, 2005, 347;350).

3. REASONS FOR ACCOUNTING FRAUDS

The reasons for corporate frauds have been determined in a study, in which Cressey has interviewed with approx.200 defrauder prisoners. At the end of that study, Cressey established the theory called “Fraud Triangle” and listed the reasons leading the people to the fraud as “**pressure, opportunity, and justification**” (Jafarova, 2009:12). Although the presence of these three elements in the environments, in which the fraud has occurred, was accepted, one of these elements was deemed enough for the potential of fraud (Skosen 2004: 7).

Figure 1: Fraud Triangle



Source: Coenen, T.L., 2012, *Essentials of Corporate Fraud*, p :10.

The pressure generally arises from the financial needs of defrauder. The reasons for this may be the gambling, bad habits, or desire for living in luxury. Having the sufficient knowledge and opportunity for successfully completing the criminal activity, and the lack of management and internal auditing are considered to constitute the “opportunity” element. Justification is the presence of various defense mechanisms when the defrauder is caught (Bayraktar, 2007:19). Meeting the non-realistic expectations and rewarding the high performance with bonus create a pressure from the aspect of defrauders. An oppressive management’s desire of keeping the performance at high levels may lead the personnel to the fraudulent activities.

The insufficiency of internal control and auditing system that can prevent the fraud constitutes the opportunity of defrauding. In order to justify the fraudulent activities, the defrauders allege pretexts for convincing themselves.

Considering that the factors pushing the people to fraudulent activities are pressure, opportunity, and justification (the elements of fraud triangle), can anybody under pressure defraud by justifying himself/herself? Even if there is an opportunity, can any person realize or take advantage of such an opportunity? In order to realize the existing opportunities, to evaluate them, and to defraud, the persons should have specific competences (Arslan, 2018: 8). In other words, it can be said that one of the factors leading the people to fraud is the ability of defrauding. By adding the element “having knowledge and competence for defrauding” to the triangle, we obtain the quadrangle of fraud.

4. TYPES OF PROFESSIONAL FRAUDS FROM THE ASPECT OF DEFRAUDERS

The corporate frauds are generally divided into 5 classes according to the defrauder component. These are the personnel frauds, management frauds, investment frauds, seller frauds, and client frauds. The frauds not fitting to any of these classes are classified into the “other frauds” group. In Table 1, the type of fraud, the parties committing these types of frauds, and the victims of frauds are summarized.

Table 1: Types of corporate fraud by the defrauder actors

Type of Fraud	Victim	Defrauder	Description
1. Personnel frauds	Employer	Employees of the company	Employees directly or indirectly steal from the employer.
2. Management frauds	It may be any of the parties interested in the company.	Top management	The top management generally misrepresents the financial information.
3. Investment frauds	Investors	Persons	The investors are directed to investing money to the fraudulent investments.
4. Seller frauds	Companies buying goods or services	Seller companies or employees	Sellers increase the prices or to not deliver the goods or services, price of which has been paid.
5. Client frauds	Companies selling goods or services	Clients	The clients cheat the sellers by giving false information.

Source: Şen, Ç.(2013), *İşletmelerde Çalışan Hilelerinin Tespiti, Ortaya Çıkarımı ve Önlenmesi*, p: 7

The use of company assets by the employee in favor of his or any 3rd person's interests and in the way damaging the company is defined as personnel fraud. This type of fraud is called direct personnel frauds if it is in form of stealing cash money or peculation of inventory or fixed assets. The relationship of personnel with the company's providers, clients, and other 3rd parties having trade relationship with the company are called indirect personnel fraud. It is the most frequently seen type of fraud. It is seen more frequently among the personnel employed for 1-5 years (Şen, 2013: 8-12).

The management frauds are the fraudulent actions of top managers of the company and they are generally performed in the form of misrepresenting the financial tables (Ertürk, 2010: 26).⁵This is a type of fraud that may damage all the shareholders and all the financial information users. Although it is less frequently seen, this type of fraud gives the highest amount of loss. The damaged party is generally the investors, creditors, state, and even the company's own (Şen, 2013: 16 & Özeroğlu, 2014: 189).

The investment frauds are the actions aiming to acquire the savings of investors by making misleading promises. These fraudulent activities may have very detrimental results that may suddenly erase all of the savings of individuals. In this type of fraud, the trust element is exploited and the investors are convinced in investing money to the unproductive domains.

The seller frauds are the fraudulent activities performed by the parties selling goods or services to the company. This type of fraud may be performed solely by the seller or in cooperation with an employee of client company. However, the damage in latter option is higher and it may become continuous. The low-quality and short delivery by the seller can be shown as an example to this type of fraud (Ertürk, 2010: 29). The most frequently seen seller fraud is that the sellers acquire benefit by paying bribe to a personnel or a company of public institution in order

5 Affecting the actors related with company and making wealth transfer between the actors by reporting the results of operations and financial status on the contrary to the accounting standards and in the way different from the reality is named fraudulent financial reporting (Ertürk, 2010, 27 & Yaman, 2008, 163). Reporting the operational results and financial tables on the contrary to the accounting standards is also named "accounting manipulation" (Demir & Bahadır, 2007, 104-106).

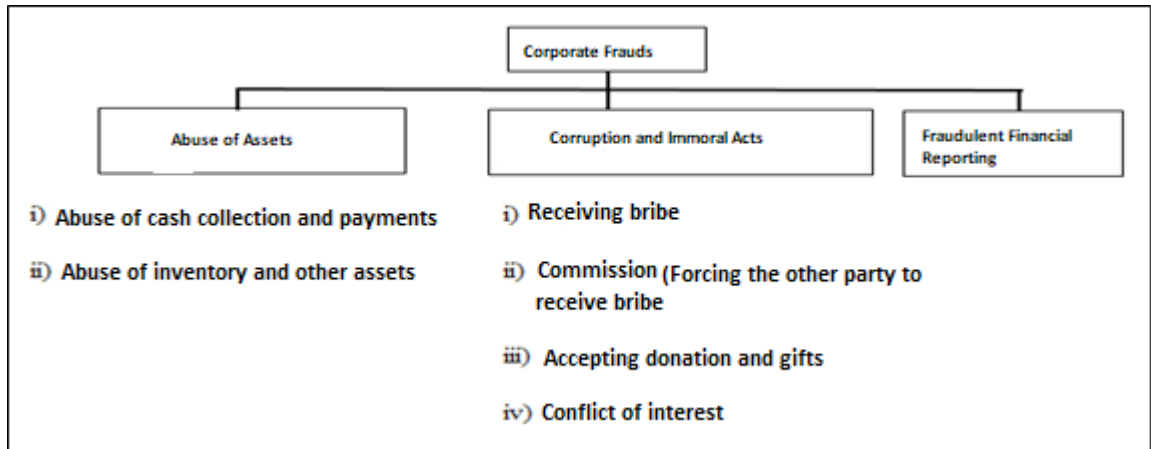
to sell his/her products/services to that company or institution. Especially the frauds in defense and other public tenders in the public institutions can be shown as examples to this type of fraud.

The client frauds are those performed by the clients against the companies, from which they bought goods or services. Such frauds can be performed solely by the client or in cooperation with an employee of the company. Theft, product return, and infringing the provisions of a contract are some of these frauds (Şen, 2013: 23-24). There also are other examples such as clients paying less than they must, asserting claims about the goods delivered shortly or imperfectly, buying goods and/or services at lower prices, and receiving the goods/services before paying the price. The frauds not fitting to any of first 5 classes and generally seen in healthcare, insurance, and banking industries are classified into the “other frauds” group.

5. CLASSIFYING THE FRAUDS BY THE FORM OF ACTION

ACFE gathered the corporate frauds into three groups by the form of action. This classification is named as *fraud tree* and known as intra-business frauds.

Figure 2: Classifying the Corporate Frauds



Source: Güneş, Ş. (2014), “İşletmelerde Hile Riskinin Önlenmesi ve Hastane İşletmelerinde Bir Uygulama”, p:13-14., and ACFE, 2006 Report To The Nation Occupational Fraud&Abuse

5.1. Abuse of Assets

It refers to stealing the assets of company or not effectively using them in parallel with the interest of company. The money stolen by the personnel, use of fixed assets for personal purposes, and selling the company assets at lower prices for purposes such as acquiring commission or etc. are some of the examples to the abuse of company assets (Şengür, 2010: 14). The abuse of assets by the personnel generally creates damage at small amounts. The assets may frequently be abused by the management. However, it should be noted that the amount of damage may be at very high levels because of the authority of management.

5.2. Corruption and Immoral Behaviors

It refers to the misuse of employee's authority in order to acquire personal benefit for himself/herself or another person by ignoring the rights of employer and/or any third party. The activities in this group cause the company to suffer economic loss, decrease the investors' trust, stop the growth, deteriorate the source allocation, and increase the bankruptcy risk of company (Özeroğlu 2014: 185)

The corruption and immoral behaviors can be explained as receiving bribe, forcing somebody to receive bribe, accepting gifts, and conflict of interests. The conflict of interest refers to the personal interests of employees preventing them from fulfilling their responsibilities in favor of the company, in which they work. However, this differs from receiving commission or bribe. Some of the examples are to receive the goods, which have been bought from a company in which the employee or executive or their relatives have share, in short or imperfect condition, purchasing at prices higher than normal, or selling goods at prices lower than normal. Thus, it can be said that the employee damages the company in parallel with his/her own interest.

5.3. Fraudulent Financial Reporting

The accounting frauds referring to the irregularity, illegal transactions, and disorder in the accounts and financial reports are accepted as a sub-category of occupational frauds and they are named *financial reporting frauds*.

The fraudulent financial reporting refers to the preparation of financial tables on the contrary to reality and in the way misleading the relevant actors (Şengür, 2010: 40). In other words, it refers to intentional absence or deficiency of information and amounts required in financial tables in parallel with the aim of misleading the users of financial tables. Thus, the top management may show the situation to be worse than real in order to pay less tax or better than real in order to increase the value of company.

The fraudulent financial tables may cause high amounts of economic losses. The fraudulent transactions are made by not only 1 person but many persons. When compared to the other types of fraud, this type affects a larger portion of society (Coenen, 2008: 96). Hence, the financial tables providing wrong and misleading information negatively affects the economic development and damage the investors. The investors need accurate and reliable information and they make their decisions based on these information. The accounting frauds jeopardize the efficiency of money and capital markets and consequently the economy. Moreover, the fraudulent financial reporting makes it impossible to make comparisons between the companies and this decreases the transparency, stops the effective functioning of capital markets, and decreases the growth rate of economy.

On the other hand, the fraudulent transactions are generally performed by the personnel working in accounting, operation, sales, top management, customer services, or purchase department. The most damaging ones among these frauds are those seen in banking, financial services, production, and governmental/public sectors.

The independent auditors generally focus on fraudulent financial reporting more than peculation of assets because the fraudulent financial reporting aims deceiving the users of financial table. However, the peculation also causes severe damages in financial tables but it is not aimed to falsify the financial table users. On the other hand, the cost of fraudulent financial reporting is severer than the peculation (Varıcı, 2012: 127).

5.3.1. Reasons for Fraudulent Financial Reporting

The fraudulent financial reporting is generally performed in order to show the financial situation better than in real and to deceive the financial table users. The methods that are frequently used are to report the assets more than in real by increasing the profit. In other words, the profit reported in financial reports –because it plays important role in determining the market value of company – is distorted.

The reasons leading the top management to the fraudulent financial reporting are (Küçük, 2009: 20):

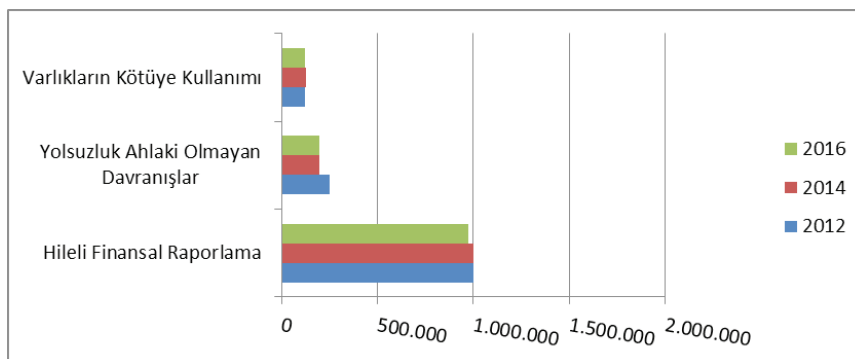
- To acquire personal interest from these regulations such as receiving bonus because of the increase in company's revenue,
- The executives have the opportunity of accounting frauds because they are at the management position,
- Because they believe that they would not be caught because of their fraudulent activities (weak internal auditing structure and insufficient auditing mechanism),
- Presence of excessive competition and the pressure on them because of this competition,
- Meeting the investors' expectations by increasing the market value of company.

The investors need the financial reports, which the companies provide, at most. The investors use the information, which they obtain from these reports, in increasing their income. Thus, the increase in earnings of investors has positive effect on the increase in wealth of society. For this reason, any fraud in financial reports damages not only the investors but also the society (Demir and Bahadır, 2007: 7).

5.3.2. Results of Fraudulent Financial Reporting

Given the studies carried out by ACFE in 2012, 2014, and 2016 and the reports published at the end of these studies, it can be seen that the frequencies of corporate frauds are similar to each other but the amount of damage is the main topic. From this aspect, it can be seen that the damage arising from the fraudulent financial reporting is very high. The result of this assessment is presented in Figure 3.

Figure1: Comparison between Mean Damage of Fraudulent Financial Reporting (\$) to the Mean Damage of Other Corporate Fraud Types (\$)



Source: ACFE, 2016 Report To The Nation Occupational Fraud&Abuse

ACFE publishes the data on corporate frauds, which are used by the experts, auditors, and academicians, on a regular basis. Hence, some of the important findings in ACFE's fraud reports in years 2014 and 2016 are as follows:

- Companies lose approx. 5% of their annual revenues because of the frauds. Given the amount of production in whole world, this means economic loss of 3.7 Trillion USD.
- The period of revealing the detected frauds is approx. 18 months and, according to the results of investigations, the average loss of companies because of fraudulent transactions is 150,000 USD.
- Approx. 30% of fraudulent transactions arise from the lack of internal auditing.
- Bridging the losses arising from the frauds either takes long time or it is not possible. 58% of the companies suffering economic loss because of fraud cannot collect the reimbursement, and only 14% of the reimbursement can be collected. Only 8.4% of fraud events reported have been punished.
- The sectors, which suffer fraud at most, are the banking, financial services, production, and government sectors.
- The small companies face with proportionally larger frauds and specific types of fraud are more frequently seen.
- 77% of these frauds are found in accounting, operation, sales, management, customer relations, purchasing, and finance departments.
- As the authorization level of defrauder increases, the amount of damage originating from the fraud also increases. The corporate frauds made by the company owners constitute 19% of total, and they cause approx. 500,000 \$ to the victim. The personnel frauds constitute 42% of total and they cause approx. 75,000 USD damage. Management frauds constitute 36% and the average damage is 130,000 \$.
- The secret agreements make it easier for the employees to overcome the fraud control and increase the amount of loss. The mean loss in frauds made by only 1 person is 80,000\$, which increases to 200,000\$ in case of two defrauders, 355,000 \$ in case of three defrauders, and reaches at 500,000\$ in case of more defrauders.

The negative consequences of frauds can be summarized as follows (Kandemir 2010: 15).

- The frauds deteriorate the accuracy, reliability, quality, and transparency of financial tables.
- They affect the objectivity and neutrality of auditing companies and independent auditors.
- They decrease the trust of financial table users in capital markets.
- The inaccurate, misleading, and subjective financial tables increase the "information risk" and it decreases the efficiency of capital markets.
- Since the fraudulent financial reporting decreases the independence and neutrality of financial reports, it prevents the effective/efficient functioning of markets and decreases the growth rate of economy.
- It causes the court costs to reach at high amounts.
- The professional lives of defrauder employees come to an end.
- They cause the bankruptcy of companies, which have been exposed to fraud, or cause large economic losses.
- They do not allow the company, which takes part in fraud, to continue its operation.
- They cause the society to have a different point of view to the accounting and auditing professions.

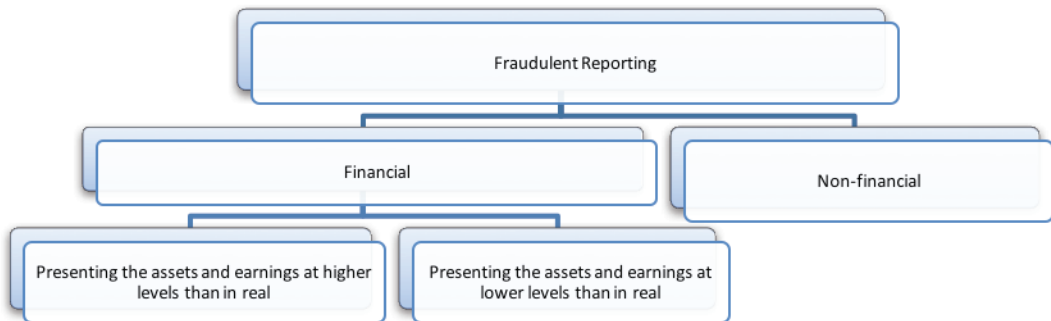
6. Methods of Fraudulent Financial Reporting

From a general perspective, the fraudulent financial reporting refers to “intentionally not including the necessary amounts in the financial tables and/or including the amounts, which should never be in these reports, in order to defraud the users of financial tables”. These actions are generally taken by the top management. The objective here is to defraud the financial table users. The American Institution of Certified Public Auditors (AICPA) published a standard on the fraud (SAS) and, in 6th paragraph of SAS No.99, the methods of fraudulent financial reporting are listed.

- Destroying, falsifying or distorting the important documents that are necessary for the financial tables
- Misreflection or non-reflection of financial transactions, events, and other important information in the way causing severe falsification in financial tables
- Intentionally infringing the processes about accounting principles, recording, classification, presentation or explaining.

These reveal how the fraudulent financial information is performed. Based on the studies carried out by itself, ACFE classified the methods used for fraudulent financial reporting as follows.

Figure2. Fraudulent financial reporting methods



Source: ACFE, 2008 Report To The Nation Occupational Fraud & Abuse

6.1 Fraudulent Financial Reporting

It is related with the document recording and financial transactions influencing the financial reports of the company. “Reporting the assets and earnings at lower levels than in real”, which is one of the fraudulent financial reporting types, is theoretically possible but they are not frequently observed in the real life and they are generally performed by the small companies. For this reason, the present paper focuses more on “**reporting the assets and earnings at higher levels than in real**”. Such frauds can be examined under four categories.

- *Imaginary earnings,*
- *Fraudulent financial reporting about liabilities and expenses,*
- *Fraudulent financial reporting about assets,*
- *Insufficient or no explanatory notes,*

6.1.1. Fraudulent Financial Reporting about Imaginary Earnings

The imaginary earnings/revenues refer to recording the sale of goods and/or services, which has not occurred, as if it is a completed transaction. This is on the contrary to the “Revenue Earned” principle of income statement. Hence, in the aforementioned principle, it is stated that the unearned income and profits shall never be included in income statement and the earned revenues and profits shall not be presented to be lower or higher than in real” (Sevilengül, 2014: 25). The imaginary sale transactions can be made over the imaginary persons, and they can be made over a customer of company as well. The imaginary revenue may occur when an invoice is issued as if a sale has been made to a client of the company but the service or good is not delivered in reality. At this point, the person realizing the imaginary revenue recording acts on the contrary to the concept of objectivity and documentation among the accounting principles. The changes in assets and sources of a company and the measurement of these changes by making use of revenues, expenses, and equities must be based on the objective documents.

The frauds related with revenues are common because of two reasons. First, there are alternative ways of defining the revenue and each of the alternatives is explainable. Each of the company’s revenues differs, cannot be understood, and requires a reporting format differing from the normal format. The revenue definitions in activities taking long time because of the nature of business (such as construction companies) may differ from the activities taking less time. In most cases, it is very difficult to determine when the revenue occurred. The other reason for frequency of revenue frauds is that the net revenue is manipulated by making use of income statement and accounts receivables. The main principle here is that the revenue must be equal to the amount of sales (Terzi, 2012: 66).

When an imaginary invoice is issued to the name of a client, that client is general unaware of that invoice and the products are not physically delivered to the client but the transportation documents are prepared as if they are shown to be delivered. The most important problem here is the non-agreement in the receivable account of that client. The company needs to make use of various fraudulent transactions in order to hide that non-agreement. At this point, the company may make non-real sales discounts in order to correct the credit balance (Şengür 2010: 52).

Transferring the product without any order and agreement and accruing the sales revenue at the date of transfer is actually an imaginary revenue practice. There may be an order, which is expected from a previous client, and the company may transfer the products and record the revenue before the placement of order. Receiving the order after the products have been sent means early recording of revenue (Mulford and Comiskey, 2002: 161).

TMS 18: According to the Standard on Revenue, all the following conditions shall be met in order for the sales revenue to be accepted accrued and to be recognized (TMS 18 Art.14).

- Transfer of important risks and returns of the products to the buyer,
- End of control and administrative authority on the products,
- Measuring the revenue reliably,
- Possibility of acquiring economic benefit,
- Reliably measuring the cost, which has been or will possibly be borne,

In companies aiming to meet the expectations of investors by making use of period income and having no sufficient accounting auditing, the sales revenues are recognized before the sales transaction.

Another fraud method, which is within the unreal revenue group, is the “conditional sales”. Here, the sale is recorded at the time of receiving the order but before the delivery to the client. In conditional sales, the ownership rights and risks are not transferred to the client. Such sales shall never be recorded as revenue. However, since the fraudulent records are made, the sales revenues of company are artificially increased. The conditional sales yield the same result with fraudulent recording to the wrong period. The sales conditions are met completely and the revenue accrual becomes in compliance with the accounting principles related with revenue accrual in the next periods (Kandemir, 2010: 61).

The risks in imaginary revenue are as follows (Tarhan Mengi, 2013: 147).

- When compared to the other companies in the same sector, the companies preparing fraudulent financial reports seem to grow faster and have extraordinarily high profitability.
- When the companies determine their revenues and increases in these revenues, the operational cash flows are continuously negative or the company cannot managed to have positive cash flow,
- Making transactions, which differ from the general practices, with the relevant parties audited by an independent auditor or not audited or with the foundations having special purposes,
- The presence of extraordinary or very complex transactions that will require very hard questions about the “substance for form” at the end of period,
- Extraordinary increase in average collection period,
- Significant amount of sales to the companies, about the presence or assets of which there is no information,
- Creation of an unusual fluctuation with sales of headquarters or few people in the enterprise.

6.1.2. Fraudulent Financial Reporting about Liabilities and Expenses

The main objective in these frauds is to underreport the liabilities and thus to present equities of company to be better than in real. Underreporting the expenses may arise from the under, wrong, or no calculation of depreciation expenses or non-calculation of rediscount for the revenues prolonging to the next period(s). This contradicts with the “periodicity” concept of accounting. The accrual basis of periodicity concept requires the revenue, income, and profits to be compared with the costs, expenses, and losses for the same period.

The fraudulent financial reports related with the liabilities and expenses are prepared with following methods (Tarhan Mengi, 2013: 89);

- Capitalizing the operational expenses,
- Changing the accounting policies and deferring current period’s expenses to the next period,
- Not recording the decrement in the value of worthless assets or removing these assets from the records,
- Decreasing the provisions for liabilities.

6.1.3. Fraudulent Financial Reporting about Assets

The assets can be shown to be better than in real by making use of various methods. In this type of fraud, the profits and equities are shown to be at higher levels in reality by making use of manipulations in the values of assets

(generally the receivables, inventory, and real assets) are reported by capitalizing the expenses, and manipulations in valuation accounts (provisions for doubtful receivables, redemption, depreciation allowances, etc.). For instance, the income statement was prepared to be seen better than in real by capitalizing the phone lines, which have been bought by making use of leasing method, as an expense rather than recognizing them. Another important type of frauds related with assets is about the valuation of assets. The losses in the values of assets decrease the profit of company. For this reason, the companies may tend towards fraudulent transactions (Terzi, 2012: 79). The fraudulent transactions made in this category are listed below.

6.1.3.1. Overreporting the Cash and Securities

The cash money kept in the safe or bank account of company and the assets that can be converted into cash without losing from their values constitute the liquid assets of the companies. Since the amount of liquid assets can be easily confirmed from the banks, it is very difficult to overreport in this category. The most frequently seen fraud and irregularity in the liquid assets is the cash money stolen by the employees. When reaching at high values, the amount of stolen money causes the financial report to be declared in a misleading manner.

The tradable assets such as shares, bonds, treasury bonds, and funding bonds that the company possesses for a short term constitute the securities. The main criterion in valuation of the securities is the purpose of possession. The securities are classified as those possessed for trading, those possessed until the due date, and the ready-to-sale securities. The securities possessed for trading and the ready-to-sale securities are valued at the real values. The gains from appreciation and impairment losses arising from the securities possessed for trading purpose are recorded as revenue or loss in the relevant period. The gains from appreciation and impairment losses arising from the ready-to-sale securities are recognized in “other revenues” until the relevant securities are derecognized. On the date of selling the relevant financial asset, the profit or loss is recorded to the revenue accounts. Considering the years when the value of securities increased, the increase in the value of ready-to-sale securities is related to the income statement of the year when the securities are sold, whereas the increase in the value of securities possessed for trading purpose at the end of period affects the income statement at the end of year. In both cases, the total amounts of appreciation to be reported in income statement are the same but the appreciation in the securities possessed for trading purpose is reported in the income statement by dividing into the years. The company executives generally prefer classifying the securities as “ready-to-sale securities” because which year’s income statement would be affected from the appreciation or decrement depends on the management’s decision about selling the securities. In the year, when the operational profit is low, the management may decide to sell the appreciated securities and to report higher profit in the income statement of that year (Şengür, 2010: 69).

6.1.3.2. Overreporting the Trade Receivables

The trade receivables include the bonded and non-bonded debts arising from the company’s good and service sales. The frauds about trade receivables are performed in two ways; unreal trade receivables and not making provision for the trade receivables. First, the unreal trade receivables and overreporting the sales revenues or trade receivables of the period by creating imaginary clients are common among the companies having financial problems or the companies, executives of which receive sales-based commission. Since the trade receivables will be collected on the due date, these transactions buy the defrauders extra time. The parties preferring this method attempt to hide the unreal accounts by providing the independent auditors with forged documents that they have created (Wells,

2008: 319). Second, the collection of some receivables may become doubtful because of the situation of debtor or the conflicts between the companies about the amount of receivable. According to the precautionary principle, the companies must make provision for the doubtful receivables at the value on the date of balance sheet. A company aiming to show period profit to be higher than in real may act on the contrary to the precautionary principle and it may avoid making provision for such a receivable because of the negative effect on the profit of period (Arslan, 2018: 27).

6.1.3.3. Fraudulent Financial Reporting via Inventory

The inventories are defined as the raw materials and supplies that are possessed for selling in the normal course of business, produced for selling, being in production process or in service delivery. They are valued at cost or net realizable value (which is lower). The net realizable value refers to the net amount, which the company expects to have when it will sell the inventories within the normal course of business, and it is a company-specific value. The cost of inventories includes all the purchasing costs and conversion costs related with those inventories, and all the other costs borne in order to turn them into their current status. In companies providing service, the cost of inventory include the labor costs of personnel (including those carrying out the control operations) directly playing role in providing the service, as well as the other costs and the general costs that may be in relationship with them (Tarhan Mengi, 2013: 97). The most frequently seen stock frauds are as follows.

- The products invoiced to a client but yet held in inventory in the name of client,
- Reporting the products, which are on the delivery process and ownership and risk of which have not been transferred to the client, in the inventory,
- Reporting the consignment goods, which belong to others, in the inventory,
- Not making provision for decrease in value of inventory,
- Falsifying the amount of inventory (imaginary inventory),
- Dividing the inventory costs to the years, not subtracting the sale returns and discounts
- from the sales revenues and recognizing them as sales.

6.1.3.4. Fraudulent Financial Reporting about Tangible Fixed Assets

The tangible fixed assets are the physical assets possessed for using in good and service production or delivery, renting to others, or using for administrative purposes and predicted to be used by the company for longer than 1 operating cycle. In order for the cost of a tangible fixed asset to be reflected to the financial reports, it must be possible to transfer the future economic benefits related with this item to the company, as well as reliably measuring the cost of that item. The tangible fixed assets are recorded with their costs. The fraudulent transactions in this group can be listed as follows;

- a) Reporting some of the assets, which have the nature of fixed asset, in the current assets in order to show the current assets to be higher than in real. This affects the current ratio and supports the processes such as approval or credits or other borrowing procedures (ACFE, 2013: 16).
- b) Recognizing a non-real asset, recording at higher values than the historic cost, and capitalizing the funding costs of periods after the operationalization (Golden et al. 2006: 226).

- c) Selecting and changing an appropriate depreciation method for the earnings policy of company, intentionally not amortizing, and manipulating the scrap value estimation for future years in order to decrease the depreciation costs (Şengür, 2010: 68).
- d) Showing the costs to be higher for the values, which are in production process in the company and which will gain the character of tangible fixed asset when completed, and overreporting this item in financial reports.
- e) Overreporting the asset values companies in merger and acquisition processes by making use of goodwill, as well as using the market value rather than recorded values.

6.1.4. Insufficient or No Explanatory Notes

According to the accounting principles, the financial reports should be clear and understandable in order for the persons and institutions, which will use these reports, to be able to usefully benefit from them in making accurate decisions. Besides the clearness of information provided in financial reports, it is also required to explain the events, which have not included in the financial reports but will possibly occur. Moreover, the reported information shall not be misleading. The common frauds and irregularities related with the explanations in financial reports are as follows.

- a) Not explaining the events, which will occur after the date of balance sheet but will affect the decisions of financial information users,
- b) Not reporting the conditional liabilities referring to the possible liabilities that may occur depending on the occurrence of a specific event in the future,
- c) Not sufficiently explaining the transactions taken together with relevant parties,
- d) Not reporting the changes in accounting policies, which may affect the decisions of financial information users

6.2. Non-Financial Fraudulent Reporting

The non-financial fraudulent reporting refers to the intentional faults in reports, documents and transactions, which have no effect on the financial reports of company, and defrauding the third parties. The non-financial fraudulent reporting includes providing misleading information about the experience of employees (especially by making use of occupational certificates), intentionally preparing the reports and documents, which are prepared for internal reporting and external reporting purposes, in the way misleading the users (Şengür 2010: 49). The non-financial fraudulent reporting is seen very rarely in literature.

References

- Arslan, Ö. (2018), Muhasebe Hilelerinin Tespitinde İç Denetim Sisteminin Önemi Ve Denetim Standartları Açısından Bağımsız Denetçinin Hileye Karşı Sorumluluğu: Bağımsız Denetim Şirketlerinde Bir Araştırma, Cumhuriyet Üniv., SBE, Doktora Tezi.
- Bayraklı, H.; Erkan, Mehmet.; Elitaş, C. (2012), “Muhasebe Ve Vergi Denetiminde Muhasebe Hata Ve Hileleri”, Ekin Basın Yayın Dağıtım
- Bayraktar, A. (2007), Türkiye’de Muhasebe Hileleri Tarihi, TÜ, SBE, YL Tezi

- Coenen, T.(2008), Essentials Of Corporate Fraud, John Willey&Sons, Ins.,New York.
- Çıtak, N.(2007), “Hileli Mali Raporlamada Yaratıcı Muhasebe ve Bir Uygulama”, İstanbul Üniversitesi SBE, Doktora Tezi, İstanbul.
- Demir, V. Bahadır, O.(2007), “Muhasebe Manipülasyonu-Yöntemler ve Teknikler”, Mali Çözüm Dergisi, İSM- MMO Yayınları, Yıl:17, Sayı:84 Kasım-Aralık.
- Dumanoğlu, S. (2005), “Hata ve Hile Ayrımı: Hile Denetimi”, Marmara Üniv. İİBF Dergisi, XX/1
- Ertürk, A. (2010), “İşletmelerde Hata ve Hileyi Önlemede İç kontrol Sisteminin Etkinliği ve Bir Uygulama”, Marmara Üniv. SBE, YL Tezi, İstanbul.
- Golden, T. W., Steven L. S, Mona M. C, (2006), A Guide To Forensic Accounting Investigation, John Wiley&Sons, Newyork, USA.
- Güneş, Ş,(2014), İşletmelerde Hile Riskinin Önlenmesi ve Hastane İşletmelerinde Uygulama, Okan Üniversitesi, SBE, YL Tezi, İstanbul.
- Hacı Hasanoglu, T. and Karaca, N. (2015), Potansiyel Muhasebe Meslek Mensuplarının Hile Algısı Üzerine Bozok Üniversitesin 'de Bir Araştırma, Niğde Üniv. İİBF Dergisi, Cilt:8/1
- Jafarova, S. (2009), “İşletmelerde Hile Yapmanın Nedenleri ve Sosyal Psikoloji Açısından Değerlendirilmesi”, Marmara Üniv. SBE, YL Tezi, İstanbul.
- Kandemir, C.(2010), Muhasebe Hilelerinin Ortaya Çıkarılmasında ve Önlenmesinde Bağımsız Denetimin Rolü ve Bağımsız Denetçinin Sorumluluğu, ÇÜ, SBE, Dokt. Tezi,
- Küçük, İ. (2008), “Finansal Raporlamada Hile- Manipülasyonlar ve Önlenmesi”, İÜ SBE, Doktora Tezi, İstanbul.
- Küçük E. ve Uzun S, (2009), “Hileli Finansal Raporlamanın Oluşumu ve Doğurduğu Sonuçlar”, Erciyes Üniversitesi, İİBF Dergisi, Sayı:32
- Mengi, B. T. (2013), “Hileli Finansal Raporlama” Beta Yayıncılık
- Mengi, B. T., Türkmen, S. Y. (2013), Yatırım Hileleri, Öneri Dergisi, C/S:10/39
- Mulford, C.W.,Eugene E.C.(2002),The Financial Numbers Game, Canada, John Wiley&Sons
- Özeroğlu, A. İ. (2014), “Finansal Aldatmaca ve İşletme Hileleri”, The Journal of Academic Social Science”, Yıl:2, 2(2)
- Skosen, C. J. (2004), “An Empirical Investigation Of the Relevance And Predictive Ability Of The SAS 99 Fraud Risk Factors”, Doctor Of Philosoph, Oktahoma State University.
- Şen, Ç.(2013), “İşletmelerde Çalışan Hilelerinin Tespiti, Ortaya Çıkarılması ve Önlenmesi”, İstanbul Aydın Üniv. SBE, YL Tezi, İstanbul.
- Şengür, E. D. (2010), “İşletmelerde Hile, Hilelerin Önlenmesi, Hileli Finansal Raporlama İlgili Düzenlemeler ve Bir Araştırma”, İstanbul Üniv. SBE, Doktora Tezi.
- Terzi, S. (2012), “Hileli Finansal Raporlama Önleme ve Tespit, İMKB İmalat Sanayinde Bir Araştırma”, Beta Yayıncılık.

Varıcı, İ. (2012), Hileli Finansal Raporlama Açısından Denetçinin Raporlarının İncelenmesi, Gümüşhane Üniversitesi, SBE Dergisi Sayı:5

Wells, J. T.(2008), Principles of Fraud Examination, John Wiley&Sons, NewYork.

Association Of Certified Fraud Examiners (ACFE), <http://www.acfe.com>

ACFE, 2008 Report To the Nation An Occupational Fraud&Abuse

AFCE, 2010 Report To The Nations On Occupational Fraud And Abuse.

ACFE, 2012 Report to the Nation on Occupational Fraud and Abuse,

ACFE, 2016 Report To The Nation Occupational Fraud&Abuse

AICPA, SAS99 Consideration of Fraud in a Financial Statement Audit, <http://www.aicpa.org>,

Türk Dil Kurumu (TDK), www.tdk.gov.tr

TMS 16 “Maddi duran varlıklar, <http://kgk.gov.tr>

TMS10 “Raporlama Döneminden Sonraki Olaylar” <http://kgk.gov.tr>

TMS18 Hasılat, <http://kgk.gov.tr>

3

ACCOUNTING MANIPULATION

Dr. Öznur Arslan¹

1.1. Accounting Manipulation

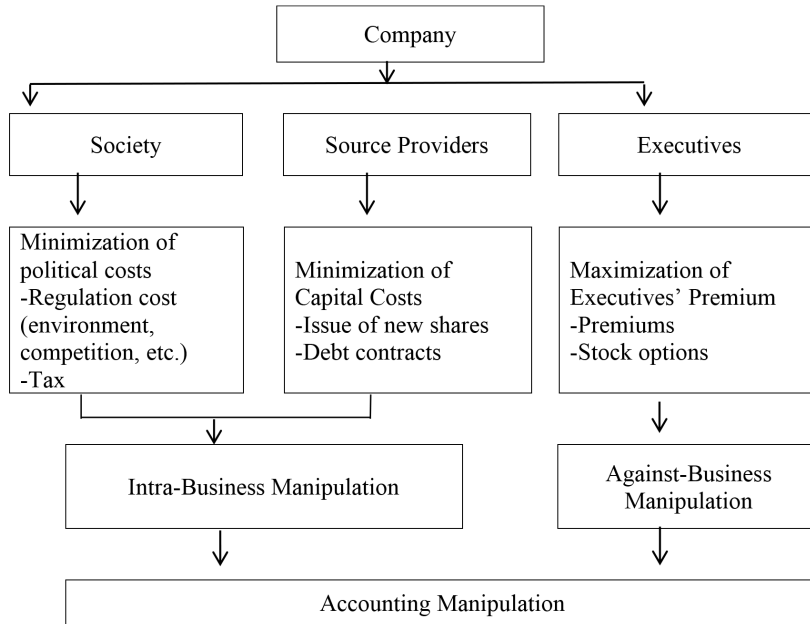
The word “manipulation”, which has French origin, has 3 meanings in General Turkish Dictionary of Turkish Language Institution. According to this dictionary, the word “manipulation” has the meanings of “directing” (verb), “changing the information by selecting, adding, and excluding” (verb), and “using the assets in constructive, explanatory, and useful manner” (economic term) (Killı and Evcı, 2017:69). In the literature of law, the same term has the meaning of “game, trick, fallacy, illusionism”(Yılmaz, 1996:18). As a concept, this word is defined as “affecting the market by making artificial transaction” from the aspect of capital market law (Yıldırım,1990:39). The accounting manipulation, on the other hand, is defined as “company executives’ intentional misstatement about the financial information in order to make the financial performance of a company look positive” (Trussel, 2003: 616).

According to another definition, from the aspect of the company, the accounting manipulation is the use of flexibility of generally accepted accounting principles related with the reporting or the alterations made in the financial information in order to falsify the financial situation and the results of activities on the contrary with the current standards (Küçüksözen and Küçükkocaoğlu, 2004: 4).

By making use of the accounting manipulation, the executives design the transactions that may affect the welfare transfer between company and society, company and source providers, or company and company’s executives. In these relationships, the company derives benefit from the welfare transfer between company and society and the transfer between company and source providers, whereas the welfare transfer between company and company executives is to the detriment of executives. From this aspect, the main objective of the accounting manipulation in a company acting together with its executives is to show the business performance and financial structure differently from the reality, which it should be, and to have welfare transfer from the actors nearby the company to the company. The welfare transfer occurring after the accounting manipulation and the actors benefiting from this transfer are illustrated in Figure 1 (Tepeli and Kayıhan, 2016: 247):

¹ Sivas Cumhuriyet University

Figure 1. Welfare Transfer Occurring after the Accounting Manipulation



Source: HervéStolowy; GaetanBreton; "AccountsManipulation: A LiteratureReviewandProposedConceptual Framework", *Review of Accounting & Finance*; 2004; 3, 1, s.7

1.2. Objectives of Accounting Manipulation

Although the manipulation has definitions and methods, the most important objective of it is the desire of affecting the perception of or impression on the market participants about the risks that they may face. In parallel with this objective, the investors might be directed to buying more shares or new investors might be drawn to the company by positively changing their perceptions about the company and creating high-profit expectations. In accordance with the principle "The price of an asset increases as the demand on that asset increases", which is one of the classical rules of economics, an increase in share prices because of the increase in demand is obtained (Tepeli and Kayıhan, 2016:247).

There are also authors explaining the objectives and benefits of accounting manipulation as in Table 1.

Table 1: *Objectives and Benefits of Accounting Manipulation*

OBJECTIVES	BENEFITS
Influencing the share prices	Increasing the share prices - Low volatility in share prices - Increasing the market value of company - Decreasing the capital cost - Increasing the value of stock options
Reducing the borrowing costs	Improving the credibility of company - Increasing the level of debt - Reducing the borrowing costs - Obtaining more flexible conditions in credit contracts
Decreasing the political costs	Decreasing the regulations - Avoiding the higher taxes
Manipulating the executive premiums	- Obtaining higher premiums

Source: Charles W. Mulford; Eugene E. Comiskey; "The Financial Numbers Game: Detecting Creative Accounting Practices", John Wiley&Sons, Inc., New York, 2002, s.5

The objectives and benefits of accounting manipulation listed in Table 1 can be discussed as follows:

Influencing the share prices: The investors tend to pay more for the shares of companies, which that pay dividend and have the high and continuous earning capacity. Paying dividend enables the companies to create an expectation that the company's shares will provide capital gain (purchasing-selling revenue), and to ensure the investment on the company and the increase in share prices. The increase in value of shares both increases the market value of company and decreases the capital costs. From the aspect of executives, high value of shares means high premium income. For this reason, some companies make manipulations in financial tables in order to ensure the increase in the share prices, and they give the investors the impression that the company has the high earning capacity (Mulford and Comiskey, 2002, 5). The companies, which have been reported to have made accounting manipulation between 1992 and 1999 in the Wall Street Journal newspaper, were examined and it was revealed that the vast majority of them attempted to make accounting manipulation order to achieve the profit estimations of analysts and to influence the share prices (Cox and Weirich, 2002: 374)

Decreasing the borrowing cost: From the aspect of borrowing costs, the consistent earning capacity degrades the risk perception of parties, which will give loan to the company, and it decreases the capital costs. On the other hand, since the new debt contracts are made generally based on the accounting profit or ratios, the manipulation of profit is also important for having new debt contracts. The previous studies showed that the breach of debt contracts generally arises from the accounting manipulations before the relevant year (Wilson and Shailer, 2007:255).

It can be seen that the companies frequently make use of accounting manipulation in order to meet the criteria specified in debt contracts (Sweeney, 1994: 281). There are studies reporting that the companies declaring bankruptcy had generally made accounting manipulations in years before the bankruptcy (Defond and Jiambalvo, 1994:29)

Decreasing the political costs: The highly-profitable companies try to report lower profits in order to minimize the pressure of legal regulations. The oil embargo of OPEC in 1970 had the oil companies in USA to increase the prices and to gain higher profits. In order to decrease the constantly increases oil prices, the USA Congress placed a new tax on the earnings of oil companies. However, many companies reported lower profits by delaying the incomes or increasing the costs, and they managed to decrease the negative effects of tax (Demir and Bahadır, 2007:6).

During the period when US Trade Commission carried out an investigation, it was investigated if the companies in the USA showed their profits lower than in reality in order to benefit from the customs immunity such as an increase in customs duties or limitation of quotas. At the end of the research, it was determined that, during the periods of an investigation by US Trade Commission, the company executives decreased the pre-tax profits by making use of accounting manipulation via using the discretionary savings² (Jones, 1991:193-194).

Manipulating the executive premiums: Another objective of the manipulation made by executives is to manipulate the share-based premium payments implemented by the company. Such premium payments are performed by offering the executives an option to buy a share at lower prices or to have share instead of premium payment. The main objective of this system is to have the executives to make more effort for increasing the value of the company in order to increase their personal income. However, these premium agreements made with the executives may turn into a motivation factor for the accounting manipulation (Crocker and Slemrod, 2007, 699).

The hypothesis that the executives rewarded with the premium made the accounting manipulation in order to increase their incentive bonus payments by making use of total accruals³ in order to increase the incentive payment to be paid to them was developed and then tested. In conclusion, it was found that the company executive has always made use of accounting manipulation in every period in order to maximize their benefit within the scope of regulation taken as a base for specified incentive payment (Healy, 1985:86-107).

1.3. Accounting Manipulation Methods

The accounting manipulation practices incorporate nonunilaterality; there are accounting manipulation methods that can be evaluated from various aspects. Not the amount of profit but also the amount of loss may be addressed. The widely used accounting manipulation methods are as follows.

➤ **Earnings Management:** It is almost impossible to standardize the importance criteria of information users or decision-makers. The earnings management is to intentionally declare wrongfully or to not declare the accounting data and information that may influence or change the decisions of these persons (Elitaş, 2013:

2 The discretionary accruals may be defined as the accruals occurring as a result of the decision of executives. Moreover, the discretionary accruals may be named as "the abnormal portion of the accruals". The provision for doubtful receivables, worthless receivables, provisions no longer required, reorganization expenses, effects of the changes in accounting estimations, profit/loss from the sales of assets, capitalized expenses, accrued expenses, deferred revenues, and accrued revenues can be shown as examples to the discretionary accruals (Bartov, Givoly and Hayn, 2002:195-196).

3 Total accruals: It is the difference between companies' pre-tax profit and operational cash-flow amount. Total accrual is shown as the most important domain, in which the company executives use their discretionary power.

48). The earnings management is the intentional and decisive intervene of executives in the external financial reporting process in order to achieve personal goals. From another aspect, the earnings management consists of the management decisions related with any sort of activity and accounting records by changing the financial reports in order to influence the results related with contract and to falsify certain shareholders (Yörük and Doğan, 2009: 70).

- **Income Smoothing:** Stability is an important concept in almost any business. The stability refers to the system and thus the trust. In other words, it is to work in an order and within a plan. The excessive fluctuation in profit amount may lead the information users to the hesitation and distrust. Thus, the company gaining regular and continuous income would be higher than that of other companies. The income smoothing is one of the earnings management practices and it consists of the practices aiming to increase the income when it is low and to decrease the income when it is high in order to ensure stable profit distribution and to give the investors the impression of less risky company (Dalğar and Pekin, 2011:31).
- **Creative Accounting Practices:** The creative accounting practices consist of all the transactions aiming to show the financial status differently from the real situation such as changing the accounting records by making use of the gaps or flexibilities of legal regulations and by changing the information presented in financial tables (Saltoğlu, 2003:108). It was reported that the negative effects of creative accounting practices providing the companies with the fictive opportunities such as decreasing the funding costs and increasing the stock prices in the market played a significant role in the Enron Scandal, which was one of the most important scandals in its period (Saltoğlu, 2003:107-108).
- **Aggressive Accounting:** Aggressive accounting is the effort made for strongly and intentionally selecting and implementing the accounting principles in order to achieve the goals (Muford and Comiskey, 2002:3). Some of the aggressive accounting practices are to record the consignment sales and the amounts of sale of products, which have been billed but not transferred to the client, as sales revenue in order to report high profit in specific periods by pushing the limits of accounting, as well as delaying the expenses and costs, which are related with the company's transactions recorded as revenue, to the next period. Thus, here give the companies misleading and imperfect information to the financial table users (Küçüksözen and Küçükkocaoglu, 2004: 5).
- **Big Bath Accounting:** The big bath accounting practices are generally seen in the periods when the management of the companies change. By writing off some of the unproductive assets, the new management may make certain transactions and implementations in order to create the impression that the previous management caused more loss (more than the real) and the next period (their own management period) gain more profit (more than real) (Demir and Bahadır, 2007: 12).
- **Financial Fraud:** The fraud refers to the illegal activity of a party. The irregularity, disorder and illegal transactions in the accounts and financial reports refer to the accounting frauds. The term "accounting fraud" and the term "accounting failure" are generally confused with each other. The failures in accounting are the unintentional mistakes in the financial tables. They arise when an economic event or an amount or an explanation that must be recorded is not included in the financial tables. The failures arise from the inattention, professional illiteracy, and negligence but there is no intention. On the other hand, fraud refers to an action aiming to gain unlawful profit. For instance, while preparing the financial tables, issuing an invoice in order to show sales to be higher than real refers to the fraud but interpreting the consignment sales as the sales of the company can be seen as a failure.

1.4. Reasons for Accounting Manipulation

The main reasons for accounting manipulation can be listed as follows (Küçüksozen, 2005:67-68):

- Weak management structures of companies,
- Interest of executives and partnership structure of companies,
- Weak internal auditing system of the companies, ineffective independent auditing committees, or absence of independent auditing,
- Including no real-time but periodical information in the financial reporting process,
- Financial analysts and their estimations arising from the periodical financial reporting system, and their pressure on the management of the company,
- The terms realization, accrual, and allocation in accounting standards and the flexibilities that the accounting system (including the terms specified above) provides for the companies regarding the realization time, amount, and reporting of an event creating an economic consequence.

The financial data of 522 companies for the period 1987 and 1991 were analyzed and the evidences were found to prove that one of the main reasons for company executives to tend towards accounting manipulation is the pressure of meeting the expectations of company shareholders (Kasznik, 1999: 57)

1.5. Consequences of Accounting Manipulation

The accounting manipulation causes the real financial status and operational results of companies to not be accurately reported to the financial information users, the investors investing in the securities of these companies to sustain a loss, and the funds to be allocated to the wrong and unproductive domains because of the decisions made upon the misleading information. Thus, the most important consequences of the accounting manipulation are the prevention of the allocation of sources to the productive fields (Küçüksozen and Küçükkocaoglu, 2004:8).

Besides that, the other main results of accounting manipulation are listed below:

1.5.1. From the Aspect of Company and Investors

The accounting manipulation has also important consequences for the company and investors. The most important one among these results is the negative effect on the share prices of that company and the continuity of that negativity.

It was found that, on the day when the accounting manipulation has been announced to the public, the share prices decreased approx. by 9%, the difference between purchasing and selling quotations increased, and the number of analysts following the shares decreased, and this finding is interpreted in the way that the opinions of investors about the future performance of company and the credibility of company in public disclosure are influenced negatively and the value attributed to the company by the investors decreases (Dechow et al., 1996: 3-4).

Since the share prices decrease and the shares are not trades, the interest groups possessing the shares of the company and the shareholders and personnel of the company are affected directly from this and they suffer economic losses.

1.5.2. From the Aspect of Executives

The accounting manipulation practices' results in form of misleading financial reporting and then the announcement of these results to the public may cause the executives to lose their positions and reputation. The main responsibility in accounting manipulation practices belongs to the board members or company owners, who gave the order and know the possible results. For this reason, when it is revealed that the financial reports manipulated via accounting manipulation do not reflect the truth, the executives in charge may lose their job. Regardless of how good the relevant executives' previous performances are, this may remain blotting their copybook and it may also prevent them from finding a new job.

1.5.3. From the Aspect of Independent Auditors

If the independent auditors cannot reveal or if they connive at the accounting manipulations or if they overlook, then they may face with a result such as exclusion from the list published by the independent auditing companies, being imposed a fine, getting a prison sentence, or loss of reputation.

In general, there are four systematic errors in the nature of failures of auditing performed by the independent auditing companies. First of them is the misinterpretation or misapplication of Generally Accepted Auditing Standards by the auditor. The auditing error in the case of ZZZZ Best Company and Earnst&Whinney can be shown as an example of such failures. The second one is the intentional acts of the auditor and, as in case of ESM Securities and Alexander Grant, such transactions occur when the auditor bows to the pressure of client or when the auditor accepts a bribe. The third one is seen because of the direct or indirect interest-based relationship between auditor and client. The case of "Enron and Arthur Andersen" occurred because an auditor consulting its client behaved in a more flexible manner with the fear of losing a client. The fourth one occurs in case of a relationship, which passes beyond the normal relationship seen between auditor and client during an auditing activity. The failure in the case of "Amre and PricesWaterhouse" can be shown as an example of this type of failure (Senal, 2011: 84)

1.5.4. From the Aspect of the External Environment

Another group affected from the damages arising from the accounting manipulations such as earnings management of the company, earnings smoothing, big bath accounting, aggressive accounting, and accounting failures and irregularities is the external environment of the company. Furthermore, the compensating such losses and correcting them may take longer time.

From the aspect of the external environment, the most important cost of executives' manipulative transactions is that the external environment makes wrong decisions about the source allocation (Bayırlı, 2006:125).

2. ACCOUNTING MANIPULATION ESTIMATION MODELS

It is very difficult to detect the accounting manipulation, which has been made by the companies, by making use of the information provided in the financial tables declared to the public. The researchers, who cannot access financial information as the regulatory bodies can, tried to develop certain models and tests in order to detect if the companies manipulated the financial information. The models obtained as a result of these efforts are generally named after the persons developing them.

Healy's Model: In his study (1985), Healy hypothesized that the executives rewarded with the incentive bonus manipulate by making use of the total accruals in order to increase the amount of incentive bonus to be paid to them. The incentive payment is generally defined as a function of revenues. The companies set a level of revenue as a goal and, if the revenue remains below these goals, the executives cannot receive any incentive payment. However, if the goals are reached or exceeded, they are paid incentive payment at different percentages and forms as an additional income. Healy's (1985) main assumption was that the total of all the accounting manipulations, which the executives might make during the whole of their service period, would be "zero". In his study, Healy aims to detect the accounting manipulation by making use of the model explained below:

$$NDA_t = 1/n \sum_{t=1}^n \left[\left((TA_t) / A_{t-1} \right) \right]$$

$\llbracket NDA \rrbracket_t$: Non-discretionary accruals

$\llbracket TA \rrbracket_t$: Total accruals

A_{t-1} : Total assets of the previous year

n : Number of observations

This model is based on the assumption that the discretionary accruals of present year are a component of total accruals of the previous year. Within the scope of this model, the discretionary accruals are expected to be "zero". Any company having non-zero discretionary accrual is accepted to make earnings management; the companies having negative value are accepted to take actions increasing their profits, and those having positive values are accepted to take actions decreasing their profits (Aren, 2003: 34).

DeAngelo's Model: In his study, DeAngelo investigated that if the public companies implemented any manipulation while they are becoming closed companies by buying the publicly held shares back (Küçüksözen, 2004:256). DeAngelo (1986) established his model by equalizing the non-discretionary accruals⁴ of the previous period to the total assets of the year before that period. In this model, the non-discretionary accruals are calculated as follows:

$$\llbracket NDA \rrbracket_t = \llbracket TA \rrbracket_t / A_{t-1}$$

$\llbracket NDA \rrbracket_t$: Non-discretionary accruals

$\llbracket TA \rrbracket_t$: Total accruals

A_{t-1} : Total assets of the previous year

In this form, the model of DeAngelo can be accepted as a special version of Healy's model. The only difference is that the estimation of non-discretionary accruals is limited to the previous periods (Dechow et al., 1995: 198).

Jones' Model: In his study, in order to consider the differences in the operational level of the company, Jones (1991) assumed that the level of discretionary accruals is not constant, and then he graded the accrual differences according to the total assets. In other words, the author used the ratio of "total accruals/total assets of the previous year" as

⁴ Non-discretionary accruals can be defined also as "operational accruals" or "normal portion of accruals". (Bartov, Givoly and Hayn, 2002: 196).

constant. Moreover, in this model, the amount of tangible fixed assets is added to the independent variables in order to control the amplitude. In conclusion, the relationship between the growth of the company's operations and the discretionary accruals was taken into consideration (Tepeli and Kayıhan, 2016:252).

Based on these explanations, the formula of this model can be written as follows (Jones, 1991:213).

$$\begin{aligned} \text{[TA]}_t / A_{t-1} &= \alpha_1 [1/A_{t-1}] + \beta_1 [\Delta REV_t / A_{t-1}] + \beta_2 [PPE_t / A_{t-1}] \\ &+ \varepsilon_t \end{aligned}$$

[TA]_t = total accruals of company in year t

ΔREV_t = change between revenues of company in year t and in year t-1

PPE_t = gross machinery-equipment and facilities of company t in year t

A_{t-1} = total assets of company t in year t-1

ε_t = error term for company t in year t

In this model, the estimation error values computed as the difference between the values calculated by using Least Squares method and the real values refer to the discretionary accrual values for year t. A test statistics developed in order to determine if the estimation errors obtained as time series are statistically significant is used in testing the hypothesis that these values equal to 0. As a result of the investigation, it was determined that the company executives implemented manipulation in decreasing the profits by making use of discretionary accruals (Küçüksözen, 2004: 264).

Corrected Jones Model: In their study (1995), Dechow, Sloan, and Sweeney further improved the Jones' model. The reason for improving this model is that the Jones' Model fails in measuring the discretionary accruals and it overestimates the earnings. In Corrected Jones Model, however, the accruals are calculated throughout a period and the defects of the previous model are eliminated. The formula of Corrected Jones Model is as follows (Dechow et al., 1995:199):

$$\begin{aligned} \text{[TA]}_t / A_{t-1} &= \alpha_1 [1/A_{t-1}] + \beta_1 [(\Delta REV - \Delta REC)_t / A_{t-1}] \\ &+ \beta_2 [PPE_t / A_{t-1}] \end{aligned}$$

Where,

[TA]_t = total accruals

A_{t-1} = size of assets in previous year

ΔREV_t = change in the revenues

ΔREC_t = change in trade receivables

PPE_t = gross machinery, equipment, and facilities

In the Corrected Jones Model, the variable "trade receivables" is added to the model as a new variable.

Industry model: The industry model used by Dechow and Sloan (1991) is based on the assumption that the non-discretionary accruals do not change in any period. Since it is stated that any change in the total accruals arises from the discretionary accruals, it is similar to the model of Jones (1991). However, rather than directly modeling the non-discretionary accruals, this model emphasizes that the change in non-discretionary accruals would be the same in all the companies operating in the same industry. Besides the companies within the scope of analysis, this model takes the size of assets of the other companies in the same industry as a base and it uses the median values of calculated total accruals. Considering the sensitivity of each company in the industry, the accruals are tested in this model as follows (Dechow et al., 1995: 199);

$$NDA_t = Y_1 + Y_2 \text{) Median } (TA_t)$$

Median (TA_t) = the median value of total accruals measured for the assets of all the companies in the same industry but not taken into the sample.

The company-specific Y_1 and Y_2 values are estimated by applying the Least Squares Method on the observations in the estimation period.

Beneish Model: In 1997, Beneish established a dataset from the companies showing extraordinary performance and examined if they implemented creative accounting practices. In this model, together with 64 companies reported to implement different forms of manipulation by US Securities And Exchange Commission (SEC), also 1989 companies, about which there is no negative report or opinion, were included and various variables were determined. These variables were subjected to Probit analysis and the answer to the question if they implemented manipulation via creative accounting practices was sought. Moreover, a new variable was added into this model in order to distinguish the companies, which have been found to commit a manipulation by SEC, and it was enabled to interpret the model by assigning the value “1” to the manipulator companies and “0” to the companies that have not committed any manipulation (Küçüksozen, 2004:267). Within this scope, the Beneish Model is as follows (Beneish; 1999: 26) :

$$M_i = \beta_i \cdot X_i + \varepsilon_i$$

β_i = the coefficient calculated for each independent variable within the scope of the model

X_i = matrix consisting of explanatory variables

ε_i = error term

8 different independent explanatory variables used by Beneish in his model are calculated as follows (Tepeli and Kayıhan, 2016:254);

$$\begin{aligned} \text{Days Sales in Receivables Index (DSRI)} \\ &= (\text{Net Receivables}_t / \text{Sales}_t) \\ &/ (\text{Net Receivables}_{(t-1)} / \text{Sales}_{(t-1)}) \end{aligned}$$

$$\begin{aligned} \text{Gross Margin Index (GMI)} \\ &= ((\text{Sales}_{(t-1)} - \text{COGS}_{(t-1)}) / \text{Sales}_{(t-1)}) \\ &/ ((\text{Sales}_t - \text{COGS}_t) / \text{Sales}_{(t-1)}) \end{aligned}$$

Asset Quality Index (AQI)

$$= ((\text{『1 - Current Assets』}_t + \text{『PP\&E』}_t + \text{Securities}_t) / \text{『Total Assets』}_t) / ((\text{『1 - Current Assets Var』}_{(t-1)} + \text{『PP\&E』}_{(t-1)} \text{Securities}_{(t-1)}) / \text{『Total Assets』}_{(t-1)})$$

$$\text{Sales Growth Index (SGI)} = \text{『Sales』}_t / \text{『Sales』}_{(t-1)}$$

Depreciation Index (DEPI)

$$= ((\text{『Depreciation』}_{(t-1)} / (\text{『Depreciation』}_{(t-1)} + \text{『PP\&E』}_{(t-1)})) / (\text{『Depreciation』}_t / (\text{『Depreciation』}_t + \text{『PP\&E』}_t)))$$

Sales General and Administrative Expenses Index (SGAI)

$$= ((\text{『SG\&A Expense』}_t / \text{『Sales』}_t) / (\text{『SG\&A Expense』}_{(t-1)} / \text{『Sales』}_{(t-1)}))$$

Leverage Index (LVGI)

$$= ((\text{『(Current Liabilities)』}_t + \text{『Total Long Term Debts』}_t) / \text{『Total Assets』}_t) / ((\text{『(Current Liabilities)』}_{(t-1)} + \text{『Total Long Term Debts』}_{(t-1)}) / \text{『Total Assets』}_{(t-1)})$$

Total Accruals to Total Assets (TATA)

$$= (\text{『(Income from Continuing Operations)』}_t - \text{『Cash Flow From Operaitons』}_t) / \text{『Total Assets』}_t$$

In the Beneishmodel, the data of 8 variables for manipulator companies and those of non-manipulator companies were analyzed using Probitanalysis and the equation specified below was achieved (Beneish; 1999:29):

$$\begin{aligned} M_i = & -4,840 + (0.920 * DSRI) + (0.528 * GMI) + (0.404 * AQI) \\ & + (0.982 * SGI) + (0.115 * DEPI) + (-0.172 * SGA I) \\ & + (4.679 * TATA) + (-0.327 * LVGI) \end{aligned}$$

If the manipulation probability of M_i value according to normal distribution function is (Bekçi and Aşarlıgil, 2011: 141);

- Lower than 2.94%, then it is accepted that there is on finding indicating that the company might have implemented any financial information manipulation,
- Between 2.94% and 5.99%, then it is accepted that the company may have implemented financial information manipulation,
- Between 5.99% and 11.32%, then it is accepted that there are important findings indicating that the company might have implemented any financial information manipulation,
- Higher than 11.32%, then it is accepted that there are important findings indicating that the company has implemented financial information manipulation.

References

- Aren, S. (2003), “Yöneticilerin Kâr Yönetimi ile İlgili Tutumları ve İMKB’de Bir Uygulama”, T.C. Gebze Yüksek Teknoloji Üniversitesi Sosyal Bilimler Enstitüsü, İşletme Anabilim Dalı, Doktora Tezi, Gebze.
- Bartov, E.; Givoly, D.; Hayn, C. (2002), “The Rewardsto Meeting or Beating Earnings Expectations”, *Journal of Accounting and Economics*, No:33.
- Bekçi, İ.; Avşarlıgil, N.(2011), “Finansal Bilgi Manipülasyonu Yöntemlerinden Yaratıcı Muhasebe ve Bir Uygulama”, *Muhasebe Bilim Dünyası Dergisi*, Cilt:13, Sayı:2, 131-162.
- Beneish, M. D. (1999), *The Detecting Of Earnings Manipulation*, *Financial Analysts Journal*, Vol:55 No:5, 24-36.
- Beneish, M. D. (2001), “Earnings Management: A Perspective “, *Managerial Finance*, Vol:27, No:12,3-17.
- Cox, R.; Weirich, T.(2002), “The Stock Market Reaction to Fraudulent Financial Reporting,”*Managerial Auditing Journal*, Cilt:17, Sayı:7, 374-382.
- Crocker, K. J.; Slemrod, J. (2007), “The Economics of Earnings Manipulation and Managerial Compensation. *The Rand Journal of Economics*”, Vol:38, No:3, 698-713.
- Dalğar, H.; Pekin, S. (2011), “Kurumsal Yönetim İle Finansal Tablo Manipülasyonu Arasındaki İlişki: İMKB Kurumsal Yönetim Endeksinde Yer Alan Şirketlerde Bir Araştırma”, *Mali Çözüm Dergisi*, Sayı:107, 19-44 .
- Deangelo, H; Deangelo, L E.; Skinner, D. J. (1994), “Accounting Choice in Troubled Companies”,*Journal Of Accounting and economics*, Vol: 17, 113-143.
- Deangelo, L.E. (1986), “Accounting Numbers as Market Valuation Substitutes: A Study of Management Buy outs of Public Stock holders. *The Accounting Review*,” Vol:61, No:3, 400-420.
- Dechow, P. M.; Skinner, Daugles J. (2000), “Earnings Management: Reconciling the Views of Accounting Academics, Practitionersand Regulators”, *Accounting Horizons*, Vol:14, No:2, 235-250.
- Dechow, P. M.; Sloan, Richard. G.; Sweeney, Amy P. (1995), “Detecting Earnings Management”, *The Accounting Review*, Vol:70, No:2, 193-225.
- Defond, M. L. (2002), “Discussion of The Balance Sheet as an Earnings Management Constraint”, *The Accounting Review*, Vol:77, 29-33.
- Demir, V; Bahadır, O. (2007), “Muhasebe Manipülasyonu- Yöntemler ve Teknikler-”, *Mali Çözüm Dergisi*, 84: 103-119.
- Healy, P. M. (1985), *The Effect of Bonus Schemes on Accounting Decisions*, *Journal of Accounting and Economics*, Vol:7, 85-107.
- Jones, J. J. (1991), *Earnings Management During Import Relief Investigations*, *Journal of Accounting Research*, Vol:29, No:2, 193-228.
- Jones, J. J. (1991), “Earnings Management During Import Relief Investigations”, *Journal of Accounting Research*, Vol: 29, No:2, 193-228.

- Kasznik, R. (1999), "On the Association Between Voluntary Disclosure and Earnings Management. Journal of Accounting Research", Vol:37, No:1, 57-81.
- Kaya, G. A. (2017), "Muhasebe Meslek Mensuplarının Muhasebe Bilgi Sistemi Hakkındaki Görüşleri: Elazığ'da Bir Araştırma", Fırat Üniversitesi Sosyal Bilimler Dergisi The Journal of International Social Sciences, Cilt: 28, Sayı: 1, 115-132.
- Kılı, M; Evci, S. (2017), "Muhasebe Manipülasyonlarının Tespitinde Kullanılan Modeller", Osmaniye Korkut Ata University İktisadi ve İdari Bilimler Fakültesi Dergisi Journal of Economics and Administrative Sciences, Cilt:1, Sayı:1, 68-79.
- Küçüksozen, C; Küçükkoçaoğlu, G. (2004), Finansal Bilgi Manipülasyonu: İMKB şirketleri Üzerine Ampirik Bir Çalışma. MÖDAV, 3-5 Kısım, İstanbul.
- Küçüksozen, C. (2004), Finansal Bilgi Manipülasyonu: Nedenleri, Yöntemleri, Amaçları, Teknikleri, Sonuçları ve İMKB Şirketleri Üzerine Ampirik Bir Çalışma, Ankara Üniversitesi Sosyal Bilimler Enstitüsü, Yayınlanmamış Doktora Tezi.
- Lambert, R. A. (1984), "Income Smoothing as Rational Equilibrium Behavior", The Accounting Review", Vol: 59, No:4, 604-618.
- Mulford, C. W.; Comiskey, E. E. (2002), "The Financial Numbers Game Detecting.
- Saltoğlu, M.(2003), "Yaratıcı Muhasebe Özel Amaçlı Şirketlerin Rolü ve Enron Örneği", Muhasebe ve Denetim Bakış Dergisi, Eylül, 107-116.
- Senal, S. (2011), Bağımsız Denetim Kalitesinin Arttırılmasında Kamu Gözetim Kurulu'nun Rolü: Bağımsız Denetim Firmaları Üzerine Bir Araştırma, Doktora Tezi, Süleyman Demirel Üniversitesi Sosyal Bilimler Enstitüsü, Yayınlanmamış Isparta.
- Sweeney, A. P. (1994), "Debt-Covenant Violations and Managers', Accounting Responses", Journal of Accounting and Economics, Vol:17, 281-308.
- Tepeli, Y; Kayıhan, B. (2016), "Muhasebe Manipülasyonunun Beneish Modeli ile Tespit Edilmesi: BİST Gıda Maddeler Sanayi Sektörü'nde Bir Uygulama", Yönetim ve Ekonomi Araştırmaları Dergisi, Cilt: 14, Sayı: 4.
- Trussel, J.(2003), "Assessing Potential Accounting Manipulation: The Financial Characteristics of Charitable Organizations With Higher Than Expected Program-Spending Ratios", Nonprofit and Voluntary Sector Quarterly, Vol:32, No:4, 616-634.
- Wilson M; Shailer, G. (2007), "Accounting Manipulations and Political Costs: Tooth & Co Ltd, 1910-1965", Accounting and Business Research, Vol:37, No:4, 247-266.
- Yılmaz, E. (1996), Hukuk Sözlüğü, Ankara: Yetkin.
- Yılmaz, M. K. (2002), Döviz Vadeli İşlem Sözleşmeleri, DER Yayınları, 2002.
- Yörük, N; Doğan, E. (2009), Finansal Bilgi Manipülasyonu ve Finansal Bilgi Manipülasyonun Belirlenmesine Yönelik, İMKB'de Bir Uygulama, Detay Yayıncılık, Ankara.

4

A FIELD RESEARCH TOWARDS DETERMINATION OF SUBJECTS AND METHODOLOGIES OF ARTICLES PUBLISHED ON AUDITING DURING 2010-2018

Dr. Bilal Solak¹, Fatih Faydalı²

1. Introduction

Nowadays globalization have started to affect business world in every aspects. Accounting is also affected by these transformations which chance the business transaction in corporations (Uyar and Yürekli:2016). The increasing number of new transactions and new worldwide operation of companies have been changing the accounting structure in corporation (Yürekli:2016). Those changing have been affecting the academic researches as well. Number of academic papers in accounting field are increasing day by day.

Although it has become easier to reach scientific knowledge with the infrastructure provided by developed information technologies at the present, the increasing number of scientific studies causes researchers to encounter confusion. Therefore, it has become important to categorize and group the studies in order to eliminate this confusion and guide the researchers in the context of a theme, (Yücel et al., 2015). Various techniques have been developed and implemented to evaluate and categorize scientific journals and articles within the framework of different dimensions. Bibliometric sample can be shown as an example to these techniques.

With the increase in development and use of Internet technologies, facilitation of access to articles published worldwide has provided great convenience in evaluating articles and magazines according to various criteria. This process not only aims to determine the quality of journals and articles, but also produces many indicators that will help academics in their studies (Apak et al., 2016).

Bibliometric analyses made on published academic studies provide great convenience to researchers in reaching the accumulation in their fields. In this context, in this study, the audit articles published in the journals of European Accounting Review and Journal of Accounting, Auditing and Finance were examined and classified according to their subjects and methods used in these studies.

LITERATURE REVIEW

As in all branches of science in the world and in Turkey, accounting science has experienced a great deal of change and development. This development has ensured an increase in number of studies conducted in the accounting literature and thus a rapid development in this field. Many authors in Turkey have provided a comprehensive perspective by evaluating the general status of studies in the field of accounting and using bibliometric indicators (Yücel et al., 2015). The following studies on literature review can be shown as examples in Turkey.

¹ Kyrgyzstan-Turkey Manas University

² Kyrgyzstan-Turkey Manas University

Yücel et al. (2015) examined article theses published on accounting and financial reporting standards in Turkey during 2007-2014. In this study, studies prepared in accounting and reporting standards were discussed in what manner the standards were addressed, with which regulations they were associated and compared. In this context, the articles and theses were examined in sub-headings, and a database was also presented for researchers.

Alkan (2014) conducted a research on master's and PhD theses in the field of accounting at universities in Turkey. In the study, 656 postgraduate studies which was written in the field of accounting between 1984-2012 and which were open to access were examined. Theses within the scope of this study were classified using the content analysis method by examining within the framework of criteria such as subjects, methods used, proposed methodology and their contribution to the field.

Alkan and Özkaya (2015), in their study aiming at revealing general view of the journals indexed in Web of Science SSCI of the Turkish finance and accounting literature, determined that a total of 398 academic studies were published in 75 different journals in the field of finance and accounting. It was determined that 316 of the studies analysed had been published within the last 6 years, and a growing trend was observed in the number of studies published in the journals within the framework of SSCI in those years.

Hotamışlı and Erem (2014) examined the articles published in the Journal of Accounting and Financing during the years 2005-2013 within the framework of their bibliometric properties. In the study, 562 articles were examined, and the popularity of subjects such as financial performance, public economy and financial markets were observed during this period.

Gündüz (2018) analyzed articles in the field of accounting published in academic journals during 2014-2016. It was determined that publications were made in fields of auditing, accounting and auditing standards, and financial accounting in general during that period.

Önce and Başar (2010) analyzed studies conducted in the field of accounting in Turkey and determined the trends in academic studies. The studies were examined subject groups including financial accounting, management and cost accounting, auditing, accounting standards, accounting education, accounting information system, accounting profession and professional members, social accounting and reporting, specialization accounting and others.

Apak et al. (2016) evaluated 107 articles in their study in which they conducted bibliometric analysis of articles published in the Journal of Accounting and Finance Studies during July 2011 and January 2016.

RESEARCH METHODOLOGIES IN ACCOUNTING SCIENCE

Many approaches have been developed to classify studies conducted in accounting science. Researchers who conducted research on the methodologies used in studies in accounting science, discussed the issue with a broader perspective, while some researchers discussed the methodologies in a narrower scope. The classification of the articles examined in this study was carried out by assessing classifications used in the literature.

Olalere (2011), in his study, analyzed research methodologies under the groups including laboratory experiments, field examination, longitudinal, cross-sectional, unified strategy, case studies, grounded theory, ethnographic, interpretive, biographical and others.

Pickerd et al. (2011), in their study, examined the studies conducted in the field of accounting in 3 groups including archival, experimental and analytical.

Oler et al. (2010), in their study, grouped academic studies in the accounting literature as archival, experimental, field study, examination, survey, theoretical and normative.

Coyne et al. (2010), in their study, grouped academic studies in the accounting literature as analytical, experimental, archival and others.

Salterio (2010), in his study, classified studies in the field of accounting as archival, experimental, analytical, observation-based, case study and field study.

Analyzing the studies conducted on accounting literature, it is seen that methodologies used in accounting studies are classified in different ways. Classification of the articles examined in this study is as follows:

3.1. SURVEY RESEARCH METHOD

The survey research method includes methods such as surveys and public opinion polls. Survey studies are conducted to obtain data on a subject or concept. To obtain the data, questions are directed to certain groups without routing (Oler et al., 2010). Among non-experimental research methods, the simplest one is survey research method (Gordon and Porter, 2009: 32). Despite the convenience provided by this method in practice, there are many problems with the reliability of the data obtained using surveys.

3.2. ARCHIVAL RESEARCH METHOD

Archival studies are studies in which secondary data are used. The data used in this method must be obtained from a reliable source and objectively (Pickerd et al., 2011).

Archival research method is the most commonly used research method in the accounting literature, especially in financial accounting studies (Coyne et al., 2010). Archival research method provides many benefits to researchers. The first among these benefits is to save cost and time in the research process. Data to be used in a research are not collected on researcher side, this fact provides focus on data analysis. Data control, audit decisions and judgments in archival research studies represent the facts about the subject of a research. The results laid out using secondary data can be generalizable and can impact applications and standard developers more compared to data obtained by simulating by the purpose of explaining the real world.

3.3. EXPERIMENTAL RESEARCH METHOD

The main difference between ideas- and opinion-based research methods and the experimental method is that experimental research method is a method containing predetermined orientation between groups (Oler et al., 2010). The experimental research method is performed on human subjects and based on the experiment and observation, it aims to establish a direct connection with the actual situation.

3.4. NORMATIVE RESEARCH METHOD

Normative research method includes studies that do not contain data and analytical model. This class accommodates all researches not included in other classes. Assessments of past studies are not included among these studies. Normative research is typically a discussion on a specific accounting process or activity (Oler et al., 2010).

3.5. CASE STUDY RESEARCH METHOD

The case study method is in an experimental structure. Case study is an in-depth research conducted in a real-life environment on an individual, organisational, social or political phenomenon. The case study method is not linked to a specific type of evidence or data collection.

3.6. SIMULATION RESEARCH METHOD

The simulation research method contains pre-determined criteria for an experimental event. This method aims to create a simulation in relation to actual situation. The simulation is used in cases where there is no data related to research question, or where measurements are conducted on variables (Labro, 2015).

3.7. INTERVIEW RESEARCH METHOD

The interview is a meeting conducted to obtain data on a certain subject. In order to mention about an interview, it is necessary to talk about interviews with individuals. Interview method is the exchange of information between participants and researcher. The information exchange in the interview process may be scheduled or unplanned.

4. METHODOLOGY OF THE STUDY

4.1. Scope and Method of the Study

In this study, the articles prepared in the field of accounting between 2010-2018 and published in the field of auditing in the European Accounting Review and Journal of Accounting, Auditing and Finance journals indexed by the SSCI were methodologically examined. In this context, methodological analysis of the articles prepared in each audit area was carried out. The study also examined which methodologies were used at which universities.

The articles contained in the study were evaluated using content analysis. The articles determined for this purpose were analyzed with categoric analysis and frequency analysis, two of the content analysis techniques, and the findings were presented in Tables. The method of content analysis is widely used in qualitative studies. This method allows texts to be digitally reported in context of certain parameters. This method acts as a bridge between qualitative elements and statistical results (Bauer, 2003).

Content analysis, which covers systematic examination of qualitative materials, allows for the determination and regulation of themes of data, along with widespread use in the field of social sciences.

This study aimed to demonstrate studies conducted in the field of auditing in European Accounting Review and Journal of Accounting, Auditing & Finance journals indexed by SSCI for academics who want to conduct research in the field of auditing and for students who want to attend master's degree and doctorate in the field

of accounting in the future; it also aims to assist students and academics at the phase of selection of subjects and methods. When sorting, the cumulative totals were calculated and presented in tables.

4.2. Limitations of the Study

The study covers the articles published in the field of auditing in the European Accounting Review and Journal of Accounting, Auditing and Finance journals indexed by the SSCI during 2010-2018.

4.3. Research Method

Within the scope of the study, a total of 73 articles, published in the field of auditing in European Accounting Review and Journal of Accounting, Auditing & Finance journals indexed by SSCI during 2010-2018, were reached, and content analysis was used which is an archival research methodology in methodological classifications. In this context, abstracts of the articles published in the field of audit in European Accounting Review and Journal of Accounting, Auditing and Finance journals were examined, it was determined in which accounting area and with which methodology these studies were conducted. It was seen that multiple accounting areas and/or multiple methodologies were used in some studies. In the event of such situations, that article was carefully examined, and the main accounting area and the main methodology was taken into consideration through which the article was prepared.

Given the methodologies used in the articles published in the field of auditing in the European Accounting Review and Journal of Accounting, Auditing and Finance journals, research methodologies used in these studies were determined as survey, archive, experimental, normative, simulation and case study methods.

5. RESEARCH FINDINGS

Table 1: Number of articles examined in journals

Periods	Auditing	Percentage	Total (2010-2018)
European Accounting Review	38	16%	224
Journal of Accounting, Auditing & Finance	35	19%	180
Total	73	35%	404

Analyzing the Table 1, a total of 404 articles were examined in European Accounting Review and Journal of Accounting, Auditing & Finance journals between the years 2010-2018 which were examined in the scope of research. It was determined that 73 (35%) of 404 articles were prepared in the field of auditing. The studies were analyzed with content analysis, and results were interpreted.

A FIELD RESEARCH TOWARDS DETERMINATION OF SUBJECTS AND METHODOLOGIES OF ARTICLES PUBLISHED ON AUDITING DURING 2010-2018

Bilal Solak, Fatih Faydalı

Table 2: Articles published in the field of auditing in journals

Periods	1. Period (2010-2013)	2. Period (2014-2018)	Total (2010-2018)
European Accounting Review	18	20	38
Journal of Accounting, Auditing & Finance	9	26	35
Total	27	46	73

Analyzing the Table 1, it was determined that 38 (52%) articles were published in the field of auditing in European Accounting Review journal, and 35 (35%) articles were published in the field of auditing in Journal of Accounting, Auditing & Finance journal.

Table 3: Research Methodologies Preferred in Published Articles

Periods	1. Period (2010-2013)	2. Period (2014-2018)	Total (2010-2018)
Survey	2	3	5
Archive	19	34	53
Experimental	3	3	6
Normative	2	2	4
Case Study	0	1	1
Simulation	0	2	2
Interview	1	1	2
Total	27	46	73

Analyzing the Table 3, it was determined that archival research method was the most commonly used method in 73 articles published in the field of auditing examined in the scope of research. Reviewing the field literature, it was also found that survey and interview methods, which were widely used in Turkey, were not used enough.

Table 4: Research Methodologies Preferred as per Journals

Periods	European Accounting Review	Journal of Accounting, Auditing & Finance	Total (2010-2018)
Survey	1	4	5
Archive	28	25	53
Experimental	3	3	6
Normative	2	2	4
Case Study	1	0	1
Simulation	1	1	2
Interview	2	0	2
Total	38	35	73

Analyzing the Table 4, it was determined that archival research method was the most widely used method in European Accounting Review and Journal of Accounting, Auditing & Finance journals examined in the scope of research. Reviewing the field literature, it was also found that survey and interview methods, which were widely used in Turkey, were not used enough.

Table 5: The percentage of preferred Research Methodologies within the total

	Survey	Archive	Experimental	Normative	Case Study	Simulation	Interview
Number	5	53	6	4	1	2	2
Percentage	7%	73%	8%	5%	1%	3%	3%

Analyzing the Table 5, it was determined that the most commonly used research methodology in the field of auditing was archival studies. In 73% of the studies conducted in the field of auditing, archival research methodology was found to be used. The main reason why archival studies are so widespread is that the good data bank in America and Europe is functioning.

Table 6: The Distribution and University Rankings of the Studies Conducted in the Field of Auditing during 2010-2018

Order	University	Survey	Archive	Experimental	Normative	Case Study	Simulation	Interview
1	Aalto University		2					
2	American University		1					
3	American University of Sharjah		1					
4	Anhui University of Technology		1					
5	Arizona State University		1					
6	Aston Business School						1	
7	Biola University		1					
8	California State University		2					
9	Cass Business School		1					
10	City University of Hong Kong		1					
11	City University of London		1					
12	Claremont Mckenna College						1	
13	Clemson University		1					
14	Concordia University		2					

A FIELD RESEARCH TOWARDS DETERMINATION OF SUBJECTS AND METHODOLOGIES OF ARTICLES PUBLISHED ON AUDITING DURING 2010-2018

Bilal Solak, Fatih Faydalı

Order	University	Survey	Archive	Experimental	Normative	Case Study	Simulation	Interview
15	Copenhagen Business School		1		1			
16	Deakin University		1					
17	Depaul University							
18	Duquesne University		1					
19	Durham University		1					
20	Erasmus University							
21	ESCP Europe Berlin			1				
22	ESSEC Business School		1					
23	Florida Atlantic University		1					
24	Fordham University		1					
25	Frankfurt School of Finance & Management						1	
26	Free University			1				
27	FreieUniversitat Berlin			1		1		
28	George Mason University		1					
29	HEC Lausanne		1					
30	HEC Paris		1					
31	Heriot-Watt University		1					
32	Heriot-Watt University		1					
33	Hong Kong University of Science and Technology		1					
34	IE University		1					
35	IESEG School of Management		1					

Table 7: Auditing Subjects Studies as per Journals

Periods	European Accounting Review	Journal of Accounting, Auditing & Finance	Total (2010-2018)
Auditing Fee	5	10	15
Auditing Quality	3	6	9
Reporting and Auditing Relationship	9	5	14
Corporate Governance	3	3	4
Auditor Independence	6	2	8
Internal Audit-Control	7	6	13
Other	5	3	8
Total	38	35	73

Analyzing the Table 7, it was determined that auditing fee, auditing quality and relationship of financial reporting process with auditing quality were the most examined subjects in European Accounting Review and Journal of Accounting, Auditing & Finance journals. Reviewing the field literature, it is another finding that, while the subject of auditing quality is studied excessively in Turkey, there are limited number of studies conducted on the audit fee. Insufficient data on the audit fee is thought to be the reason for low number of studies conducted towards the audit fee in Turkey. All topics except the specified headings were added to the other part.

Table 8: The Percentages within the total of Audit Subjects Studied as per Journals

	Auditing Fee	Auditing Quality	Inner control	Reporting and Auditing Relationship	Corporate Governance	Auditor Independence	Other
Number	15	9	13	14	6	8	8
Percentage	20%	73%	17%	19%	8%	10%	10%

Analyzing the Table, percentages of the subjects studied most in European Accounting Review and Journal of Accounting, Auditing & Finance journals examined in the scope of research. It is observed that articles written on auditing fee and internal controls constituted the highest share as percentage.

Results and Suggestions

The audit is an increasingly important study area together with accounting scandals emerging during 2000s. This situation supports the increase in doctoral and scientific studies written in the field of auditing.

Within the scope of the study, a total of 73 articles, published in the field of auditing in European Accounting Review and Journal of Accounting, Auditing & Finance journals indexed by SSCI during 2010-2018, were reached, and content analysis was used which is an archival research methodology in methodological classifications.

Within the scope of this study, a total of 73 articles conducted in the field of auditing were examined from European Accounting Review and Journal of Accounting, Auditing & Finance journals. Analyzing study findings, it was determined that the most commonly used research methodology in the field of auditing was archival studies. It is considered that scientists who will perform master's and PhD studies in the field of auditing should be given weight to archival studies.

It is another important finding of the study that American universities use the archival methodology more. Reviewing the field literature, it was also found that survey and interview methods, which were widely used in Turkey, were not used enough.

Given the methodologies used in the articles published in the field of auditing in European Accounting Review and Journal of Accounting, Auditing and Finance journals, research methodologies used in these studies were determined as survey, archive, experimental, normative, simulation and case study methods.

It was determined that auditing fee, auditing quality and relationship of financial reporting process with auditing quality were the most examined subjects in European Accounting Review and Journal of Accounting, Auditing & Finance journals. Reviewing the field literature, it is another finding that, while the subject of auditing quality is studied excessively in Turkey, there are limited number of studies conducted on the audit fee. Insufficient data on the audit fee is thought to be the reason for low number of studies conducted towards the audit fee in Turkey.

This study covers articles published in the field of auditing in European Accounting Review and Journal of Accounting, Auditing and Finance journals indexed by SSCI during 2010-2018. Examining the other journals indexed by SSCI by comparing these journals in future studies is thought to contribute to the field literature.

References

- Alkan, G. (2014). Türkiye'de Muhasebe Alanında Yapılan Lisansüstü Tez Çalışmaları Üzerine Bir Araştırma (1984-2012). *Muhasebe ve Finansman Dergisi* (61), 41-52.
- Alkan, G., & Özkaya, H. (2015). Türk Muhasebe ve Finans Yazınının SSCI' da 20 Yılı. *Muhasebe ve Finansman Dergisi* (66), 175-192.
- Apak , S., Erol, M., & Öztürk , S. (2016). Muhasebe ve Finans Tarihi Araştırmaları Dergisinde Yayınlanan Makalelerin Bibliyometrik Analizi. *Muhasebe ve Finans Tarihi Araştırmaları Dergisi* (11), 111-124.
- Bauer, M. W. (2003). *Classical Content Analysis: A review*. London: Sage Publicaiton.
- Coyne, J. G., Summers, S. L., Williams, B., & Wood, D. A. (2010). Accounting Program Research Rankings by Topial Area and Methodology. *Issues in Accounting Education*, 25 (4), 631-654.
- Gordon, T. P., & Porter, J. C. (2009). Reading and Understanding Academic Research in Accounting: A Guide For Students. *Global Perspective on Accounting Education* (6), 25-42.
- Gündüz, M. (2018). Türkiye'de 2014-2016 Yılları Arasında Akademik Dergilerde Muhasebe Alanında Yayınlanan Makalelerin Bibliyometrik Analizi. *Muhasebe Bilim Dünyası Dergisi*, 20 (1), 236-257.
- Hotamışlı , M., & Erem , I. (2014). Muhasebe ve Finansman Dergisi' nde Yayınlanan Makalelerin Bibliyometrik Analizi. *Muhasebe ve Finansman Dergisi* (63), 1-20.

- Labro, E. (2015). Using Simulation Methods in Accounting Research. *Journal of Management Control*, 26 (2), 99-104.
- Olalere , T. (n.d.). *CiteSeerX*. Retrieved 09 30, 2018, from CiteSeerX: <http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.220.6886>
- Oler, D., Oler, M., & Skousen , J. C. (2010). Characterizing Accounting Research. *Accounting Horizons*, 24 (4), 635-670.
- Önce, S., & Başar, B. . (2010). Türkiye' deki Akademik Araştırma Dergilerinde Muhasebe Alanında Yazılmış Makalelerin Analizi: 2000-2008. *Muhasebe ve Finansman Dergisi* (45), 55-68.
- Pickerd, J., Stephens , N. M., Summers, S. L., & Wood, D. A. (2011). Individual Accounting Faculty Research Rankingby Topical Area and Methodology. *Issues in Accounting Education*, 26 (3), 471-505.
- Salterio, S. (2010). *Contemporary Accounting Research:2010 Editor's Report*. Retrieved 09 25, 2018, from www.caaa.ca: https://www.caaa.ca/media/31586/file_car_editor_s_report_2010___final.pdf
- Uyar, S., & Yürekli, E. (2016). Şeffaflık ve Hesap Verebilirlik Açısından Mesleki Yargı. *Muhasebe Bilim Dünyası*, 18, 781-812.
- Yücel, S., Öncü , M. A., & Kartal, O. (2015). Türkiye'de Muhasebe Ve Finansal Raporlama Standartları Konularında Yayınlanmış Akademik Çalışmalar (2007-2014 Arası Literatür Taraması). *Muhasebe ve Finansman Dergisi*(68), 39-66.
- Yürekli, E. (2016). How Does The Corporate Affect the Implamentation of IFRS? *International Journal of Contemporary Economics and Administrative Science*, 86-104.

5

NEW BUSINESS MODELS AND SOCIAL INNOVATIVENESS

Dr. Mehmet Karahan¹

1. Social Innovativeness

It is stated that the concept “social innovativeness” was first introduced by Max Weber toward 19th century. Joseph Schumpeter put forward in 1930s that social innovation was necessary to be considered together with technological innovation to provide the need and economic efficiency. Particularly, in the recent years, it has been seen that social innovation has spread to all sectors of the society related to the various activities such as non-profit institutes, social entrepreneurship, social economy, service sector and applications of institutional responsibility (Eren, 2010).

The concept social innovation Godin dealt with, dating to the early times of the concept technical innovation, in the framework of the theories developed for solution of social problems arising together with industrial revolution, has begun to develop as a phenomenon in the face of ever increasing social risks in global world such as climatic change, massive unemployment, collapse of social security system, health problems and refugee problem. The global threats of today going from climatic change to unemployment and poverty are both economic and social. The last economic crises – some part of whose roots can be found in financial innovation - remind us that mobilizing the science, technology and innovation is important for not only providing economic benefit but also noticing social problems and taking action (Tatar and Arslan, 2017).

Social innovation is considered as if it intertwines with the other sort of innovations. Without occurring the product, service and process innovation and without making organizational and marketing innovation, it is impossible for social system to develop. Pot and Vaas view the innovations as complementary of social innovations, because social innovation, as a part of process innovation as well as product innovation, includes modernization of industrial relationship and human resources management (Eren, 2010).

Social innovation, due to its character, does not have a uniformly accepted definition. Some authors emphasize welfare of society and others emphasize the new and actual solutions for social problems. Social innovation answers the problems of a certain community in the newest and latest way to increase welfare of a society. Potential of social innovation is a total of social abilities that can occur in creating social innovations (Kocziszky and Somosi, 2016). Social innovation is the process of determining and presenting the new services improving quality of life of society, defining new competencies and participation forms and searching new answers for social problems. The term “social innovation” is used for stating the new ideas (products, services, models) developed for satisfying social needs unsatisfied. Most of them are supported by public sector and the others are supported by the communities and voluntary agencies. Social innovation is not limited with any sector and area (Matei and Antonie, 2014).

Social innovation is referred to the innovative activities and services motivated with the aim of satisfying a social need and becoming widespread through social organizations that are basically social. Trade innovation is generally motivated by profit maximization and, first of all, spreads through organizations motivated by profit maximization.

¹ Fırat University

Certainly, there are cross-border cases, for example, distance education models, pioneered in social organizations but later adopted by businesses or some non-profit businesses developing new approaches for helping disabled people to get a job. But these definitions provide a reasonable beginning point (Mulgan, 2006).

Some academics studying on social innovation and some of definitions of academics showing direction to the other researchers with their works and of institutes shedding light on the applications in the area are shown in Table 1.

Table 1. *Definitions of Social Innovations (Erbil, 2015)*

Definitions of Academics	
Mumford (2002)	Social innovation is to develop new ideas regarding the adjustment forms the relationships between the people or social interactions that will provide public interest one or more than one and apply these ideas.
Moulaert et al. (2005)	It is to remove human needs that cannot be satisfied or dealt with.
Mulgan (2006)	It is innovative activities and services, which become widespread by the organizations that have the aim to meet social needs and whose primary aim is social.
Phillips et al. (2008)	It is an effective, efficient and sustainable new solution developed for the solution of social problem or improving the existing solution that is introduced to remove the problem
Westley (2008)	It is an enterprise, product, process or programs that largely change the main function, resources, authority flow or beliefs in any social system.
Pol ve Ville (2009)	Social innovation includes to be introduced new ideas that have positive role on quality of life and lifetime.
Howaldt ve Schwarz (2010)	It is the way social applications are newly adjusted or newly formed, in order to better satisfy the needs than the current applications or be able to answer the needs.
Manzini (2014)	It is a change process beginning with again bringing together the existing entities (from social entities to historical heritage; traditional artisanship) toward achieving socially adopted targets.
Definitions of Agencies	
International Forum on Social Innovation (2000)	It is ability to be innovative about social behavior. It is focused on changing roles and, thus, on the ability serving the agencies to be changed.
Forum on Social Innovation (2000)	It is the forms of defining and presenting the new services to increase quality of life of individuals and societies, of defining and executing new integration process of labor force market, and of new jobs and new participation to strengthen the place of individuals in business life
The Young Foundation (2007)	It is new ideas meeting social aims.
European Commission (Bosc, 2013)	It is new ideas creating new social relationships and new togetherness, while meeting social needs.
NESTA (Murray vd., 2010)	It is innovation, which has social quality in both tools and results and which is both good for society and raise the ability of society to get into action. It is new ideas creating new social relationships and new togetherness, while meeting social needs.
Centre for Social Innovation (2014)	It is the creation and development of new designs and integration of them in compatible way to examine the human being and planet.
OECD LEED Forum on Social Innovation (2014)	The change of conceptual process and product is interested in organizational change or financial change. It is the effort to make new relationships with stakeholders and working environment.

When the definitions in Table 1 are examined, it is evident that it will provide help in making decision regarding which processes can be accepted as social innovations. With moving from the common expressions in Table, it is possible to define social innovation as a process covering the development and application of new ideas, thus, structuring or changing social relationships and system, and enabling quality of life of individuals to increase.

Social innovation is clearly for social and public goodness. Social innovation is an innovation inspiring from the idea to meet social needs that are ignored by the traditional private sector and cannot be solved by the service the government gives. Social innovation can be introduced by public sector, private sector, third sector, or users and communities. However, all of those introduced by these sectors cannot be qualified as social innovation, because some innovations cannot produce solution to the principal social problems (Ciftci, 2015).

Social innovation is defined as an approach introducing new solutions and applications to comply with a large variety of global problems such as economic crises and climatic changes, lack of energy and resource, health services and demographic unbalances, which become a larger problem every passing day. In another definition, social innovation is defined as innovative activities and services developed and made prevalent by social-aimed institutes to meet social needs. If we classify the aims of social innovation as general and special aims, while elimination of inequalities and its making contribution to sustainable development form the general aims of social innovations, removing social needs and developing life standards are qualified as special aims of social innovations (Özdemir and Ar, 2015).

In respect of its structure and application areas, social innovation requires to form comprehensive communication network and cooperation between many people. At this point, developing interinstitutional interaction and applications of social innovation depend on right management of the expectations regarding institutional competencies and duty distribution and providing mutual confidence.

2. Characteristics and Interest Areas of Social Innovation

Social innovation has several determinative characteristics. These characteristics differentiate from the other innovations such as annual policies, repeating projects, and routine activities (Dobele, 2015). The important characteristic of social innovation is innovation. Social innovations aim at “developing the new concepts, strategies and instruments supporting groups in achieving the target of developed welfare”.

As J. Schumpeter defines, innovation is accepted as new composition of new elements (e.g. introduction of a new production method, opening a new market, executing a new organization). Social innovation should be perceived as new in the context of the relevant society; for others, it is not necessary for it to be new. It is not important whether or not innovation comes from an increasing or radical change, i.e. in an ordinary behavior, from a little adjustment or evolution project.

Social innovation forms changes “in human structure and organization” and, thus, life standards improve and development of human resources is promoted. Social innovation is a change process, which is based on ethical value judgements, content, and programs, which makes important changes in the existing system of social structure and existing action plan, and which are supported by all participants and exposed people. Change scale differs from the changes at micro level to macro level. For example, while its micro aspect has a valuable work, environmental problems and political stability is an example for macro dimensions.

Social innovation should be based on social motivation. Social innovation is related to satisfaction from the changes in social relationships in strengthening main needs and social processes. It is also related to the people and agencies, who are affected from deprivation and inferiority in the daily life and services, who are weak in view of lack of rights and inability to decide, and who are engaged in agencies and movement supporting social innovativeness. In the following Table 2, the determinative elements of social innovation historically put in order from the past to present according to the view of different authors.

Table2. *Determinative Elements of Social Innovation (Dobele, 2015)*

Author	Definition of Social Innovation	Character of Social Innovation
J. Schumpeter (1942)	New composition of new elements, which are not seen in the previous economic system	New, Innovation
S. D. Conger (2009)	New laws, organizations or methods leading to changes in the common or individual relationships	Definitions of Changes
J. Howaldt, H. Jacobsen (2010)	A new combination and/or configuration of some actors or elite communities of actors or of social applications in certain areas of communities and applications established in the way that is aimed to better predict or answer the needs and problems	Solving social problems
G. Mulganvd. (2006)	The new ideas working for satisfying unsatisfied needs and improving lives of people.	Providing benefit for all society.
J. Phillipsvd. (2008)	Finding more effective and sustainable solutions to a social problem and developing the new solutions that are different and acceptable by the society from the existing solutions	Sustainability and Effectiveness
A. Khutrakun (2013)	That a social innovation has the three determinative features: social value, innovation, and social motivation.	Social Motivation

As a result of literature analysis carried out to determine the main characteristics of social innovation, utilizing the common denominators of the existing solutions, some characteristics were determined. These characteristics can be explained as follows (Dobele, 2015).

1. It must create a positive social effect.
2. It must be managed by both social and economic motivations.
3. It must be new.
4. It must be upgraded by the different factors (NGO, public institute, etc.)
5. It must be scalable
6. It must be sustainable.
7. It must have the different forms.
8. It must improve and change the life of poor people.

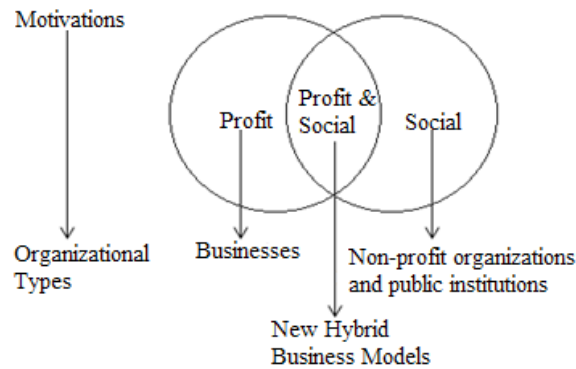
The first characteristic of social innovation is social target. Innovation is one of main factors affecting economic growth and developing life standard. Social innovation is an instrument for making social change, enhancing quality of life, and producing the solutions and approaches to the various problems. Social effect of innovation is related to enhancing quality of life of the people beyond immediate use of product and service, creating a product

or service in an appropriate price without compromising from the quality, and touching on the problem with the efficiency of resource use for largely managing low-cost structure.

It is also important to emphasize that social effect of innovation on community are two-folded: social innovations are shaped by social system and also affect social system. The second characteristic that is directly related to the social effect of innovation is motivation taking it to social innovation. Trade innovation is generally motivated by the profit and it is first spread through organizations motivated by profit maximization. However, there are many situations, where the lines are blurry. For example, non-profit businesses can make innovation, developing the new approaches for helping the disabled people in workplace.

The different motivations, as seen in Figure 1, lead to the different organizational forms. Profit is the main motivation of traditional trade. Social motivation represents the nature of non-profit agencies and public institutes and profit and social motivation form the new hybrid theoretical structures.

Figure 1. *Motivations and sorts of social innovation organizations (Michelini, 2012).*



Although it is not necessary for innovations to be original, the applications to be made in the context of users should be new. Hence, innovations can be in the different new forms such as ideas, activities, products, services, work models or distribution channels. Here, the primary aim of innovation is to bring the new products in the world or market, where they are present, for obtaining a real competitive advantage and persuade consumers about that product will provide new benefits. This process requires to develop a new way or form of the existing idea or information. New social ideas may not be completely new within themselves. Commonly, they combine the ideas that are earlier decomposed. Social innovation often includes “not only new ideas but also renewing the existing ideas and reusing them”.

The other characteristic supporting social innovation is related to “actors”. Social innovation can be managed by the governments, private sector, nongovernmental organization or some of these actors. Social Innovation of Europe (SIE), in the study it carried out, suggested that social innovation can come from every sector (public sector, private sector, the third sector, and individual) and that some innovations move through sectors as they develop. Innovations can be developed by the global actors (multinational companies or large local companies) or local actors. Furthermore, a foreign actor can mobilize the resources of local institute or motivate the ability to develop social innovation (for facilitating bottom to top activation, promoting top to bottom innovation).

Social innovation should be “scalable”. The concept scaling refers to increasing the scope or area of an activity, program, or entrepreneur and, thus, serving more people or forming more benefit. Although the different scaling models are present, the relevant models affecting the development of social innovation are (Michelini, 2012):

- Qualitative scaling: spread of innovation, increasing the success of innovation in new communities or that it is able to cover a larger area
- Functional scaling: increase of typologies (sorts) of innovation
- Organizational scaling: increasing the affectivity of innovative organization

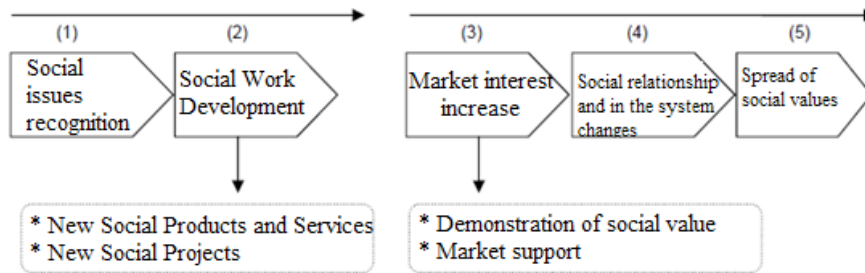
After these explanations, if we put in order the general qualifications of social innovations, it is necessary to particularly emphasize the following points (Koç, 2010):

- It is lifelong and durable.
- It can bring together the very different elements under the same roof
- It makes social entrepreneurship and enterprises
- In respect of negative or positive results, it has the power to affect large social sectors.
- It requires the long time analysis of social problems.
- It needs social awareness and support
- It requires to be supported by several infrastructure factors such as technology and media.

A stable world may not need innovation. However, innovation is needed, when the problems increasingly worsen, when the systems do not work as desired or in case that the institutes face to difficulties due to the problems they experience in the past. Another driving force of innovativeness is that between what is present and what is necessary to be, the people are not aware of the gap (a continuously expanding gap with emergence of new technologies and new scientific developments) between what is the people need and those introduced by governments, private firms, and NGOs

3. Formation of Social Innovation

Social innovation is a solution, process, thought structure, and idea that can change the world. Economic innovations are generally divided into four as Product, Process, Position, and Paradigm (4P). This distinction made while dealing with social innovation becomes a useful beginning point. For example, the language developed to strengthen the integrations of minorities is a new educational method like integration program and product innovation. It can transmit through an innovative way; for example, it can transport in internet (process innovation) and a new target mass (position innovation). Innovation in the style marking an era accompanies paradigm change (paradigm innovation) such as that everybody has the right to be educated and equal opportunity. The aim in innovation is directly to form a social benefit. The process of forming social value is summarized in the following Figure 2.

Figure 2. *Spread Process of Social Innovation (Eren, 2010).*

In innovation literature, process generally develops through a set of stage from the stage of developing idea to prototype and pilot study, developing and learning. When an idea is developed for a new solution, it is necessary for an almost long time to pass to the first use of this solution or stage that the idea spreads, being accepted by a large sector. The formation of social innovations follows the processes of defining problem, trying suggestions and alternatives, defining what to be done and taking test outputs, testing, and evaluating.

In social innovations, the most important stage after developing idea is spread and acceptance. While analyzing social effects on innovation, adopting social innovations depends on cultural adaptation, social need, and the existing values. Social innovations cannot be developed in the same speed with technological innovations and it can take long time to be accepted and applied by a large sector. For example, in 1809, ombudsman emerging in Sweden cannot become widespread until it was secondly applied in Finland 110 years later in 1919. In the next years, it was applied in the countries such as Denmark, Norway, and New Zealand and could become widespread. In similar way, in 6500 years that passed from Sumerian period, when the schools were first established, to the present, with the new laws, agencies and methods, education can reach the present's state (Eren, 2010).

For the people to be able to understand the recent form of social innovation, they need flexibility process in experiencing and contributing forms. The state of this flexibility and becoming open to the competitive comments is the base of process, in which complex relationships contribute to objective formulations in setting target model. Common observations and shared models can provide some limits for a common focus group. However, alternative priorities and different experiences will mean that the various comments occur about the nature of the problem. Therefore, open dialogue, constructive negotiation, reflective deciding, dialogue and design that are the essence of social innovation processes are the necessary instruments for the success of managerial process of social innovation (Dawson and Daniel, 2010).

Spread of social innovation follows a way similar to "S" curve. In the beginning stage, with adopting innovation by a small supportive group, together with a slow progress and, following this; a period of rapid departure and reaching maturity, a slowing progress is recorded. A successful social innovativeness or movement tries to form new ideas in the mind of the other people and get these new ideas adopted. In scientific studies carried out, it was argued that an information economy formed behind technological innovations and emphasized that technical knowledge was an indispensable requirement but that social information will determine who will be competitive. Since there is not any market, in which social innovations can be sold, it is impossible to predict the financial value of this information used in social processes. This case delays spread of successful models and social innovations.

The effective communication in social innovation process play important role in providing a comprehensive acceptance. The individuals or groups desiring this innovation, as long as they consider that innovation harms to them, deal with the benefits and suitability of that innovation. When the benefits and suitability of innovation become definite, positioning innovation by those adopting becomes easier. For example, Linux is an open resource –coded software that are realized by social aims. In developing the new parts of software and finding solution to the errors, what motivates people is to gain respect and prestige from the other members of community. Hence, economic change replaced with social change here.

It is seen that technological innovations form through similar processes and both formation and spread take long time. That social innovations can obtain the expected success requires that it is culturally acceptable, economically sustainable and technologically applicable.

4. Social innovation Applications in the world and Turkey

Social innovations, considering social conditions, emerge to meet the existing social needs. From the past to the present time, many social innovations were developed, which affect social life. Some of them are Eren, 2010):

- That schools were opened in Sumerians in B.C. 2500.
- That the courts were established in Sumerians in B.C.2400.
- That libraries were established in Assyrians in B.C. 625
- That labor unions were gone into action in England in 1696.
- That Red Cross in Genova in 1864
- In order to improve quality of human health, strengthening health systems and applying the methods like diagnosis through telephone.
- That the concept of distance –learning of open university first established in 1969 enables millions of people to take higher education from their houses (still in 22 countries)
- With developing participant –specific new education methods, the schools encouraging the children and young to solve problem, make decision, take responsibility, make teamwork and be creative; forming new educational curriculums and programs; providing vocational education for disabled people
- With development of internet, the use of e-government people and Google maps.
- Developing open resource coded methods such as Linux Software and Wikipedia.
- Developing the concept of recycling and carbon-free house; increasing environmental awareness by establishing nongovernmental organizations such as Greenpeace, developing environmental friendly automobile motors and environmental control systems.
- Creating new markets and economic possibilities for the poor, forming social enterprises such as Microcredit system and consumer cooperatives
- In order to defend and protect human rights, that the agencies such as Amnesty International goes into action.

Social system is developed by supportive social innovations coming together with triggering social innovations. For example, after establishing courts, although the terms such as judge, jury, lawyer, lawsuit, defense, new laws, and faculty of law individually emerge, all of them have become a part of bigger picture called “Justice System” and

justice system are more effective and efficient. Another example may be library. Beyond establishing libraries and forming a membership system, providing the possibility to read book for people and individually internet access to libraries at the present time are examples that can be given for continuous improvements with innovations (Bulutet al., 2013).

That automobiles become widespread was provided with only developing modern production lines and internal combustion motor technologies. While [the development of automotive industry] accompanies many social innovations such as driving schools, road signs, garages, and traffic officer, it has increased dependence on energy resources and the increase of the ways of alternative energy use has encouraged the people to direct innovations (Halaçvd., 2014).

When regarded to the educational innovations, all innovations coming after developing the schools and universities are seen to make the education more effective. That education in classrooms begins, that compulsory attendance is introduced, that kindergartens are opened, that the stages in education is formed, that tests are developed, that school counselors are utilized, that education-aimed televisions start to broadcast, that lifelong learning programs are introduced, and that computer –aided curriculum is formed are some of the actual applications increasing the effectiveness of education. Computer and internet -aided distance –education systems has become widespread the idea that individual development and learning can be carried out independently from the time and space with alternative methods to the current education systems. Therefore, computer-aided education can be considered as a large social innovation.

4.1. Social Innovation in the World

In 2006, Muhammed Yunus and Gramen Bank were awarded by Nobel Peace Prize due to their realizing economic and social development for low income individuals. Muhammed Yunus and Gramen Bank won for the idea they have developed, which is simple but leads to worldwide social innovation. This idea, in summary, is to present banking services to the poor people by allocating micro credit. Beside this, some of the leading ideas transforming into social innovation carried out all over the world can be counted as trade fairs, e-learning, neighboring kindergartens, and repairing justice works. As in these examples, the thought of social innovation are designed by the idea to solve the social, environmental, and economic problems the society face to. Social innovation applications needs interdisciplinary and multinational network studies. Social innovation is realized for designing, presenting, and sustaining new services. Social services is that third sector organizations being active in the other public sector services such as health and education apply a variety of projects to solve social problems. For example, Unilever Foundationdetermined its institutional mission as accessing hygienic and clean drinking water; presenting the basic nutritional possibilities; and helping individuals increase their self-confidence. According to the claim of Vaqf, Unilever, with its cooperation, had a positive social effect in the life of the individuals more than 4.5 million (Topsakaland Yüzbaşıoğlu, 2017).

In the countries understanding the importance of social innovation and producing important policies, the following examples are given to the innovative project and organizations creating social change (Eren, 2010).

- **Apathy is Boring:** This is a project developed for developing the abilities of young about art, media, and technology and providing their active participations in democratic environment. In the project that began in

2004, 500.000 participation were provided. The free education and consultancy services are given to the young people about art activities and trading.

- JUMP Math: JUMP(Junior Undiscovered Mathematical Prodigies), developed in 1998, introduced a new approach to the mathematics education. JUMP Mathematic Philosophy is based on the principle that “all children can be directed to thinking related to mathematics”. In traditional education system, while the children learning mathematics hard are very quickly removed from the system, JUMP method aims at engraining in the belief that all children can succeed mathematics with a very little attention. Many teachers taking the education of JUMP Mathematic Methodology apply this method in their classroom.
- Rodrigo Baggio, social entrepreneur, with the financial support he took, through computer network he formed in the schools more than 200 in suburbs of 17 states of Brazil, gave the education developing computer and internet abilities to 1 million children under risk. Helping the students who can direct to the violation and drug, he formed important job opportunities.

4.2. Social Innovation Applications in Turkey

The foundation stage of Turkish Republic is full of many examples of social innovation. Some of these were presented below as example (Eren, 2010).

Village Institutes: This is one of the most original and influential projects of Republic Period in educational area. Considering the reality that there are no school and teacher in almost all Anatolia, with the thought that primary school –graduated smart children from the village, again going to the village, work in these schools as teacher after being raised in these schools, over 13 years between 1940 -1953, 21 institutes were established and 17.000 students graduated from these schools. The teachers were raised to equalize the disordered balance between the people living in rural sector and urbanites, raises skilled people, provide modern production tools, increase production by giving the practical information to the villagers. The main element of institute is to take the pre -service teacher from the village, allocating land to him/her in the village, in which he/she gets to work and providing inputs and agricultural tools after graduation, and subject to compulsory service him/her for years. The teachers, bringing the literacy and basic information in villagers, both gave formal education and taught modern agricultural techniques that are known in that region to them. In Village Institutes, it was targeted on providing active participation instead of passive participation and giving value and responsibility to the students was adopted as the main principle of education. Preparing course program and its content together with the students and attributing these programs to their creativity are based on. Village institutes formed an unique example in the world about learning by doing and the principle of “education for work in work” was applied instead of learning book and notebook –based. The person, who learned to be productive in school desks, engaged in the work on his/her own and succeeded in this, could solve the problem on his/her own in the rural area, and trained people in that self-confidence.

Work and Construction Machines Cluster (İŞİM), as a regional development model in the leadership and sponsorship of Cankaya University, have carried out its works in OSTİM since 2007. Thanks to this cooperation foreseeing to cluster 120 firms in the direction of common aims, it has been tried to reinforce regional development, develop and form new standards in the economy and industry. In this context, the works increasing and supporting competitive power of the firms in national and international market are made. In cluster, about technological developments and quality standards, members are helped and activities are organized about the supply and education of high-skilled technical and the other employees international competition requires in the direction of members’ desires.

In addition, leadership are made to carry out studies for strengthening the sector, to take the views of the specialist industrialists, scientists and entrepreneurs, and report these views to transmit to the public authority. Since the clustering of interest provides both economic and social development of the firms and the regions, where firms take place, it is one of the best local examples to be given to the social entrepreneurship.

Six Point Association of Blind *Six Point Association of Blind* is the biggest and oldest association in this area established in 1957, in order to produce the solutions to the economic, social, educational, cultural, and vocational problems of visually –handicapped in our country. Its founder chairman is Assoc. Prof. Dr. Mithat Enç, whose himself is visually-handicapped. Today, it has 28 branches in country and about 6.000 members. All members of this association are visually- handicapped and all of association managers are visually -handicapped. Association gives services for schooling in the education of visually- handicapped people and installs rehabilitation, educational and cultural centers, and libraries for education of visually –handicapped people. Monthly magazine called “*Voice of Six Point*” have been continuing publication life since 1986. Association also make active contribution in the preparation of legal regulation regarding the rights of disabled people and in the struggle in the direction of getting these regulations adopted with its view and suggestions and its actions and activities

The foundation stage of Turkish Republic is full of many examples of social innovation such as Language Reform and Statist Economic Development Model. The examples experienced at the present time are socially contented applications of innovation many agencies carry out such as e-government applications enabling public services to be made through internet, Smart City Automation System (AKOS), TEMA and AKUT efforts for providing participation and pluralism, Turkish Education Foundation, and Turkish Education Volunteers Foundation.

5. References

- Balta, M E; Darlington, C. Smith, L; Cornelius, N. (2012). Entrepreneurial Orientation and Social Innovation Practices in Social Enterprises: The Rhetoric and Reality, *International Journal of Business and Social Science*, Vol:3, No:17; p.24-32.
- Bulut, Ç; Eren, H; Seçkin Halaç, D.(2013). Social Innovation and Psychometric Analysis; *Procedia-Social and Behavioral Sciences*, No.82, p.122-130.
- Cajaiba-Santana, G (2014). Social Innovation: Moving the Field Forward-A Conceptual Framework; *Technological Forecasting and Social Change*, Vol:82, p.42-51.
- Çiftçi, N(2015). Sosyal Girişim Olarak STK'lar: İnovatif Beceriler Çerçevesinde Konya İlinde Bir Araştırma, Yüksek Lisans Tezi; Sosyal Bilimler Enstitüsü, Konya.
- Dawson, P; Daniel, L(2010). Understanding Social Innovation: A Provisional Framework; *International Journal of Technology Management*, Vol:51, No.1.
- Didero, M; Gareis, K; Marques, P; Ratzke, M (2008). Differences in Innovation Culture Across Europe, Benchmarking and Fostering Transformative Use of ICT in EU Regions.
- Dobele, L(2015). Factors Which Influence The Development of Social Innovation in Latvia; *Economic Science for Rural Development*, No.40, p.226-238, April 2015, Jelgava, Latvia.
- Erbil, C(2015). İşletmelerin İnovasyon Sürecinde Sosyal Fayda Yaratma Becerileri: Sosyal İnovasyon Çerçevesinde Örnek Bir Uygulama, Doktora Tezi; Selçuk Üniversitesi, Sosyal Bilimler Enstitüsü, Konya.

- Eren, H(2010). Üniversite Öğrencilerinin Sosyal yenilikçilik Kapasitelerinin teknolojik Yenilikçilik Eğilimlerine Etkisini Ölçmeye Yönelik Bir Model Önerisi; Doktora Tezi, Ankara.
- Kazançoğlu, İ; Dirsehan, T(2016). Sosyal İnovasyon ile Sakin Şehirlerarasındaki İlişkinin Sosyal Girişim(ciler Açısından İncelenmesi: Seferihisar Örneği; Ege Stratejik Araştırmalar Dergisi, Cilt:7, Özel Sayı.
- Kociszky, G; Somosi, M. V.(2016). GeneratingSocialInnovationwith Knowledge Engineering; Procedia-SocialandBehavioralSciences, No.223, p.167-174.
- Koç, O. (2010). Toplumsal Sorunlarla Mücadelede Bir Kaldıraç Olarak Sosyal İnovasyon ve Sosyal Girişimcilik Açısından Önemi; Girişimcilik ve Kalkınma Dergisi, Cilt:5, Sayı:2.
- Matei, A; Antonie, C.(2015). Complexitytheoryandthe Development of theSocialInnovation; Procedia-SocialandBehavioralSciences, No.185, p.61-66, 2015.
- Michelini, L(2012). SocialInnovationand New BussinessModels, Springer, London, <http://www.springer.com/series/8860>.
- Mulgan, G (2006). TheProcess of SocialInnovation; Innovation: Technology, Governance, Globalization, Vol:1, Issue:2, p.145-162.
- Mulgan. G; Tucker, S; Ali, R; Sanders, B(2007). SocialInnovation-WhatIt Is, WhyItMattersand How It Can Be Accelerated; BasingstokePress, 2007, London.
- Phills, Jr., J. A., Deiglmeier, K; Miller, D. T. (2008). RediscoveringSocialInnovation; Stanford SocialInnovationReview, Fall 2008, California.
- Halaç, S; Eren, D; Bulut, H Ç (2014). Sosyal Yenilikçilik: Bir Ölçek Geliştirme Çalışması; H.Ü. İktisadi ve İdari Bilimler Fakültesi Dergisi, Cilt: 32, Sayı:1, Şanlıurfa.
- Özdemir, F; Ar, İ M (2015). Sosyal Yenilikçilik Üzerine Bir Alan Araştırması; Girişimcilik ve İnovasyon Yönetimi Dergisi, Cilt:4, Sayı:1, Haziran, 2015.
- Tatar, Ş B; Arslan, F. M (2017). Sosyal İnovasyon Kavramı: Bir Literatür Taraması; International Journal of Academic Value Studies, Vol:3, Issue:12, p.321-338.
- Topsakal, Y; Yüzbaşıoğlu, N (2017). Sosyal İnovasyon Kavramsal Model Önerisi; Uluslararası Yönetim İktisat ve İşletme Dergisi, Cilt:13, Sayı:3.

6

COMMUNICATION IN ORGANIZATION

Dr. Süreyya Ece¹

Introduction

Individuals, as a social being, need to communicate with their external environment. When a baby is born, he/she trying to communicate with the outside environment by crying, it begins to communicate verbally after learning to speak. An individual who does not have the ability to speak or loses this ability tries to communicate with those around him with the sign language. Therefore, it can be said that the communication process starts with the birth of human being and continues until the end of life.

Communication is a system that forms the basis of society, a tool that ensures the regular functioning of the organizational and administrative structure, and a technique that displays and affects individual behaviors, is a necessary art for a social and social harmony in terms of social processes. (Tutar, 2009: 39). The communication, derived from the Latin word “communis” and is used as “communication” in the most of western languages. In short, communication is the process of making commonalities between individuals (Mısırlı, 2008: 1).

Behind the success of human beings in social relations has the ability to communicate. This ability gave human beings the ability to think abstractly, transform a primitive life into a more civilized life. Communication, which is an information sharing process, is the basic means of sustaining individual, social and business life as well as being able to express and accept oneself. Communication can also be defined as transmission a message from the source to the receiver. The concept of the message here expresses all kinds of stimuli such as knowledge, thought, meaning, feeling, belief and attitude (Tutar, 2009: 39).

The concept of communication is defined as the sociological process of social interaction, which enables the exchange of thoughts and emotions through individuals, social clusters, inter-communal words, hands, arms movement, writing, images, etc. (Demiray, 2009: 7). Communication is a set of interactions that connects people from the beginning of human history up to now and from now on forever, and in a social group, which enables them to agree in balance and harmony. Organizational communication can be defined as the process of connecting the systems of the organization and ensuring the harmony between them. Organizational communication is similar to blood circulation in living organisms. If there is a problem in organizational communication, it is inevitable to experience negativities as a result of the problems observed in the circulatory systems (Mısırlı, 2008: 1-15). Without communication, it cannot being conveyed to the employees that which job should done by who and how the job should be done. Employees also cannot be motivated and directed. So it can be said that without communication the organization cannot exist (Woolcott & Unwin, 1983: 264).

Organizations benefit from organizational communication in order to ensure quality production in a fast and effective way, to ensure participation, morale and motivation. Employees need to communicate effectively at every stage of the process of service or production of goods. Any interruption or failure in communication may cause major problems. As a result, direct financial losses may occur. Effective communication leads to the right

¹ Şırnak University

structure of the business, consequently to the reduction of costs and profit. The harmony between employees and interoperability requires the employees who are equipped with effective communication skills. It is not expected to have an efficient work place in the enterprises where there is no sufficient communication skills (Mısırlı, 2008: 15).

The absence, lack or insufficiency of communication causes uncertainty in the organizational environment. Uncertainty leads to stress, job dissatisfaction, distrust towards the organization, low level of organizational commitment, decrease in productivity, absenteeism and increase in intention to leave the work. Lack of communication leads to negative attitudes and behavioral consequences. On the opposite of this, the provision of communication gives the possibility of dealing with uncertainty. When the communication channel between the employees and the managers is open and the communication takes place at a desired level by the parties then the job satisfaction of the employees would increase (Yüksel, 2005: 296).

Leaders and managers have various roles such as decision making, change and becoming information center, and determining policies. It is stated that the success of these roles will be determined by the communication effectiveness of the leader. Because the leaders and subordinates understand each other and exchange ideas and information is always through communication. Leaders need to interpret the environment and relate to the public, stakeholders, governmental and private institutions, and the need to upgrade their performance, which requires them to communicate with their subordinates, and thus communication can be a tool to integrate the organization's priorities and values (Uysal, 2003: 139).

Communication takes an indispensable role in the effectiveness of human resources in organizations, in influencing the behavior and attitudes of employees, in the satisfaction of the organization and the job, in the motivation, in the organizational commitment, in the process of organizational change (Sabuncuoğlu & Gümüş, 2008: 85). The importance of communication has led researchers to work on communication in firms. But before that, it is useful to examine the history of communication.

1. The History of Communication

1.1. The Pioneers of Communication Science

The origin of research related to communication goes back to the earliest years of human history. But the notion of communication is produced by Charles Cooley, Herbert Mead and John Dewey. These researchers have played a crucial role not only in the field of communication studies, but also in the development of American social sciences in the 1910s and 1940s (Lazar, 2009: 15).

In the past, people tried to tell people what they wanted to tell with symbols. They used to brought the symbols side by side and try to communicate to the other people. Then they recognized the human voice and learned to imitate the sounds in nature and to use the limbs against nature. Human being learned to speak later. After that communication between people began to develop rapidly in parallel. The pictures that have become more and more symbolized are now replaced by the written language (Düzenli & Kavuran, 2004).

Studies on communication have evolved to address political, military and economic needs in the West, especially in the US. Therefore, this development had a rich diversity. In this diversity, communication research has many interests such as self-communication, interpersonal, group, family, organizational, corporate, marketing, mass communication, international, cultural- intercultural communication and political communication (Erdoğan, 2009).

Researchers, who emphasize interpersonal relationships, descriptions, social interactions, propose a scientific method. These researchers' studies on the science of communication have found opportunity to benefit from the yields of the sociological practices. The integration of applied and theoretical research has provided a useful basis for the future of communication science. The researchers did not limit the communication to only transmission, but they understood the continuity as a symbolic process in which culture was built. As a result, according to them, communication manifests itself in politics, customs, rules, art and architecture. In their understanding, communication has a central place in public life and is a purely private speaker (Lazar, 2009: 16).

Social psychologist Mead stated that the most important aspect of the social organizations formed by the people is the communication principle that enables the rapprochement with others. This view put forward by Mead is stated that the interpersonal relationship and interaction is not only based on exchange of information and thought, but also includes superior objectives such as better understanding, solidarity and cooperation through the exploration of common valuation points (Sabuncuoğlu & Tüz, 2001: 98).

Researchers focus on reflection and communication in communicative action. It is mentioned that the capacity of the individual to introduce himself / herself according to the point of view of others. During this internal presentation, the individual presents himself / herself rather than being exposed to external formations. According to Mead, in the complex society, there is the capacity to enter into the field of view of others, who have the harmony attached to it, and thought is essentially social. So the thought is communicating with others and evolving through it (Lazar, 2009: 18).

1.2. Contributors to Communication Science

Mathematician-sociologist Paul Felix Lazarsfeld, social psychologist Lewin, experimental psychologist Hovland and political scientist Harold Lasswell, with their research in communication science have created a framework whose validity has not disappeared for years. They had based their studies on social psychology and theoretical mathematics (Lazar, 2009: 19). Lewin was primarily interested in communication models and the problems related to group communication. Other words he had dealt with the dynamic problems of interaction, communication and personality. He has realized that the groups are existing entity thanks to its connections and is always ambiguity and arise from mutual effects. His works is not just about bringing new elements into communication, at the same time; his work also shows a strong stimulus service for future works (Lazar, 2009: 20).

1.3. Communication Science in Today At the beginning of the 1960s, although considerable investigations of communication emerged, a serious uncertainty prevailed across all levels of communication. This uncertainty clarified the level of content in the methods followed. It was felt the need for a more complete understanding of the communication between researchers. The behavioral approach was gradually withdrawn, making room for historical and cultural research. Together with the presentations on the need for theoretical content, it is seen that the change studies and the analyzes are beginning to close the gap in the past. In order to meet this new urgent need, universities have begun to present scientific journals to the public, where they have the opportunity to demonstrate the contributions and knowledge of researchers all over the world through more and more communication programs (Lazar, 2009: 29).

Nowadays, methods of teaching communication are being explored how to make more complex, globalized and multidisciplinary communication compatible with their realities. With the economic development in almost every part of the world, communicators are confronting more diversified messages. In this environment, individuals are increasingly interacting directly and indirectly with interconnected global networks. This means that messages can pass through multiple translations through the languages of different nations. To communicate effectively in such an environment, communicators need to learn how to use new technologies and interact with different competing positions in different languages, cultures and environments (Du-Babcock, 2006: 255).

Today's business circles are changing. Instead of individual offices and booths, companies are encouraged to open offices with flexible working corners, shared conference rooms and space-saving boomerang shaped tables. Nowadays, with the help of mobile technologies and developments in communication, many employees can do their job without being in the office for hours (Guffey, Rhodes, & Rogin, 2006: 6). New information technologies have the potential to push forward in open communication. All-in-one terminals allow any employee to reach the latest information on performance and objectives and to be informed as well as an administrator (Halis, 2000: 222).

2. Communication and Organization Theories

Organizational theorists have focused on how the organizational structure of the organization affects the communication process and treats communication as a dependent variable related to the structure of the organization. In contrast, communication researchers dealt with communication as an independent variable and tried to understand how models are seen to create interaction and shape the organizational structure. According to the analysis of organizational structure and communication, organizational structure shapes organizational communication (Durgun, 2006: 124). Each organization theory interpreted the communication between employees and managers in a different way according to the principles of the theory, and stated how the communication within the organization should be based on the organizational theory.

In general, five different communication models can be applied in organizations such as central model, Y model, chain model, circular model and open model. The principles of organizational theory adopted by an institution have an impact on the communication model to be implemented in the institution. Therefore, organizational theories should be examined within the scope of communication.

2.1. Classical Organization Theories

Classical organization theory sees the organization as a machine and the individuals working in the organization as the gear of that machine. As a result of this point of view, little attention has been paid to the individual and his / her behaviors in organizations and, naturally, the view on communication has been very limited and management centered. Organizations are seen as a means of achieving the purpose of increasing productivity in line with the demands of the period, and therefore communication is seen as an element that serves the purposes of management (Yağmurlu, 2004: 37).

The rational, economic human model of classical organization theory remains an important obstacle to effective communication. In the formal organization structure, which is another principle that classical theorists have emphasized, organizational relations are handled in a hierarchical manner and non-formal relations and non-formal communication are ignored. However, the fact that human being is not able to meet the communication needs

leads them to natural structures, and this case shows that both formal (formal) and informal (informal) communication must exist at the same time in organizational communication (Tutar, 2009: 30).

Frederick W. Taylor, the founder of the scientific management process, stated that employees should be trained on a daily basis and should receive the most sincere help from their superiors. According to him, a sincere, close and collaborative communication between the management and the employees will cause failure (Sabuncuoğlu & Gümüş, 2008: 87).

The principle of command unity of Henri Fayol, representative of the management process approach, includes a suggestion for communication. According to this principle, it is necessary to clearly determine who will take orders from the organization in order for the organizations to be effective, and the messages must move from the superiors to the subordinates as defined in the formal organization chart. Hierarchical structure emphasizes the direct vertical and horizontal message flow (Sabuncuoğlu & Gümüş, 2008: 88). Fayol revealed the communication of the employees in the same hierarchy with the concept of scaffolding (gangplank). He stated that unnecessary separation from the authority chain was a mistake, but it was a bigger mistake to stick to the chain if the following works deteriorated (Yağmurlu, 2004: 38). According to this, the communication between employees and managers is likened to the chain and it is stated that an error or a break in a ring of the chain will affect the whole chain. Fayol's chain is a chain of message transport in vertical directions, and if there is a need for fast message exchange and this will serve general interests, then colleagues need to communicate directly with team support without adhering to this hierarchical chain. This type of direct relationship, known as the Fayol bridge, can be defined as the direct relationship between subordinates in the lower level (Sabuncuoğlu & Gümüş, 2008: 88).

Within the framework of formal communication, Chester Barnard emphasizes the importance of bottom-up communication. Barnard argued that communication has a central position in examination of authority concept in the organization. Authority is the ordering nature of a communication and it is essential to be accepted by subordinates. When the communication is accepted by the receiver, the communication, and therefore the recipient's authority becomes recognized (Polatoğlu, 1984: 70). According to Barnard, the organization is a system consisting of physical, biological, psychological and social elements, and the organization must have a general purpose, the desire to serve and the ability to communicate with other people in achieving the objectives. Fayol's concept of in-group unity (*esprit de corps*) is based on the belief that the strongest organizations represent unity of purpose (Sabuncuoğlu & Gümüş, 2008: 88). Fayol emphasized the importance of written communication and at the same time expressed the need for oral communication (Yağmurlu, 2004: 38). Because the differences and misunderstanding that the dialogue may clarify may increase further in the written ones, Fayol argues that when an order is required to be clarified, it should be given orally, not in writing, in order to make it faster and simpler (Sabuncuoğlu & Gümüş, 2008: 88).

According to the bureaucracy approach created by Max Weber, communication within the bureaucratic system should be formal and follow the chain of command. Weber argues that, unlike Taylor, orders should be given in writing, not verbally (Sabuncuoğlu & Gümüş, 2008: 88).

It is suggested that communication with classical organizational theories, unqualified and semi-qualified personnel should be in the form of order-instruction only through vertical channels. This shows that communication is one-way and top-down in classical organizational theories (Tutar, 2009: 30). It can be said that central communication

model is applied in enterprises that adopt classical organization theories. In this model, number of communication channels is low, leadership satisfaction is high and group satisfaction is low(Şimşek vd., 2014:108).

The channels of communication predicted by classical theory are inadequate in new situations and often lead to slow and late decisions. In the same way, strict hierarchy weakens inter-departmental communication and it also prevents seeing and evaluation of events as a whole (Yağmurlu, 2004: 38).

When the deficiencies of the classical organization theory on various subjects, especially on communication, became apparent, neo-classical organization theories were created to complete these deficiencies.

2.2. Neo-Classical Organization Theories

This theory is also known as the school of human behavior. It has been the subject of study of the human element, which the classical approach neglected. This approach is not based on organizational structure, work design and measurement, but on individuals' interactions, motivations and effects on organizational events(Sabuncuoğlu & Gümüş, 2008: 89).

Neo-classical organization theorists have adopted the principles of efficacy, efficiency and work order of classical organization theory, but have separated from the classics with their approach to communication. They also examined the relationship between natural communication and efficiency, which the classics did not focus on (Tutar, 2009: 32).

Mary Parker Follett, a researcher in the scope of this theory, talked about the need to care about the wishes and motivations of individuals and groups in effective organizations, far ahead of the theorists in her time. Follett' 4 principles are below:

- Coordination as direct contact / relationship of responsible person,
- Coordination in early stages,
- Coordination as the interrelation of all features in a situation,
- Coordination as an ongoing / continuous process(Sabuncuoğlu & Gümüş, 2008: 89).

The Hawthorne experiments led to questioning the validity of classical theory in terms of results and laying the foundations of the school of human relations. The experiments were conducted between 1924 and 1933 at the western Electric Hawthorne plant in Illinois. Basically, it has begun with the study of physical conditions that increase organizational effectiveness to maximize productivity (Yağmurlu, 2004: 39). In other words, Hawthorne researches have actually started with a similar approach to classical management. The aim of the research was to determine the most appropriate physical working conditions to increase the productivity of employees. However, during the research, it was realized that non-physical situations such as communication of the person who responsible for the employees with the employees also positively affected the performance of the employees, and then the research focused on social conditions.

In Hawthorne's experiments, employees were allowed to establish a natural way of communicating in their organizations. Through the non-formal communication established during these experiments, employees shared their feelings and thoughts about their organizations. In these experiments, which are one of the first examples of

brainstorming, employees have the opportunity to communicate their thoughts directly to their superiors thanks to the face-to-face communication (Tutar, 2009: 32).

As a result of the experiments, important results have been reached in terms of organizational communication. The first one is that interpersonal communication plays a decisive role in the behavior of individuals. Light and relay assembly tests have demonstrated how effective communication is on production level. The second result is showed that interviews and bottom-up communication and feedback has a positive effect on job satisfaction and productivity (Yağmurlu, 2004: 39).

Likert, in his classic work titled *New Patterns of Management* (1961), revealed his attitude towards communication by trying to determine the differences between management of successful and less successful organizations. According to him, most managers will see downward messages as the biggest communication problem. But the gaps in upward communication can be more serious than downward messages. His participatory management theory is about what happens in groups. According to him, groups with high commitment and high attractiveness communicate more than groups with low commitment and low attractiveness. The groups with high commitment and high attractiveness are also more prone to communicate. It has been suggested that effective group members tend to communicate more valid and accurately than individuals who follow the hierarchical chain (Sabuncuoğlu & Gümüş, 2008: 90).

Neo-Classical organization theorists had emphasized that horizontal communication should be established among the people who are the same level in the organization. It had been developed that bottom-up communication is necessary to convey the thoughts, problems, etc. of the members of the organization to their superiors and for this purpose applications such as wish and complaint boxes, using of special committees had been developed. But neo-classical organization theory had been criticized over the non-formal communication between small and non-formal groups and the formal organization and for neglecting formal communication here. In this kind of organization, only the human element is emphasized, and their economic and technical structure which operates according to rational rules is not emphasized (Tutar, 2009: 32). It can be said that circular communication model is applied in enterprises that adopt Neo-Classical organization theory. In this model, group members are more likely to communicate with each other than other communication models (Şimşek vd., 2014).

One of the common points of classical and neo-classical organization theories is that they only focus on communication within the organization. It hadn't mentioned that the organization is operating in an environment and the organization needs to communicate with the external environment. Another common point is to try to develop a valid communication model under all circumstances. However, a communication model that enables successful results in an organization may not be successful in another organization. Likewise, a successful communication model in an organization can cause problems after a certain time. The deficiencies in this matter have been the focus of modern organizational theories.

2.3. Modern Organizational Theories

Neo-Classical organization theory was replaced by modern organizational theory from World War II. These theories are the theory of the system consisting of decision making, contingency approach and the application of general system theory to social sciences (Tutar, 2009: 34). Decision-making, contingency and system approaches, which are modern organizational theories, attach great importance to the phenomenon of communication. It was emphasized

the importance of vertical, horizontal and cross communication in the organization and revealed the importance of communication between the organization and its environment (Yağmurlu, 2004: 48). The most important feature that distinguishes this theory from other theories is emphasized to not only the communication within the organization, but also the communication of the organization with the external environment.

In Simon's decision-making approach, the decision-making process has been seen as the most fundamental act of the organization, and rational decision-making is emphasized. Simon explained the subject of communication by associating it with organizational decision making. According to him, organizational communication is a two-way process. Communication is considered to be the information flow and it is stated that most of the information obtained about the facts consists not only of the perception of the person but also the reports communicated to the person by social communication and others. These reports are also transmitted and filtered. The limited flow of information in this way also adversely affects decisions (Yağmurlu, 2004: 48).

The timely communication of decisions to the concerned parties is an important issue. Some decisions can have complex, organizational or personal consequences. Delivering these decisions to people may require personal and political strategies. On the other hand, reporting some decisions may create hostilities. The method of reporting such decisions and the language to be used must be carefully selected (Can & Güney, 2007: 301).

Simon stated that the communication process consists of 3 steps. Accordingly, communication begins from one person, reaches the receiver from the source of the message, and communication affects the receiver (Yağmurlu, 2004: 48).

While other organizational theories except contingency approach emphasized the best organizational structure and the universal rules to be followed, the contingency approach focused on the idea that there will be no best organizational structure and the best depends on the conditions and time. According to the contingency approach, depending on the situation and conditions, it should be selected which formally or non-formal communication is effective. What is important is that the communication is guiding and convincing (Tutar, 2009: 34). The direction of the message, the load of the message, the channels, the networks, and the distortion of the message are case-specific and are subject to certain conditions. Therefore, a flexible communication system is required, which can continuously adapt to changing conditions (Sabuncuoğlu & Gümüş, 2008: 93). If non-formal communication in organizations increases communication effectiveness and does not disrupt formal communication channels, it will be inevitable to benefit from non-formal communication (Tutar, 2009: 35).

The contingency approach emphasizes the concept of effective organization and states that this will be possible through integration and differentiation. This approach paid attention to organizational communication in terms of ensuring integration in the organization. It is not possible to have this integration without effective communication with the environment. Leavitt stated that communication in organizations may vary according to the needs of the organization, and that the flow of communication may vary according to different needs and the subject being decided (Yağmurlu, 2004: 49).

Finally, the system approach, which is another organizational theory, considers communication as a process that connects the elements of the organization as a system. It was stated that the formal and non-formal information flow between the managers and the employees would be sufficient to provide the order (Tutar, 2009: 34). In the system theory, this situation is not only evaluated within the organization, but also emphasized its importance

in terms of organization and environment relations. The perception of communication as an organizational need is evaluated in terms of the quality of communication within the organization. Unlimited communication is not recommended because it is stated that unlimited communication will cause noise and inefficiency. Briefly, in the system approach, communication approach in terms of organizational effectiveness and control is also discussed with other approaches (Yağmurlu, 2004: 49). However, according to the concept of entropy, which is one of the important concepts of the system approach, it is not easy to maintain organizational structure and functioning in closed systems. (Tutar, 2009: 34).

The system approach assumes that it will eliminate the entropy caused by the closed organizational structure by negative entropy. One of the most important means of eliminating entropy with negative entropy is the effective communication between the organization and its internal and external environment. Because the open systems do not work only with the flow of information or only with intra-organizational communication, the open systems can handle the negative effects of closed systems with a multidimensional flow of information. In other words, according to the system approach, it is stated that the disruptions and irregularities caused by the effects of internal and external factors can be eliminated by the flow of information received from the internal and external environment. This information transfer can only take place through effective communication with the open communication channels (Tutar, 2009: 35).

While the Mechanical organization structures which based on closed system understanding being successful on closed and limited relationship and communication, in organizations with rapid changes based on open system understanding, the flexible and versatile relationship and communication that can meet the needs of employees can be more useful (Tutar, 2009: 35).

In general, the common feature of modern organizational theories is that communication has the function of supervision and coordination that connects the elements of the system. Human being is the basic element of the organization and can interact with the other members of the organization, so sometimes there may be conflicts between the aims of the organization and the aims of the employees. The elimination of these conflicts and non-functional conflict requires a balance between the aims of the organization and the needs of the human and this is possible through communication (Tutar, 2009: 35).

The communication model to be applied in an organization should be selected considering the type of organization, the area where it operates, the characteristics of employees, etc. The communication model can be changed according to the changes in the environment. Therefore, as there is not always a form of communication that can be valid in every organization, managers should be open to change in this regard.

References

- Can, H., & Güney, S. (2007). *Genel İşletme*. İstanbul: Arıkan Yayıncılık.
- Demiray, U. (2009). *Genel İletişim*. Ankara: Pegem Akademi yay.
- Du-Babcock, B. (2006). Teaching Business Communication. *Journal of Business Communication*, 43 (3), 253-264.
- Durgun, S. (2006). Örgüt Kültürü ve Örgütsel İletişim. *Yüzüncü Yıl Üniversitesi Eğitim Fakültesi Dergisi*, 3(2), 112-132.

- Düzenli, Ş., & Kavuran, T. (2004). Görsel İletişim Aracı Olan Pulun Tarihsel Gelişimi ve Grafik Ürün Olarak Önemi. *Cumhuriyet Üniversitesi Sosyal Bilimler Dergisi*, 28 (2), 187-204.
- Erdoğan, İ. (2009). İletişim Araştırmalarının Geleceği. Ankara Gazeteciler Cemiyeti Yayınları, 780-782.
- Guffey, M. E., Rhodes, K., & Rogin, P. (2006). *Business Communication*. Toronto: Nelson Education Ltd.
- Halis, M. (2000). Örgütsel İletişim ve İletişim Tatminine İlişkin Bir Araştırma. *İktisadi ve İdari Bilimler Dergisi*, 14 (1), 217-230.
- Lazar, J. (2009). *İletişim Bilimi*. Ankara: Vadi Yayınları.
- Mısırlı, İ. (2008). *Genel ve Teknik İletişim*. Ankara: Detay Yayıncılık.
- Polatoğlu, A. (1984). Örgüt Kuramları ve İletişim. *Amme İdaresi Dergisi*, 17 (4), 62-76.
- Sabuncuoğlu, Z., & Gümüş, M. (2008). *Örgütlerde İletişim*. İstanbul: Arıkan Yayıncılık.
- Sabuncuoğlu, Z., & Tüz, M. (2001). *Örgütsel Psikoloji*. Bursa: Ezgi Kitabevi.
- Şimşek, Ş., Çelik, A. & Akgemci, T. (2014). *Davranış Bilimleri*. Konya: Eğitim Yayınevi.
- Tutar, H. (2009). *Örgütsel İletişim*. Ankara: Seçkin Yayıncılık.
- Uysal, G. (2003). Rol Farklılaşmasının İletişime Etkisi ve Johari Modeli. *Cumhuriyet Üniversitesi, İİBF Dergisi*, 4 (1), 137-148.
- Woolcott, L. A., & Unwin, W. R. (1983). *Mastering Business Communication*. Hampshire: The Macmillan Press.
- Yağmurlu, A. (2004). Örgüt Kuramları ve İletişim. *Amme İdaresi Dergisi*, 31-55.
- Yüksel, İ. (2005). İletişimin İş Tatmini Üzerindeki Etkileri: Bir İşletmede Yapılan Görgül Çalışma. *Doğuş Üniversitesi Dergisi*, 291-306.

7

THE INTERACTION OF TECHNO-STRESS WORK OVERLOAD EXCESSIVENESS IN PILOTS AND THE ROLE OF PERCEIVED ORGANIZATIONAL SUPPORT IN THIS PROCESS

Dr. Gökdeniz Kalkın¹, Dr. Rukiye Can Yalçın

Introduction

Though stress is considered as an individual problem, it has also become a warning sign to organizations. It is seen that job stress has a great importance worldwide in terms of the health of both employees and organizations. In organizations, job stressors are thought as obstacles. The factors causing stress basically include facts such as inadequate work organization, weak leadership between technical and environmental design, or imbalance the rewards earned and labor spent on the job. Stress at workplace affects employees negatively in terms of fatigue, exhaustion, motivation, and therefore productivity (WHO, 2004; Harkness et al., 2005; ITF, 2009).

The aerospace industry, where thousands of people are dependent on the employees for their own safety and life, is among the top organizations to experience intense individual and organizational stress. Those working in complex work environments, such as cockpit or air traffic control tower, are faced with heavy workload and stressful situations (ITF, 2009; Mandrick et al., 2016). In addition to unpredictable conditions such as particularly difficult meteorological conditions during the flight, multi-system errors or cockpit crew incapacitation, pilots have to control the monitors effectively and constantly (Benitez et al., 2018). Under one of the busiest work conditions, pilots constantly struggles to cope with these technological equipment they have to control and monitor. Such struggle results in stress and furthermore they are forced to work harder to cope with the increasing work demands (Koo & Wati, 2011; Benitez et al., 2018). It is argued that heavy workload increases the likelihood of accidents by affecting the pilots' performance negatively (Li et al., 2015). According to the safety reports of International Civil Aviation Organization (ICAO) there have been total 113 accidents in 2016. Categorization of accidents reveals that (Figure 1) 18% of accidents are caused by air crew injury or deterioration of his/her health preventing them from doing his/her duty (MED) and 8% by loss of control during flight (LOC-in-flight) (ICAO, 2017).

Accident Categories	
CFIT	Controlled Flight into Terrain
GS	Ground Safety
LOC-I	Loss of Control in-Flight
MED	Injuries to and/or Incapacitation of Persons
OD	Operational Damage
OTH	Other
RS	Runway Safety
UNK	Unknow

¹ Muğla Sıtkı Koçman University

THE INTERACTION OF TECHNO-STRESS WORK OVERLOAD EXCESSIVENESS IN PILOTS AND THE ROLE OF PERCEIVED ORGANIZATIONAL SUPPORT IN THIS PROCESS

Dr. Gökdeniz Kalkın, Dr. Rukiye Can Yalçın

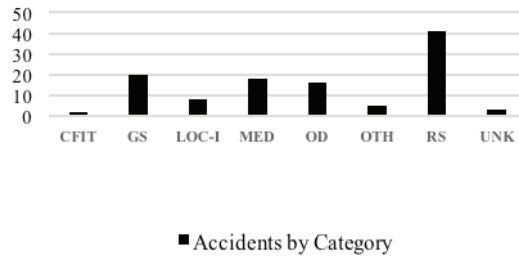


Figure 1. Accidents by Category

The imbalance between effort and reward is another factor that causes stress. There is a fundamental principle of equality in all societies: if you spend your labor in favor of a person or community, you also expect a equivalent return by them. This situation is similar in the workplace. The imbalance between labor and reward creates stress for employees who spends much effort but win less reward in turn. The reward consists of the following components: salary or wage, promotion opportunities and intangible awards and supports such as respect, appreciation, justice and work security provided by superiors or managers (Rhodes & Eisenberger, 2002; ITF, 2009). Particularly, these intangible supports that include elements of perceived organizational support can be said to have significant buffering effect to reduce work stress by providing psychological support to employees who work in organizations with intense stress.

Accidents that occurred in aviation sector during the period of aeronautical development were mostly due to technical failures. With the development of the technology, these technical errors have been reduced and replaced by the accidents by human factor. The focus of the human factors causing the accident was removed from the exploration of skill shortages. And other factors that lead to accidents, such as decision making, attitudes, supervisory factors and organizational climate, which push organizational factors and psychological pioneers into research. (Li et al.,2008). In this respect, it is considered that the pilots are one of the most critical components of the aviation industry. If the necessary precautions are taken to reduce the workload and stress level of pilots through exploring the reasons, the possible human related fatal errors are thought to be reduced. In this study, the effect of technostress perceived by aviation pilots who work in a techno-intensed industry, on workload and the mediating role of percieved organizational support in this association have been investigated.

Techno-stress

Regarded as one of the most important problems that people face in their lives today, stress has not only disrupted the physical and psychological structures of individuals, but has now become one of the greatest troubles of businesses and governments (Dumont & Plancherel, 2001). Organizational factors and complexity, overload and uncertainty due to the rapid development in technology often creates pressure on the individuals and the pressure felt is transformed into a stress (Brod, 1984; Tarafdar et al., 2007; Alam, 2016).

The reaction to the emergence of personal computers has led to the emergence of a new jargon. Appeared as “computer phobia”, “cyberphobia”, “technophobia” and “technostress”, these terms characterize the resistance to change in the workplace and emphasize how crucial the understanding and planning of human perceptions

towards new technology is (Appelbaum, 1990). There are several definitions explaining technostress in literature. While Brod (1984) describes technostress as a disease that caused by inability to adopt to computer technology, another definition refers to the modern times problem of adaptation, based on the experience that the individual can not adapt to or can not cope with information and communication technologies (Towell & Lauer, 2001; Tarafdar et al., 2007).

Regardless of job descriptions, since technology is indispensable part of worklife in every workplace employees face with technostress (Alam, 2016). Techno-stress can arise from a number of causes and can cause various effects on both individuals and organizations (Suharti & Susanto, 2014). In fact, technostress is a humanitarian problem resulting from the interaction of individuals with machines and uses the sociotechnical approach (West, 2007; Tarafdar et al., 2007). According to the sociotechnical approach; organizations are two dimensional social and technical systems. The first dimension is the social aspects related to the attitudes, values, roles individuals take, rewards systems, and authority structures. The second dimension is; technical or task-related aspects, and deals with the actual work that individuals perform, the processes involved, and the technology (Tarafdar et al., 2007). The existence of information and computer technology in the technical system changes the roles of individuals. The interrelated nature of organizational tasks leads to change in the tasks of individuals, wider changes in organizational structure and redefining the coordination and communication mechanisms and the degree of centralization (Barley, 1990). Along with this, the roles of individuals who use computer technologies change in the organization. This change can be said to create stress on the individual.

As techno-stress causes dissatisfaction, fatigue, anxiety and work overload, it affects the adaptation of individuals to time, forms of communication and interpersonal relationships in a negative way (Brod, 1984; Tarafdar et al., 2007). In addition, Technostress leads to higher workload, role conflict, fatigue and burnout, and lower job satisfaction, productivity and performance (Weiss & Young, 2007; Wang et al., 2008; Tarafdar et al., 2011). As a result of a research on 138 employees working in the Department of Production and Engineering of a multinational company Susan and Susanto (2014) have found that workload and level of competence of automation technology has a significant positive effect on technostress. Furthermore the research shows that there is a significant relationship between workload and employee performance, and technostress has a mediating role in this relationship.

Work overload

Working itself is never a problem or anxiety. However, the work overload on the employee or the work demands that exceed the human limits have always been a problem for both the employees and the employers (Altaf & Awan, 2011). Rapidly advancing technological developments in the industrial world have led to changes in the working system within the organization in order to survive and sustain competition. This fact has transformed into a pressure on every individual working in the organization in order to consistently produce better performance both quantitatively and qualitatively (Suharti & Susanto, 2014).

The work overload is, in general, a result of organizational pressure. These organizational pressures include factors such as long and hard working hours, overtime, inadequacy of vacations or breaks, unreasonable expectation of performance, role and inter personal conflicts, increases in the volume of production, and in the number of types of goods to be produced and the use of high technology production equipments (Huey & Wickens, 1993; Weaver, 2015; Suharti & Susanto, 2014). On the other hand; social exchange theorists state that resources received from others are more valued if they are based on discretionary choice rather than circumstances beyond the donor's

control. Such voluntary aid is welcomed as an indication that the donor genuinely values and respects the recipient (Rhoades & Eisenberger, 2002).

Computer-based work environments demand continuous attention since they provide a multidimensional stream of information. Such conditions cause heavy workload on employees since they have the potential to overcome the employees' limited capacity of knowledge acquisition and analysis (Gevins & Smith, 2003). Similarly, the higher performance demands due to the high technology equipments and the complexity of technical problems result in the increase of work overload for employees using these technologies (Suharti & Susanto, 2014). Increasing workload not only leads primarily to health problems such as stress, frustration, anxiety and depression but also is considered as a crucial factor to affect performance in a negative way (Xie & Salvendy, 2000; Mazloun et al., 2008; Karavidas et al., 2010; Altaf & Awan, 2011; Didomenico, 2011; Lin et al., 2012; Mansikka et al., 2016; Fallahi et al., 2016).

In particular, high pressure during the flight, responsibility they take and shift system conditions increase the work load and time pressure of airline employees that is also the sample of our research. This is why the chronic fatigue that they suffer from, as well as the role conflict due to their work in different shifts with different groups, increases their stress (Hickman & Mehrer, 2001; Tourgny et al., 2010). In addition, since the excess workload is related to many communication problems such as confusion in radio communication, confusion and errors in communication and speech problems it is among the critical factors affecting the flight safety (Lin et al., 2012). The worst accident of aviation history was in 1977 in Spain in which Pan Am Boeing 747-100 and KLM Boeing 747-200 crashed each other on the runway and resulted in the death of 583 people at Tenerife Airport (Homan, 2002; McLean & Monro, 2004). This case demonstrates that a better understanding of the effect of stress on an individual's performance is important in the industries that are critical safety, particularly aviation, emergency medicine and the military (Vine et al., 2015).

A survey conducted by Tourgny et al. (2010) in China on 485 airline employees reveals that workload and role conflicts have a significant and positive effect on stress. They further note that both the shift work hours and the work overload due to the out-of-work activities significantly increases the effect of stress. In the context of above mentioned researches and theories, this study suggests that there may be a relationship between pilots' perceptions of work overload and their technostress levels. In this respect, the following research hypothesis is proposed. *Hypothesis 1:* There is a positively significant relationship between pilots' work overload perception and technostress levels.

Perceived organizational support

For many years, organizational theorists have implicitly stated that employees are employed in exchange for effort and loyalty in order to gain material and socio-emotional benefits. The social exchange theory emphasizes the importance of understanding the motivation of employees and its relation to the achievement of organizational goals and underlines mutual trust. Such approaches to organizational behavior include motivations of employees to engage in specific activities in reciprocal obligations between employees and employers (Blau, 1964; Aselage & Eisenberger, 2003).

Organizational support, defined as valuing employees, dealing with their peace and prosperity, and making them feel it, causes employees to have a positive opinion of the organization (Eisenberger et al., 1986). Perceived organizational support (POS) is employees' general perception concerning the extent to which the organization

values their contributions and cares about their well-being (Eisenberger et al., 1986; Eisenberger et al., 1997). In other words, it is employees' trust in organizations and their feelings about organizations' assistance in all kinds of troubles that may arise. The organizational support perceived by the employees is somehow a guarantee for them and enables the work to be done effectively in stressful situations (Georges et al., 1993). At the same time perceived organizational support will increase the effort-outcome expectancy of employee if he spends more effort to meet organizational goals (Eisenberger et al., 1986; Brown & Roloff, 2015).

In addition, perceived organizational support has a positive effect on job satisfaction and job performance and attitudes like positive mood through reducing psychomotoric reactions such as stress and tension due to stressors (Eisenberger et al., 1990; Beehr et al., 2010; Hur et al., 2013). Besides, organizational support mechanism reduces the technostress level (Salo et al., 2017). Wang and Shu (2008) conduct a study on 450 people, consisting of professional information technology experts and general users, and reveal that the technostress perceived by the employees is positively related to role conflict and role overload. They further state that while perceived organizational support has positive a mediating effect on the relationship between technostress and role conflict, it does not have a significant mediating role on the relationship will be negative when perceived organizational support is higher and perceived organizational support does not significantly moderate the relationship between technostress and role overload. However, the appropriate atmosphere and welfare mechanism being created within the organization significantly reduce the technostress and role stress of the employees. Another research conducted by Hur et al. (2013) on 256 flight personnel reveals that perceived organizational support has a positive effect on emotional labor and emotional exhaustion, and that perceived support is protective against stress and its adverse effect on employees.

Prolonged exposure to work overload is also strongly associated with physical and emotional exhaustion. However, perceived organizational support is an important resource to cope with both role overload and burnout as a result (Avanzi et al., 2018). Studies on the relation between workload and perceived organizational support reveal that perceived social support reduces the workload of teachers and both the stress and burnout perceptions of teachers about their students decrease as a result (Avanzi et al., 2018).

Based on the above mentioned studies, we think that the organizational support levels perceived by the pilots from their company and the directors they work with may play a buffering role between the work overload perception and technostress levels and thus it may have a mediating role in this relationship. In this context, the following research hypothesis is proposed. *Hypothesis 2*: Organizational support levels perceived by pilots play a mediating role in the relationship between work over load perception and technostress levels.

METHODOLOGY

Population and sample

Within the scope of the research, helicopter and aircraft pilots employed in different companies (ambulance aircraft and helicopter companies, companies providing fire fighting aircraft and helicopter services, aviation companies carrying private transportation) were selected according to general aviation rules. General aviation accidents are proportionally higher than airline accidents. The rate of accidents in general aviation is 6.49 in 100.000 hours (Martinussen & Hunter, 2010), even though air lines have an accident rate of 0.16 in 100.000 hours. It is believed that the stress load on pilots and other personnel carrying out general aviation flights where the uncertain and risky

THE INTERACTION OF TECHNO-STRESS WORK OVERLOAD EXCESSIVENESS IN PILOTS AND THE ROLE OF PERCEIVED ORGANIZATIONAL SUPPORT IN THIS PROCESS

Dr. Gökdeniz Kalkın, Dr. Rukiye Can Yalçın

nature of the flight can not be reduced much and the accident rate is 40 times higher than airline is considered to be higher.

Aeronautical operations are a field of activities that are highly standardized and subject to strict procedures. Pilots in cockpit has to constantly check highly complex technological devices in a certain order during flight. These devices occasionally update, and in case of failures pilots can become stressed. Technicians who carry out the maintenance and repair of aircrafts control the software, electronic and mechanical systems of high-tech aircraft at regular intervals. Maintenance and repair procedures may change from time to time according to the information that comes from the manufacturer or as a result of experience. Electronic systems are frequently revised and updated, requiring mechanical or electronic adaptations according to these updates. The work intensity of the employees in this sector is also quite high. Intense working hours and the support that pilots receive from their institutions also directly affect their business performance. Support provided by companies to pilots can also be seen as a buffer between stress and excess workload. In this context, because of the fact that technological stress is critical for the employees working in the aviation sector for the mentioned reasons, the sample was selected from this sector. As a result, according to the general aviation procedures and principles, in a survey based on data collected from 109 pilots working in the private sector in Ankara and Istanbul in Turkey. The demographic information of the research sample is presented in Table 1.

Table 1 Demographics of the sample

SAMPLE	AGE	GENDER	STATUS	EDUCATION	FLY YEARS
Pilots who perform duty according to general aviation procedures and principles N=109	Mean=31.82 (Std.D.=6.78)	99% Male (n=108) 1% Female (n=1)	21% First Plt. 79% Second Plt.	92% Bachelor degree 8% Graduate degree	Average: 8,54 years (SD= 6.58 Min=1 Max=23)

Research scales

In this, we use techno-stress scale developed by Tarafdar et al. (2007), modified and reduced into 14 items by Alam (2016) and adopted into Turkish by Türen et al. (2015). The 5-item scale developed by Imoisili (1985) and adapted by Alam (2016) was used to measure the work overload perception of pilots. This scale consists of a single dimension and the answer of the items follow the 5-point Likert type scale (1=Strong Disagree, 5=Strongly Agree). The adaptation of the scale to the Turkish is done by Erdem et al. (2015). To measure perceived organizational support level of employees, Eisenberger et al. (1986) developed a scale of 36 items, and the responses were used by Stassen and Ursel (2009). The 10-item scale is adapted to Turkish by Turunç and Çelik (2010) and the one-factor final version is used in this research.

FINDINGS

Explanatory and confirmatory factor analysis

Explanatory Factor Analysis (EFA) is conducted to examine the structural validity of the data collected for three scales. Before the analysis, KMO and Bartlett's tests are employed. Data are found to be appropriate (KMO>.60;

$p < .001$) for factor analysis (Tabachnick & Fidell, 2001: 589). Then, the factors in the analysis are examined using correlation analysis and it is found that the factors are uncorrelated. So that, for those three scales Component Matrix has been rotated using Varimax method, which is widely used in the literature, in order to obtain interpretive and significant factors. It is seen that the majority of factor loadings are greater than .50 and the subtraction of factor loadings loaded in more than one factor are greater than .1.

For ways of technostress scale; factor loadings, contributed to three factors (techno-workload, techno-uncertainty, techno-complexity like previous studies, have been ranged between .52 and .74. By the factors obtained, it is found that 67.47% of total variance is explained and the scale supports the structural validity. The results of factor analysis of perceived organizational support scale reveal that the factor loadings, in which the items are gathered under one factor, ranges between .56 and .82, as expected, and 61.22% of the total variance is explained and the scale supports the structural validity. For workload scale factor analysis shows that items are located under one factor and the factor loadings range between .61 and .77, and 64.53% of the total variance is explained and the scale supports the structural validity.

Structural Equation Model and Confirmatory Factor Analysis (CFA) were used to determine the validity of the scales used in the research. Examining the findings in Table 3, since $p_1 = .021$; $p_2 = .00$; $p_3 = .047$ $p = 0.05$ respectively in c2 trials of samples, it can be claimed that the models are significant at the 95% confidence interval and determined structures about the scales conducted on the samples are fit and acceptable due to the values obtained from fitness indices. The details of the CFA analyzes are presented in Table 2.

Table 2 Confirmatory factor analysis and fit index

SCALES	FIT INDEX							
	NFI	NNFI	GFI	CFI	AGFI	RMSAE	CIMN/SD	p
Technostress	0.88	0.96	0.89	0.96	0.84	0.06	1.408	0.021
Workload	0.99	0.99	0.99	0.99	0.97	0.01	0.389	0.000
POS	0.92	0.97	0.93	0.97	0.87	0.07	1.528	0.047

Reliability analysis

One of the most widely used methods for evaluating the reliability (internal consistency) of the scales is Cronbach's Alpha test, and it should be checked whether this coefficient is greater than 0.70 (Tabachnick & Fidell, 2001). In this context, when Cronbach's Alpha coefficients are examined, the internal consistencies of the three scales are calculated together with their sub-dimensions, and it is concluded that all of these scales are reliable together with the subscales of the scales. Details of the reliability analysis are shown in Table 3.

THE INTERACTION OF TECHNO-STRESS WORK OVERLOAD EXCESSIVENESS IN PILOTS AND THE ROLE OF PERCEIVED ORGANIZATIONAL SUPPORT IN THIS PROCESS

Dr. Gökdeniz Kalkın, Dr. Rukiye Can Yalçın

Table 3 Reliability analysis of scales and subfactors

Scales	Cronbach Alpha (α)	Results
Techno-stress	0.831	Reliable since $\alpha > 0.70$
Techno-workload	0.896	
Techno-uncertainty	0.865	
Techno-sophistication	0.701	
Workload	0.833	
(POS)	0.859	

Common method bias

In order to check if there is a common method bias in our data, we employ Harman's Single-Factor Test, Common Latent Factor and Common Marker Variable techniques, which are widely used in the literature (Podsakoff et al., 2003). We examine the unrotated factor solution of Harman's Single-Factor Test to determine the number of factors that are necessary to account for the variance in the variables. A single or one general factor, which represents the majority of the covariance (25.68%), does not emerge. Additionally, in Common Latent Factor and Common Marker Variable techniques, the common heuristic values (4.12% and 8.64% respectively) are less than the threshold value (50%). Namely, the results do not indicate substantial common method bias.

Correlation analysis

After analyzing the validity and reliability of the scales used in the research, we try to determine the relationships between the variables in this part of the study. In order to determine the relationships between the variables, correlation analysis was performed first. The summary of the correlation analysis is presented in Table 4.

Table 4 Correlation analysis between variables

Variables	Mean	SD	1	2	3	4	5	6
1. Techno-stress (total)	2.66	0.631	-	0.645**	0.529**	0.552**	0.568**	-0.285**
2. Techno-workload	2.59	1.000		-	0.621**	0.594**	0.448**	-0.301**
3. Techno-uncertainty	2.76	0.931			-	0.512**	0.268**	-0.108
4. Techno-sophistication	2.64	0.712				-	0.249**	-0.061
5. Workload	3.10	0.880					-	-0.521**
6. POS	2.79	0.773						-

When the findings in Table 4 were examined, it was determined that there was a strong and significant relationship with the technostress sub-dimensions. In addition, it is observed that technostress has a positive relationship with the work overload surplus and a negative and significant relationship with the perceived organizational support. It was determined that there is a negative and significant relationship between the work overload perception and POS. In addition, it is found that there is a positive and significant relationship between all the sub-dimensions

of the techno-stress and the work overload. It is determined that there is a negative and significant relationship between sub-dimensions only and techno-workload and perceived organizational support. Regression analysis is performed to determine the predictive power of independent variables on dependent variable after the relationships between variables were determined.

The analysis of the independent variables' effects on the dependent variable

We perform a multiple linear regression analysis in order to examine relationships between dependent and independent variables. Factor scores produced by EFA and encouraged to be used as variables in the regression model (Johnson & Wichern, 2002) are used in further analyses. Before conducting multiple linear regression analysis, it is necessary to test the basic assumptions such as normality and multicollinearity. We used the One Sample Kolmogorov-Smirnov Test to examine the normality of the variables and found that all variables are normally distributed at 95% confidence interval since $p > \alpha = 0.05$ for all variables. In addition, we test the multicollinearity of the variables and see that there is no multicollinearity since none of the VIF values is greater than 10 or none of the Tolerance values is smaller than .2 (Hair et al., 2009).

As a result of linear and multiple regression analysis using age as a control variable, it was observed that techno-stress with its all sub-dimensions have a positive and significant effect on the work overload perception. The details of the regression analyses are presented in Table 5 and Table 6.

Table 5 Linear regression analysis

Independent Variable	D Dependent Variable	e Uns td. β	Std. Err.	β	t	p	C Collinearity Statistics ***	
							Tolerance	VI
Age	Techno-stress (total)	-0.007	0.007	-0.087	-1.095	0.276	0.991	1.009
Workload		0.328	0.046	0.567	7.127**	0.000	0.991	1.009

n=109; * $p < 0.05$; ** $p < 0.01$; ***Since VIF <10 or Tolerans > 0.2, there is no problem of multiple linear correlation in the model (Tabachnick & Fidell, 2001).

Table 6 Multiple regression analysis

Independent Variable	Dependent Variable	Unstdtd. β	Std. Err.	β	t	p	Collinearity Statistics ***	
							Tolerance	VIF
Age	Workload	0.006	0.012	0.041	0.507	0.613	0.971	1.030
Techno-workload		0.451	0.080	0.451	5.628**	0.000	0.994	1.006
Techno-uncertainty		0.254	0.081	0.254	3.152**	0.002	0.980	1.020
Techno-sophistication		0.266	0.080	0.266	3.317**	0.001	0.996	1.004

n=109; * $p < 0.05$; ** $p < 0.01$; *** Since VIF <10 or Tolerans > 0.2, there is no problem of multiple linear correlation in the model (Tabachnick & Fidell, 2001).

THE INTERACTION OF TECHNO-STRESS WORK OVERLOAD EXCESSIVENESS IN PILOTS AND THE ROLE OF PERCEIVED ORGANIZATIONAL SUPPORT IN THIS PROCESS

Dr. Gökdeniz Kalkın, Dr. Rukiye Can Yalçın

When Table 5 and Table 6 are examined, the results support the first research hypothesis, “Hypothesis 1; There is a positive and meaningful relationship between pilots’ techno-stress levels and workload excess perception “.

The analysis of the mediating effect

Zhao et al., (2010) claim that Baron and Kenny’s (1986) classification of full, partial, and no mediation misleads researchers. They suppose three patterns consistent with mediation and two with nonmediation as complementary mediation (mediated effect (a x b) and direct effect (c) both exist and point at the same direction), competitive mediation (mediated effect (a x b) and direct effect (c) both exist and point in opposite directions), indirect-only mediation (mediated effect (a x b) exists, but no direct effect), direct-only nonmediation (direct effect (c) exists, but no indirect effect), and no-effect nonmediation (neither direct effect nor indirect effect exists). Zhao et al. (2010) also state that the test announced by Preacher and Hayes (2004) is almost always more powerful than Sobel’s by presenting SAS and SPSS syntax for an alternative “bootstrap”. They also recommend that the bootstrap test of the indirect effect should be conducted for examining mediation effect instead of the Baron- Kenny “three tests + Sobel” steps.

In order to analyze the mediating effect we perform “bootstrap test” proposed by Preacher and Hayes (2004, 2008). The test result is presented in Table 7.

Table 7SPSS output of bootstrap script testing indirect effect

Direct effect of X on Y	Effect	SE	t	p	
	,3291	,0461	7.1357	.0000	
Indirect effect of X on Y	Effect	Boot SE	Boot LLCI	Boot ULCI	
POS	-,0461	,0187	-,00994	. -,0827	
Normal Theory Tests for	Effect	SE	Z	p	
Indirect effect	-,0461	,0182	-2,5329	.0114	

Note: Y=WL, X=TS, M= POS; Sample size: 109; Number of bootstrap samples for bias corrected bootstrap confidence intervals: 5000; Level of confidence for all confidence intervals in output: 95.00; All SE for continuous outcome models are based on the HC3 estimator; The script written by Andrew F. Hayes, Ph.D. (www.afhayes.com) is used. Documentation available in Hayes (2013).

As it can be seen in Table 7, the mean indirect effect from the bootstrap analysis is negative (a x b = -0.0461) and significant (p=0.0114) with a 95% confidence interval excluding zero (-0.0994 to -0.0827). The direct effect of independent variable on dependent variable is c (0.3291) and significant (p = 0.000). As Zhao et al. (2010) stated, if axbxc (-0.0151) is negative, it refers that there is competitive mediation. This means that mediator identified is consistent with the hypothesized theoretical framework. Thus, H2 is supported.

CONCLUSION

From the beginning of the twenty-first century, airports and air transport have become an exciting growing industry. However, the technology has become an important point in the aviation sector. Rapid development in technology is transformed into pressure and stress on the individual. One of the main victims of techno-stress is pilots in this sector. In this study, we examined the association between techno-stress perceived by pilots and work overload, and the role of perceived organizational support in this process.

It is seen that the sense of work overload in pilots has a positive and significant effect on techno-stress level. In other studies in the literature, it is supported that the work overload increases techno-stress (Ennis, 2005; Ayyagari et al., 2011; Srivastava et al., 2015). They also state that there is a significant relationship between work overload and stress. Roscoe (1978) investigates the heart rate of test pilots recorded during various flight experiments testing different types of aircraft. She/He reports that heart rates are almost completely influenced by work overload-related factors, not emotional stress factors such as risk and anxiety.

Lee (2010) emphasizes that stress and work overload experienced by pilots have a significant impact on flight performance. However, it is detected that this process has a different course in employees with a higher perceived of organizational support, that is, perceived organizational support in pilots has a mediating role between workload and techno-stress. This mediating effect is negative. In other words, it can be said that it has a role of a kind of buffer to reduce techno-stress. Other studies carried in the literature support that, perceived organizational support reduces techno-stress (Ennis, 2005; Saganuwan et al., 2015; Krishnan, 2017). Sloan and Cooper (1986) reveal in their research on commercial airline pilots, that lack of career opportunities, poor organizational climate and organizational support are the dominant sources of stress. Research on flight attendants also support that social support reduces stress (Homan, 2002; Leo Jeeva & Chandramohan, 2008).

Particularly in the aviation sector, it is seen as a serious problem that the pilots are under heavy workload. This situation can be said according to the results of this study that it leads techno-stress together with normal work stress. One of the determinants that can be considered as critic here is the role of perceived organizational support. The techno-stress levels decrease when pilots think they get the support they expect from companies and managers they work for. Even if they are under heavy workload, pilots can control the techno-stress levels with organizational support.

Safety and security measures are important in the aviation sector. Because even the simplest mistake or negligence can lead to very dramatic results. Green (1985) states that the work overload by stress and long flight times affect the performance of pilots and may cause accidents. Also this work suggests that companies should provide more organizational support to their employees in order to prevent the negative impact of the pilots working under intense workload. Joseph (2016) reports in his study on Indian Military Pilots that emotional and social support significantly reduce stress. For example, in 1979 a Downeast Airlines de Havilland Twin Otter crashed into a rock while on final approach to Rockland in heavy fog. Seventeen people were killed. Accident reports reported this accident as a pilot error. But according to human performance specialists, the captain of the plane is tired and under stress. In addition, researchers have described airline management's efforts to reduce costs become a factor of pressure and source of stress on pilots (Stokes & Kite, 1994).

THE INTERACTION OF TECHNO-STRESS WORK OVERLOAD EXCESSIVENESS IN PILOTS AND THE ROLE OF PERCEIVED ORGANIZATIONAL SUPPORT IN THIS PROCESS

Dr. Gökdeniz Kalkın, Dr. Rukiye Can Yalçın

This research has limitations. Data are cross-sectional. The sample space of the study consists of only helicopter and aircraft pilots in general aviation in Ankara and Istanbul provinces in Turkey. Inferences may vary with regional and cultural differences. Thus, causality and temporal sequences should be cautiously generalized. In future work, researchers can also work in pilots who experience techno-stress and workload perception in the industry, as well as in ground handling and air traffic controllers.

References

- Alam, M. A. (2016). Techno-stress and productivity: Survey evidence from the aviation industry. *Journal of Air Transport Management*, 50, 62-70.
- Altaf, A. & Awan, M. A. (2011). Moderating affect of workplace spirituality on the relationship of job overload and job satisfaction. *J Bus Ethics*, 104, 93-99.
- Appelbaum, S. H. (1990). Computerhobia: Training managers to reduce the fears and love the machines. *Industrial and Commercial Training*, 22(6), 9-16.
- Aselage, J. & Eisenberger, R. (2003). Perceived organizational support and psychological contracts: A theoretical integration. *Journal of Organizational Behavior*, 24, 491-509.
- Avanzi, L., Fraccaroli, F., Castelli, L., Marcionetti, J., Crescentini, A., Balducci, C. & van Dick, R. (2018). How to mobilize social support against workload and burnout: The role of organizational identification. *Teaching and Teacher Education*, 69, 154-167.
- Ayyagari, R., Grover, V. & Purvis, R. (2011). Technostress: technological antecedents and implications. *MIS Quarterly*, 35(4), 831-858.
- Barley, S. R. (1990). The alignment of technology and structure through roles and networks. *Administrative Science Quarterly*, 35(1), 61-103.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173-1182. doi: <http://dx.doi.org/10.1037/0022-3514.51.6.1173>
- Beehr, T. A., Bowling, N. A. & Bennett, M. M. (2010). Occupational stress and failures of social support: When helping hurts. *Journal of Occupational Health Psychology*, 15, 45-49.
- Benitez, D. M., del Corte Valiente, A. & Lanzi, P. (2018). A novel global operational concept in cockpits under peak workload situations. *Safety Science*, 102, 38-50.
- Blau, P. M. (1964). Exchange and power in social life. New York: Wiley.
- Brod, C. (1984). *Techno stress: the human cost of the computer revolution*. MA: Addison-Wesley Publishing Company.
- Brown, L. A. & Roloff, M. E. (2015). Organizational citizenship behavior, organizational communication, and burnout: The buffering role of perceived organizational support and psychological contracts. *Communication*, 63(4), 384-404.
- Dumont, M. & Plancherel, B. (2001). Stress et adaptation chez l'enfant, Quebec: Presses de l'Université du Québec.

- Eisenberger, R., Cummings, J., Armeli, S. and Lynch, P. D. (1997). Perceived organizational support, discretionary treatment, and job satisfaction. *Journal of Applied Psychology*, 82, 812- 820.
- Eisenberger, R., Fasolo, P. & Davis-LaMastro, V. (1990). Perceived organizational support and employee diligence, commitment and innovation. *Journal of Applied Psychology*, 75(1), 51-59.
- Eisenberger, R., Huntington, R., Hutchison, S. & Sowa, D. (1986). Perceived organizational support. *Journal of Applied Psychology*, 71(3), 500-507.
- Ennis, L. A. (2005). The evolution of technostress. *Computers in Libraries*, 25(8), 10-12.
- Erdem, H., Kılınç, E., & Demirci, D. (2016). Çalışanlarda iş yükü fazlalığının algılanan istihdam edilebilirlik üzerine etkisi. *Elektronik Sosyal Bilimler Dergisi*, 15(58), 722-784.
- Fallahi, M., Motamedzade, M., Heidarimoghadam, R., Soltanian, A. R., Farhadian, M. & Miyake, S. (2016). Analysis of the mental workload of city traffic control operators while monitoring traffic density: A field study. *International Journal of Industrial Ergonomics*, 54, 170-177.
- Georges, J. M., Reed, T. F., Ballard, K. A., Colin, J. and Fielding, J. (1993). Contact with aids patients as source of work-relates distress: Effects of organizational and social support. *Academy of Management Journal*, 36, 157-171.
- Gevins, A & Smith, M. E. (2003). Neurophysiological measures of cognitive workload during human-computer interaction. *Theoretical Issues in Ergonomics Science*, 4(1-2), 113-131.
- Green, R. G. (1985). Stress and accidents. *Aviat Space Environ Med*, 56, 638-641.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2009). Multivariate data analysis. *Upper Saddle River, NJ*: Prentice Hall.
- Harkness, A. M. B., Long, B. C., Bermbach, N., Patterson, K., Jordan, S. & Kahn, H. (2005). Talking about work stress: Discourse analysis and implications for stress interventions, *Work & Stress*, 19(2), 121-136.
- Hayes, A. F. (2013). *Introduction to Mediation, moderation, and conditional process analysis a regression-based approach*. New York: Guilford Publications, Inc.
- Hickman, B. J. & Mehrer, R. (2001). Stress and the effects of air transport on flight crews. *Air Medical Journal*, 20(6), 6-9.
- Homan, W. J. (2002). Stress coping strategies for commercial flight crewmembers. *Journal of Aviation/Aerospace Education & Research*, 12(1), 15-27.
- Huey, B. M. & Wickens, C. D. (Eds.) (1993). *Workload transition: Implications for individual and team performance*. National Research Council, Washington, DC: The National Academies Press. doi: <https://doi.org/10.17226/2045>.
- Hur, W. M., Moon, T. W. & Jun, J. K. (2013). The role of perceived organizational support on emotional labor in the airline industry. *International Journal of Contemporary Hospitality Management*, 25(1), 105-123.
- Imoisili, O. A. (1985). *Task complexity, budget style of evaluating performance and managerial stress: An empirical investigation*. (Ph.D. dissertation) Graduate School of Business, University of Pittsburgh.

THE INTERACTION OF TECHNO-STRESS WORK OVERLOAD EXCESSIVENESS IN PILOTS AND
THE ROLE OF PERCEIVED ORGANIZATIONAL SUPPORT IN THIS PROCESS

Dr. Gökdeniz Kalkın, Dr. Rukiye Can Yalçın

- International Civil Aviation Organization, ICAO (2017). *Safety report*. https://www.icao.int/safety/Documents/ICAO_SR_2017_18072017.pdf on June 26, 2018.
- International Transport Workers' Federation, ITF (2009). *Stressed and fatigued on the ground and in the sky: Changes from 2000 – 2007 in civil aviation workers' conditions of work a global study of 116 countries in Africa, Asia/Pacific, Middle East, North America, Latin/South America, and Europe in the post-9/11 era*, London, United Kingdom.
- Johnson, R. A., & Wichern, D. W. (2002). *Applied multivariate statistical analysis* (5th ed.). USA: Pearson Education Int.
- Joseph, C. (2016). Stress coping strategies in indian military pilots-preliminary observations. *International Journal of Aviation, Aeronautics, and Aerospace*, 3(4), 1-18.
- Karavidas, K. M., Lehrer, P. M., Lu, S. E., Vaschillo, E., Vaschillo, B. & Cheng, A. (2010). The effects of workload on respiratory variables in simulated flight: A preliminary study, *Biological Psychology*, 84, 157-160.
- Koo, C. & Wati, Y. (2011). What factors do really influence the level of technostress in organizations?: An empirical study. In N.T. Nguyen et al. (Eds.). *New Challenges for Intelligent Information and Database Systems*(pp. 339-348). Berlin: Springer.
- Krishnan, S. (2017). Personality and espoused cultural differences in technostress creators. *Computers in Human Behavior*, 66, 154-167.
- Lee, K. (2010). Effects of flight factors on pilot performance, workload, and stress at final approach to landing phase of flight (Doctoral dissertation). Retrieved from http://etd.fcla.edu/CF/CFE0003489/Lee_Kyongsun_201012_PhD.pdf on June 8, 2018
- Leo Jeeva, S. P. & Chandramohan, V. (2008). Stressors and stress coping strategies among civil pilots: A pilot study. *Ind J Aerospace Med*, 52(2), 60-64.
- Li, W. C., Harris, D. & Yu, C. S. (2008). Routines to failure: Analysis of 41 civil aviation accidents from the republic of china using the human factors analysis and classification system. *Accident Analysis and Prevention*, 40, 426-434.
- Li, W. C., Yu, C. S., Greaves, M. & Braithwaite, G. (2015). How cockpit design impacts pilots' attention distribution and perceived workload during aiming a stationary target. *Procedia Manufacturing*, 3, 5663-5669.
- Lin, C. J., Lin, P. H., Chen, H. J., Hsieh, M. C., Yu, H. C., Wang, E. M. Y. & Ho, H. L. C. (2012). Effects of controller-pilot communication medium, flight phase and the role in the cockpit on pilots' workload and situation, *Safety Science*, 50(9), 1722-1731.
- Mandrick, K., Peysakhovich, V., Rémy, F. & Lepron, E. (2016). Neural and psychophysiological correlates of human performance under stress and high mental workload, *Biological Psychology*, 121, 62-73.
- Mansikka, H., Virtanen, K., Harris, D. & Simola, P. (2016). Fighter pilots' heart rate, heart rate variation and performance during an instrument flight rules proficiency test, *Applied Ergonomics*, 56, 213-219.
- Martinussen, M., & Hunter, D. R. (2010). *Aviation psychology and human factor*. USA: Taylor and Francis Group.

- Mazloun, A., Kumashiro, M., Izumi, H. & Higuchi, Y. (2008). Quantitative overload: A source of stress in data-entry vdt work induced by time pressure and work difficulty. *Industrial Health*, 46, 269-280.
- McLean, D. & Monro I. (2004). Runway incursions and prevention systems. *Aircraft Engineering and Aerospace Technology*, 76(5), 472-478.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *The Journal of Applied Psychology*, 88(5), 879-903. doi: <http://dx.doi.org/10.1037/0021-9010.88.5.879>
- Preacher, K. J., & Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments, & Computers*, 36(4), 717-731.
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, 40(3), 879-891.
- Rhoades, L. & Eisenberger, R. (2002). Perceived organizational support: A review of the literature. *Journal of Applied Psychology*, 87(4), 698-714.
- Roscoe, A. H. (1978). Stress and workload in pilots. *Aviat Space Environ Med*, 49(4), 630-633.
- Saganuwan, M. U., Ismail W. K. W. & Ahmad, U. N. U. (2015). Conceptual framework: AIS technostress and its effect on professionals' job outcomes. *Asian Social Science*, 11(5), 97-107.
- Salo, M., Pirkkalainen, H. & Koskelainen, T. (2017). Technostress and social networking services: Uncovering strains and their underlying stressors In S. Stigberg et al. (Eds.): *Nordic Contributions in IS Research*, 8th Scandinavian Conference on Information Systems, SCIS, Halden, Norway.
- Sloan, S. J. & Cooper, C. L. (1986). Stress coping strategies in commercial airline pilots. *J Occup Med*, 28(1), 49-52.
- Srivastava, S. C., Chandra, S. & Shirish, A. (2015). Technostress creators and job outcomes: Theorising the moderating influence of personality traits. *Info Systems J.*, 25, 355-401.
- Stassen, M. & Ursel, N. D. (2009). Perceived organizational support, career satisfaction, and the retention of older workers. *Journal of Occupational and Organizational Psychology*, 82, 201-220.
- Stokes, A. F. & Kite, K. (1994). *Flight stress: Stress, fatigue, and performance in aviation*. UK: Gower Technical.
- Suharti, L. & Susanto, A. (2014). The impact of workload and technology competence on technology competence on technostress and performance of employees. *Indian Journal of Commerce & Management Studies*, 5(2), 1-7.
- Tabachnick, B. G., & Fidell, L. S. (2001). *Logistic regression. Using multivariate statistics* (4th ed.). Boston, Mass: Allyn & Bacon
- Tarafdar, M., Pullins, E. B. & Ragu-Nathan, T. S. (2015). Technostress: Negative effect on performance and possible mitigations. *Info Systems Journal*, 25, 103-132.
- Tarafdar, M., Tu Q., Ragu-Nathan, B. S. & Ragu-Nathan T. S. (2007). The impact of technostress on role stress and productivity. *Journal of Management Information Systems*, 24(1), 301-328.
- Tarafdar, M., Tu, Q. & Ragu-Nathan, T. (2011). Impact of technostress on end-user satisfaction and performance. *Journal of Management Information Systems*, 27(3), 303-334.

THE INTERACTION OF TECHNO-STRESS WORK OVERLOAD EXCESSIVENESS IN PILOTS AND
THE ROLE OF PERCEIVED ORGANIZATIONAL SUPPORT IN THIS PROCESS

Dr. Gökdeniz Kalkın, Dr. Rukiye Can Yalçın

- Tourgny, L., Baba, V. V. & Wang, X. (2010). Stress episode in aviation: The case of China. *Cross Cultural Management: An International Journal*, 17(1), 62-78.
- Towell, E. R. & Lauer, J. (2001). Personality differences and computer related stress in business students. *American Journal of Business*, 16(1), 69-76.
- Türen, U., Erdem, H., & Kalkın, G. (2015). İşyerinde tekno-stres ölçeği: Havacılık ve bankacılık sektöründe bir araştırma. *Çalışma İlişkileri Dergisi*, 6(1), 1-19.
- Turunç, Ö., & Çelik, M. (2010). Çalışanların algıladıkları örgütsel destek ve iş stresinin örgütsel özdeşleşme ve iş performansına etkisi. *Yönetim ve Ekonomi: Celal Bayar Üniversitesi İ.İ.B.F Dergisi*, 17(2), 183-206.
- Vine, S. J., Uiga, L., Lavric, A., Moore, A. J., Tsaneva-Atanasova, K. & Wilson, M. R. (2015). Individual reactions to stress predict performance during a critical aviation incident. *Anxiety, Stress, & Coping*, 28(4), 467-477.
- Wang, K. & Shu, Q. (2008). The moderating impact of perceived organizational support on the relationship between technostress and role stress. *19th International Conference on Database and Expert Systems Application*. doi: 10.1109/DEXA.2008.67.
- Wang, K., Shu, Q. & Tu, Q. (2008). Technostress under different organizational environments: An emirical investigation. *Computers in Human Behavior*, 24, 3002-3013.
- Weaver, C. P. (2015). Perceived organizational support and job overload as moderators on the relationship between leadership effectiveness and job satisfaction. *Emerging Leadership Journeys*, 8(1), 79-100.
- Weiss, M. D. & Young, L. J. (2007). Should we fly or drive? The use of a computer-based system (antss) for resource utilization. *Air Medical Journal*, 26(2), 104-110.
- West, J. (2007). Technophobia, technostress and technorealism. information tomorrow: Reflections on technology and the future of public and academic libraries. In R. Singer Gordon (Ed.), *Information Tomorrow*, New Jersey: Information Today, Inc.
- World Health Organization, WHO (2004). *Work organization & stress*. http://www.who.int/occupational_health/publications/pwh3rev.pdf. on March 8, 2018
- Xie, B. & Salvendy, G. (2000). Review and reappraisal of modelling and predicting mental workload in single and multi-task environments, *Work&Stress*, 14(1), 74-99.
- Zhao, X., Lynch, J. G., & Chen, Q. (2010). Reconsidering baron and kenny: Myths and truths about mediation analysis. *The Journal of Consumer Research*, 37(2), 197-206. doi: <http://dx.doi.org/10.1086/651257>.

8

VALUE AT RISK CALCULATION BY NONPARAMETRIC METHODS

Dr. Ersin Kanat¹

Introduction

The concept of risk is an important issue for all investors. An investment decision that involves more risk than the maximum possible loss cannot be regarded as a correct decision. Therefore, risks should be taken into consideration before any investments are made. Dealing only with the return on an investment is interpreted as an incomplete investment plan or analysis. The risk probabilities of the investment are as important as the probability of return. In other words, risk and return should be evaluated together by considering how much risk should be taken for a return.

When risks are so important in an investment decision, it is inevitable to measure the extent of potential risks. Because, the fact that the risk size can be expressed numerically provides the investor with great convenience and objective evaluation during the comparison and evaluation phase. One of the ways followed for risk measurement is to use “Value-at-Risk (VaR)” methods. Value-at-risk methods; enable to calculate to what extend a portfolio of any product or product basket may depreciate in a given period of time.

Value-at-risk methods are used by many national and international financial institutions. Besides, a large number of individual investors use existing methods, as well. In short, these methods have become very popular nowadays and are highly preferred and trusted methods. It is recommended that the relevant methods be used even at Basel standards.

Various methods can be used to measure the value at risk when making an assessment. But in this study; information is given on some of the most common and widely accepted variance-covariance, historical simulation and Monte Carlo Simulation methods. In addition, sample applications are given with the historical simulation method, which is frequently used in the banking sector, and the Monte Carlo Simulation increasing by means of technological developments in recent days.

In short, risk management has become a very important issue nowadays, and thanks to value-at-risk methods, information on the extent of risk can be provided. Value-at-risk methods are generally divided into parametric and non-parametric methods. In this study, non-parametric methods are much more emphasized and only examples of simulation methods are given. The samples are related to the calculation of the value-at-risk belonging to G7 countries' stock exchanges.

Some Examples From the Literature

The issue of financial risk management and value-at-risk calculation has become an important issue in all countries. It is possible to encounter many studies about this subject. The number of researches on nonparametric methods

¹ Zonguldak Bülent Ecevit University

with increasing popularity is also quite high. In this part of the study, examples of recent studies on Historical Simulation and Monte Carlo Simulation methods was given.

Some studies on the historical simulation method are as follows:

Stavroyiannis (2017) studied the value at risk of digital currencies in his work titled “Value at Risk and Expected Shortfall for the Major Digital Currencies”. The currencies contained in the research are Bitcoin, Eterum, Litecoin and Ripple. He has used historical simulation to calculate the Value at Risk and has stated that these currencies are at high risk.

Another study titled “ A Comparison between Historical Simulation and GARCH Model for Estimating Value-at-Risk: Case of Indian Stock Exchange” was conducted by Sahoo, Jain, Singh and Jain (2017). The researchers compared the Garch model, which is a parametrical method, with the Historical Simulation model. The study conducted by researchers revealed that the historical simulation gave better results. Therefore, the authors argued that nonparametric methods can produce better results.

Karan, Uysal& Kaya (2017) examined market risk for twelve emerging market equity portfolios in their study titled “Value at Risk Performance of Emerging Market Equity Portfolios During the Fed’s Tapering”. The researchers compared the variance-covariance model with the historical simulation model for equity portfolios. The results showed that the historical simulation was more successful. researchers also made their analysis for US Government Bond portfolios.

Akhtekhane and Mohammadi (2012) have benefited from the historical simulation model in determining the risks arising from fluctuations in exchange rates. In their study titled “Measuring Exchange Rate Fluctuations Risk Using the Value-at-Risk”, the authors suggested that the performance of the historical simulation method was good in the studies on exchange rates.

In the article titled “Risk of Public Family Firms”, Lipiec (2015) analyzed the risk of family firms by using historical simulation. The study includes pre-crisis, crisis and post-crisis periods. As a result of the findings obtained by the historical simulation method; In the pre-crisis period, family firms were found to be slightly less risky than others, they were more risky in times of crisis and they were almost equally risky in post-crisis periods.

In recent years, some studies carried out with monte carlo simulation are as follows:

Amin, Yahya, Ibrahim & Kamari (2018) have performed a study titled “ Portfolio risk measurement based on value at risk (VaR)” . In this study, they have compared other methods with the Monte Carlo simulation in order to determine the portfolio risk. Their findings showed that the most flexible and acceptable method was Monte Carlo simulation method.

In the study titled “ Market risk assessment on poultry industry using Monte Carlo simulation”; Purwaningsikh, Arief, Handayani, Rahmawati&Mustikasari (2018) used Monte Carlo simulation model to measure the business risk. So, they calculated the cost of production, cost structure and profit/loss, Then they measured the market risk of the farm that was subject to farm.

In the article titled “Value-at-Risk estimation with stochastic interest rate models for option-bond portfolios”; Wang, Xie, Jiang, Wu, & He (2017) used a Monte Carlo simulation-based approach to measure Value-at-Risk

for a portfolio of options and bonds. They emphasized that the biggest advantage of their research is that their implementation does not require prior knowledge of the joint distribution or other statistical features related to risk factors.

Krumrey, Moeini, & Wendt (2017) have implemented a cash flow-based model for cash management. In the study titled “A Cash-Flow-Based Optimization Model for Corporate Cash Management: A Monte-Carlo Simulation Approach”, they utilized the Monte Carlo simulation method when applying their models. At the end of the study they concluded that their models are valid.

Mucha, Pales & Sakalova (2016) wrote an article titled “Calculation of the Capital Requirement Using the Monte Carlo Simulation for Non-life Insurance”. In this article they aimed to show the possibility of using the Monte Carlo method within the field of risk reduction by applying a particular form of insurance. They wrote that the method they developed had a flexible response to changes in an insurance form or parameters, and concluded that the method could be used to optimize the selection of appropriate scenarios.

Risk Concept and Types

The concept of risk has started to gain more meaning nowadays and has become the most conspicuous element by many investors. It is possible to see the risk as a possibility of a loss, danger or probability of value differentiation. It is possible to encounter many definitions related to the subject.

Risk in general can be thought of as a potential of loss caused by an event that may adversely affect the success of a target. At first glance, this definition can be seen as describing the risk only as deprivation. Risk also refers to the overestimation. In short, the potential for loss can be explained as actually reaching a different value than expected. Because, overestimation may sometimes adversely affect success (Monahan, 2008: 3).

As the risk is expressed as the potential for loss or loss, each investor should be informed about risk management. That is, it is necessary to determine what risks are, to be evaluated and to be prepared for risks. Otherwise, unexpected surprises will be inevitable.

Risk is generally divided into two main groups as systematic and non-systematic risk. Systematic risk is a generalized risk affecting overall market, sector or industry. For instance, the impact of changes in economic factors on all markets is an example of systematic risk. The non-systematic risk becomes a risk for a specific enterprise, firm or investment, and therefore it is a greater concern for investors (Vasigh, Fleming, & Mackay, 2010: 90).

In order to reduce the risks, portfolio diversification is generally made by investors. However, as can be seen from the definition, portfolio diversification in systematic risks cannot benefit much. Because, all assets in the portfolio will be affected by systematic risks such as economic and political risks. Portfolio diversification is mostly used to reduce the impact of non-systematic risks. This is because each asset in the portfolio has different non-systematic risks.

Value at Risk

Value at risk; a statistical measure is used to estimate the maximum loss that can be encountered by considering the risks of a product or portfolio in a period of time with a certain confidence interval (Best, 2000: 10).

Therefore, value-at-risk is not only a measure of a particular product, also is used to measure the risk of a portfolio with more than one product. That the value-at-risk delivers quantitative and quantifiable results of risk components has led to the frequent preference of the financial institutions. It is also known that there are some studies showing that the VaR system can be used in different risk measures such as credit risk, although it is frequently used in measuring market risk.

There are some parameters that must be used in calculating the value at risk. First of all, in order to make a statistical deduction in the calculations, “confidence level” should be determined. Generally, the preferred confidence level is 99%. In addition, 95% confidence level is used in some studies, as well.

Another parameter to be known is “retention period”. The risk of the portfolio may vary depending on the retention period. According to the Basel Committee, the recommended retention period is ten days. However, there are quite a number of people or organizations that make calculations based on different retention periods (Choudhry, Joannas, Landuyt, Pereira, &Pienaar, 2010: 466).

“The sample period” must also be used in the calculations. If a very low period is selected for the sample, a misleading result may occur. When the studies on the subject are examined, it is seen that generally 250 days are used. It is thought that 250 days is a sufficient sampling period in terms of reflecting the past.

The following formula can be used as the basis for calculating the value at risk (Turker, 2009: 6).

$$Var = M. \alpha. \sigma. \sqrt{T} \quad (1)$$

Where “M” indicates the position amount, “a” confidence level, “σ” refers to the standard deviation (volatility) and “T” indicates the retention period.

Although formula 1 is mentioned, there are also other methods for the calculation of the VaR. These methods are divided into parametric and nonparametric methods. Parametric methods assume that asset yields are normally distributed and that relationships between asset returns are linear. Nonparametric methods predetermine the value distribution of the price movements in past observations without including the distribution of returns (Demireli&Taner, 2009: 130).

It is not clear yet which method will yield better results in calculations. Studies and discussions on the subject continue to this day. While the most common parametric method is-Variance-Covariance method, the non-parametric methods, which are frequently encountered, are “Historical Simulation “and “Monte Carlo Simulation” methods(Bilir&Güteryüz, 2018: 631).

Method of Variance-Covariance

This method, which is called parametric method, is applied by using simple analytical calculations. The basic assumption of the method is that asset prices are normally distributed. It is one of the simplest methods among value-at-risk calculations. The ease of application and the calculation time is the biggest advantage of the method.

The historical data is used in calculations. The volatility and correlations of portfolio returns are calculated and the method is applied. The application steps of the method can be summarized as follows (Akin &Akdugan, 2012: 228-229):

1. Historical data of the risk factors constituting the portfolio are taken.
2. Yield changes.
3. There is a covariance matrix from the yield changes.
4. The risk weight matrix is created.
5. Transpose the weight matrix.
6. The variance of the portfolio is obtained by multiplying the covariance matrix, the weight matrix and the transposition of the weight matrix. By taking the square root of the result, the volatility of the portfolio is found.
7. The level of trust and the Z value at this level are found.
8. The retention period is determined and the square root of the time specified in the calculation is used.
9. The present value of the portfolio is determined.
10. The value of the portfolio, the Z value of the trust level, the volatility of the portfolio and the square root of the holding period are multiplied by the VaR value.

In short, the expected change of the data obtained from previous periods and risk factors is calculated and the loss caused by this change is considered as “VaR”. Although it has advantages such as simple and quick use of the method, its biggest disadvantage is that it cannot be used in non-linear positions.

Historical Simulation

According to this method, history is thought to be repeated continuously. Therefore, daily price changes in a given time period are taken into account and a distribution is established. The value corresponding to a certain confidence interval is then referred to as VaR of the portfolio.

The historical simulation method, which is one of the non-parametric methods, is still one of the easiest methods to implement. No statistical assumptions and parameters are used in the method. Only changes that have taken place in previous periods are applied to the current portfolio (Farid, 2014: 161).

Only the use of historical data may cause it to ignore the different risks that may arise in the future. This is the biggest disadvantage of the method. Yet another important disadvantage is that in the historical data, unusual fluctuations may cause loss of sensitivity and thus cause the value at risk to be high.

In spite of all these negative aspects, the method generally allows to achieve satisfactory healthy results. The method is also suitable for use in non-linear positions. The most important advantage of the method is that it can define unbalanced and normal distribution markets and it is used in practice.

The following basic steps should be followed when applying the historical simulation method (Saunders & Cornett, 2008: 279-281):

1. The values of the assets in the portfolio are converted into a single currency.
2. Market prices are evaluated by measuring the changes in the values of assets and calculating their returns.
3. Past historical data that have taken place during the measurement period are obtained.

4. The amounts exposed to risk are evaluated with historical data realized during the measurement period. The obtained values are compared with the present value of the portfolio and the differences are found.
5. The resulting daily differences are ordered from the worst to the best.
6. The VaR corresponding to the specified confidence interval is determined.

Monte Carlo Simulation

Monte Carlo Simulation is also one of the nonparametric tests. It is a method which has gained popularity with the increase of information-processing and technological developments. Although it is similar to the historical simulation method, it does not depend on historical data as in the method in question. Random variables in the future are produced with a distribution that is thought to represent adequately changes in the past market data and factors. It is known that Monte Carlo Simulation is used in many studies and it is emphasized that the method is very strong and reliable in many of these studies.

The following steps are followed in the calculation of VaR with Monte Carlo Simulation (Terzioglu, 2018: 54-55):

1. The return changes of the risk factors are calculated and the parameters of the distribution of the return changes are estimated.
2. Correlation and covariance matrices of risk factors are created and appropriate random numbers are produced.
3. In the covariance matrix, the Cholesky& Singular Value Decomposition matrix is generated.
4. The randomized price series with the transposed Cholesky& Singular Value matrix is multiplied and the relationship between past risk factors is reflected in the newly produced price series and applied to the portfolio.
5. The difference between the current and hypothetical values of the portfolio is ranked from the highest loss to the highest profit.
6. The value corresponding to the determined confidence level is determined as VaR.

The issue to be considered in this method is the realization of a sufficient number of simulations. If a very small number of simulations are used with random numbers, there will be no number of samples to reflect all the possibilities. The greater the number of simulations, the more accurate the sample will be.

Comparison of Methods

As mentioned in the previous chapters, there are many methods that can be used to calculate the value at risk. Each method can have its own good or bad aspects. Some aspects of the methods mentioned and frequently used in this study are shown in a summary in Table 1.

	Variance Covariance	Historical Simulation	Monte-Carlo Simulation
Use in non-linear positions	X	a	a
Quick calculation	a	a	X (except for small portfolios and a small number of simulations)
Easy to explain to senior management	X	a	a
Misleading VaR estimates when recent past is not representative	a (Except the use of alternative correlation)	a	a (Except the use of alternative correlation)
Scenario analysis	X	Assumptions about variance and correlation are easy to examine, but assumptions about the distribution of market factors cannot be examined	a

Table 1: Comparison of Methods (Farid, 2010: 8)

Application of Nonparametric Methods

In this study, stock index data of G7 countries between the dates 01.01.2017 and 31.12.2017 were used. These indices; CAC40 (France), DAX (Germany), FTSE100 (UK), FTSE MIB (Italy), NIKKEI225 (Japan), SP500 (USA) and SPTSX (Canada). Information about the relevant stock indices is taken from “Yahoo Finance” web page. In the study, the values of the stock index indices were found by the methods of Historical Simulation and Monte Carlo simulation which are nonparametric methods. In this way, it is aimed to give an idea about how to discuss the subjects described in the previous chapters in practical terms and how to interpret them according to the results.

Each index was analyzed separately while risk exposure was found. As mentioned earlier, the value at risk calculation can be applied to a portfolio as well as to a single financial product. For each index, 1,000USD is assumed to be invested and each index is examined on its own. Therefore, it is estimated about which index carries how much risk after the analysis period.

Relevant comments and conclusions are related only to the method used and to the period in which the analysis occurred, and do not include any definitive terms. As it is known, stock exchanges and many financial products can have different degrees of risk in different periods. Therefore, it should be understood that the application of these methods is not always correct in the interpretation that any product is always more advantageous than the other. A product with a high value at risk is likely to be lower in another period.

Descriptive statistics were calculated for the returns of each stock index in order to provide information before the analysis was performed. Information on the stock market indices analyzed is shown in Table 2.

Data	Average	Standard Deviation	Minimum	Maximum
Dax	0,00047	0,007	-0,018	0,033
Ftse100	0,00029	0,006	-0,025	0,021
Nikkei225	0,00065	0,008	-0,025	0,025
Ftse-Mib	0,00047	0,009	-0,030	0,047
Sptsx	0,00019	0,005	-0,018	0,013
Sp500	0,00071	0,004	-0,018	0,014
Cac40	0,00035	0,007	-0,019	0,041

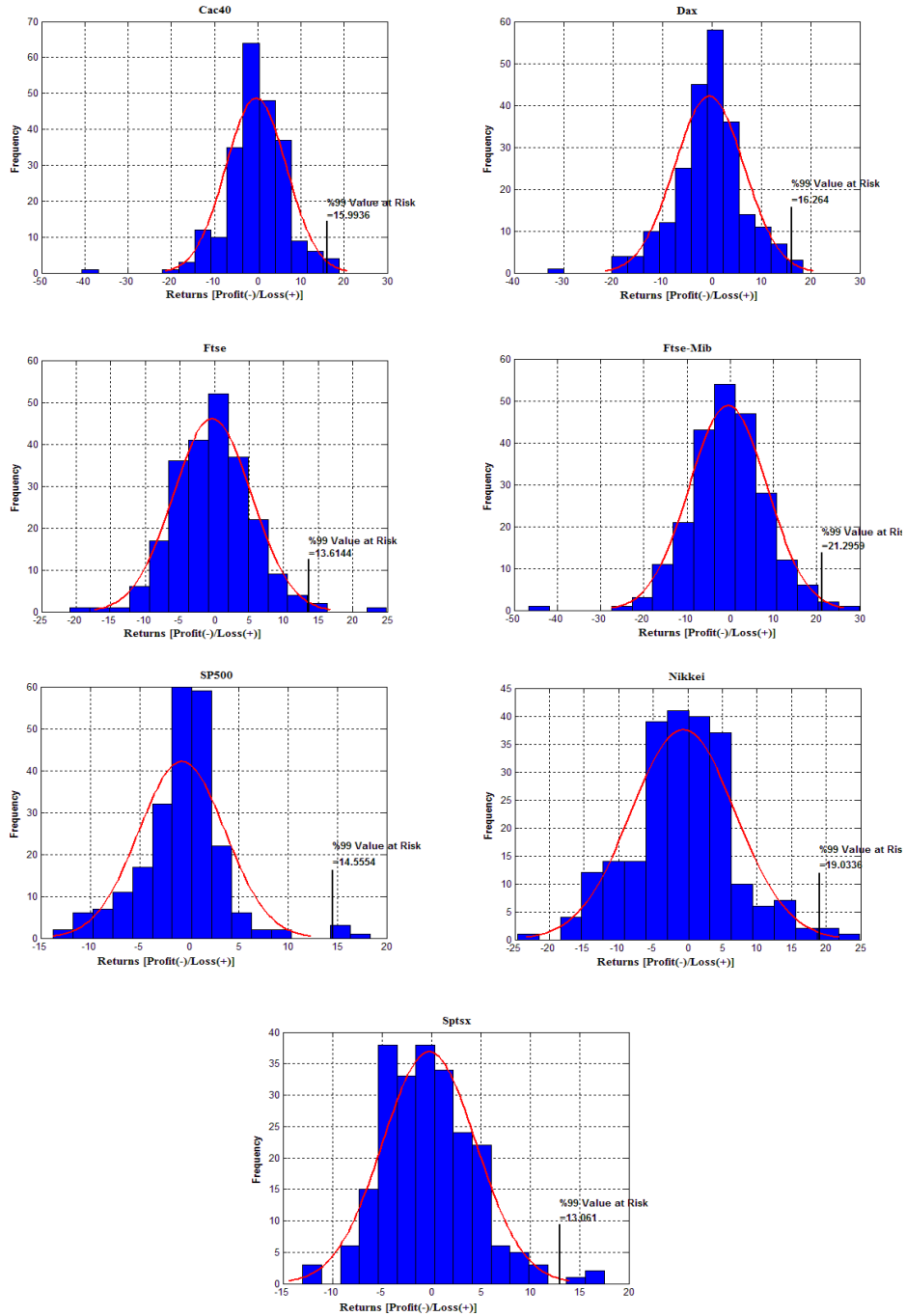
Table 2: Descriptive Statistics Values of Returns

VaR Calculation by Historical Simulation Method

Calculations were made according to the historical simulation method over the yields of the stock market indices. The analyzes were carried out at a confidence interval of 99 percent and were assumed to be \$1,000 for each stock index. Therefore, the returns of the indices were calculated and multiplied by the amount of \$1,000. The results are then sorted from lowest to highest. Finally, the value corresponding to 99% confidence level is determined as the value at risk based on the Historical Simulation method.

In the graphs shown in Figure 1, the frequency distributions and the calculated VaR values in the analysis period of the yields of the stock indices are given. As can be seen from the graphs, the index returns are not symmetrical, and it is understood from the graphs that different results will be obtained in different confidence intervals.

Figure 1: Yield Distribution Charts and VaR Values



All the stock values determined by the stock market indices mentioned in Figure 1 are shown in Table 3.

Indices	VaR
Dax	16,2640
Ftse100	13,6144
Nikkei225	19,0336
Ftse-Mib	21,2959
Sptsx	13,0610
Sp500	14,5554
Cac40	15,9936

Table 3: VaR Values by Historical Simulation Method

These results show the probability of possible losses at the level of 99% confidence in the indexed indexes. In other words; for example, if the Dax index is \$1,000, the maximum loss is considered to be \$16.26.

In this way, the maximum loss that can be encountered before investing in any financial product can be calculated in a 99% confidence interval. Hence, products that are more or less risky can be determined during the investment decision phase. As a result of this analysis, the maximum loss values that can be caused by the indices are found and the risk dimensions of the indices are listed accordingly.

VaR Calculation by Monte Carlo Simulation Method

The other method of application is Monte Carlo Simulation. The yields of each index were calculated separately. First of all, covariance matrix and Cholesky singular value matrix were created. Then 1000 data were generated for each index and the data were multiplied by the transpose of the Cholesky matrix. Again, as in the previous method, each index was thought to have been deposited separately at \$1,000. VaR calculation was made according to the simulation which was formed according to 99% confidence level as in the historical simulation method.

Indices	VaR
Dax	11,9262
Ftse100	9,7649
Nikkei225	12,6672
Ftse-Mib	15,3750
Sptsx	8,1802
Sp500	6,9796
Cac40	12,0379

Table 4: VaR Values by Monte Carlo Simulation

Table 4 shows the VaR values obtained by Monte Carlo Simulation. According to this method, it is given that at 99% confidence level, indices can cause at most how much loss in the related period.

Conclusion

Risk refers to uncertainty in general and is of particular concern to investors. It is very important for individual and institutional investors to measure the risks that a product or a portfolio carries and to know about the extent of these risks. Value-at-risk methods are also disclosed for this purpose. Although the methods proposed for the first time are parametric methods, non-parametric methods have also been developed due to the inaccurate results in non-linear products and normal distribution.

As mentioned in the subject, each method has its own advantages and disadvantages. The greatest advantages of nonparametric methods are seen in non-linear and non-normally distributed data. However, the major disadvantages of the methods are that they are generally slower than parametric methods. In spite of some disadvantaged aspects, non-parametric methods are preferred especially in the analysis of portfolios with option style financial products.

At the application part of the study, the value-at-risk values of stock indexes belonging to G7 countries were calculated firstly according to the Historical Simulation method and then according to Monte Carlo simulation. The methods show the probability of maximum loss of each index in the specified period according to their own calculation methods. While depending on only the historical data in Historical Simulation calculation, the possible future values are also examined in Monte Carlo Simulation. In general, both methods are accepted and frequently used methods. Which one is preferred depends on the analyser, and various studies can be performed to evaluate their performance.

References

- Akhtekhane, S. S., & Mohammadi, P. (2012). Measuring Exchange Rate Fluctuations Risk Using the Value-at-Risk. *Journal of Applied Finance and Banking*, 2(3), 65-79.
- Akın, Y. K., & Akduğan, U. (2012). Finansal Piyasalarda Risklerin Belirlenmesinde Riske Maruz Değer Yöntemine İlişkin Bir Uygulama. *Trakya Üniversitesi Sosyal Bilimler Dergisi*, 14(1), 225-236.
- Amin, F. A. M., Yahya, S. F., Ibrahim, S. A. S., & Kamari, M. S. M. (2018, June). Portfolio risk measurement based on value at risk (VaR). In *AIP Conference Proceedings* (Vol. 1974, No. 1, p. 020012). AIP Publishing.
- Best, P. (2000). *Implementing Value at Risk*. Chichester: John Wiley & Sons.
- Bilir, H., & Güleriyüz, Y. (2018). Value at Risk Approach with Parametric and Non-Parametric Methodologies. *Journal of Social and Humanities Sciences Research*, 5(19), 627-638.
- Choudhry, M., Joannas, D., Landuyt, G., Pereira, R., & Pienaar, R. (2010). *Capital Market Instruments Analysis and Valuation*, 3rd Edition. Hampshire: Palgrave Macmillan.
- Demireli, E., & Taner, B. (2009). Risk Yönetiminde Riske Maruz Değer Yöntemleri ve Bir Uygulama. *The Journal of Faculty of Economics and Administrative Sciences*, 14(3), 127-148.
- Farid, J. A. (2010). *Risk Management: Calculating Value at Risk*. Alchemy Technologies.

- Farid, J. A. (2014). Asset Liability Management - Crash Course, 3rd Edition. FinanceTrainingCourse.com.
- Lipiec, J. (2015). RISK OF PUBLIC FAMILY FIRMS. Research Papers of the Wrocław University of Economics/Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu, (412), 185-203.
- Karan, M. B., Uysal, E. U., & Kaya, M. (2017). Value at Risk Performance of Emerging Market Equity Portfolios During the Fed's Tapering. In Risk Management, Strategic Thinking and Leadership in the Financial Services Industry. Springer, Cham. 191-209.
- Krumrey, L., Moeini, M., & Wendt, O. (2017, June). A Cash-Flow-Based Optimization Model for Corporate Cash Management: A Monte-Carlo Simulation Approach. In International Conference on Computer Science, Applied Mathematics and Applications. Springer, Cham. 34-46.
- Monahan, G. (2008). Enterprise Risk Management: A Methodology for Achieving Strategic Objectives. New Jersey: John Wiley & Sons.
- Mucha, V., Pales, M., & Sakalova, K. (2016). Calculation of the Capital Requirement Using the Monte Carlo Simulation for Non-life Insurance. Ekonomicky Casopis, 64(9), 878-893.
- Purwaningsih, R., Arief, M., Handayani, N. U., Rahmawati, D., & Mustikasari, A. (2018). Market risk assessment on poultry industry using Monte Carlo simulation. In IOP Conference Series: Materials Science and Engineering (Vol. 403, No. 1, p. 012044). IOP Publishing.
- Sahoo, B. P., Jain, N., Singh, A., & Jain, G. (2017). A Comparison between Historical Simulation and GARCH Model for Estimating Value-at-Risk: Case of Indian Stock Exchange. Asian Journal of Research in Business Economics and Management, 7(5), 124-133.
- Saunders, A., & Cornett, M. M. (2008). Financial Institutions Management: A Risk Management Approach, 6th Edition. New York: McGraw-Hill Irwin.
- Stavroyiannis, S. (2017). Value-at-Risk and Expected Shortfall for the major digital currencies. arXiv preprint arXiv:1708.09343.
- Terzioğlu, M. K. (2018). Riske Maruz Değer Kavram ve Uygulamalar. Ankara: Gazikitevi.
- Türker, H. (2009). Riske Maruz Değer (Value at Risk) ve Stres Testi: Global Finansal Kriz sonrasındaki risklerin değerlendirilmesi. Ankara: SPK (Capital Markets Board of Turkey).
- Wang, X., Xie, D., Jiang, J., Wu, X., & He, J. (2017). Value-at-Risk estimation with stochastic interest rate models for option-bond portfolios. Finance Research Letters, 21, 10-20.
- Vasigh, B., Fleming, K., & Mackay, L. (2010). Foundations of Airline Finance: Methodology and Practice. Farnham: Ashgate Publishing Limited.

9

INCREASING IMPORTANCE OF FINANCIAL LITERACY FOR ECONOMIC UNITS AND EVALUATION OF ACTIVITIES FOR AWARENESS

Dr. Nevzat Tetik¹

INTRODUCTION

Financial literacy, which is a new and up-to-date financial concept, is the ability of individuals, enterprises, governments to use the funds or financial resources they own rationally. National and international financial crises and bankruptcies, complex financial products and transactions, financial frauds, excessive consumption level, high population growth rates and decreasing savings rates increase the importance of conscious financial literacy. Today all developed and developing countries by measuring the financial literacy level of economic units with empirical studies are conducting various financial education and other types of activities to increase the levels of financial literacy. According to the survey results, it is obvious that these financial education and other types of activities are not healthy and sufficient for different reasons. In order to increase the conscious financial literacy These results should be simultaneously evaluated to improve financial education programs of the target groups. Countries should cooperate to carry out these activities in a more rational, comprehensive and sustainable manner. In addition, it is very important to educate financial literacy educators by taking into consideration the demographic, cultural characteristics and basic priority needs of economic units subject to financial literacy education.

1. Definition of Financial Literacy

The definition of financial literacy, which is in the development stage of finance literature, has been explained in different ways by many researchers and institutions. Therefore, there is no common definition. Even its terminological use may vary from country to country, from researcher to researcher. In the UK and Canada, the concept of "financial capability" is used, while in the United States, Australia and some other countries the concept of "financial literacy" is used. Furthermore some authors and institutions prefer to use the term "financial awareness", some others use the term "economic literacy instead (Kaderli et al., 2016: 92).

Some different definitions of financial literacy are given below: -

- The ability to obtain and analyze information about financial issues and events that affect financial well-being (Vitt et al., 2000).
- It is the ability of the individual to manage the financial status in the most rational way by taking into account the possible events and economic developments in life, by understanding and interpreting the basic financial concepts, taking short term decisions and making long-term financial planning (Remund, 2010: 279).

¹ İnönü University

It is explained as a process of raising financial well-being by ensuring that financial consumers and investors are informed about financial products and concepts or that they can make a choice among financial risks and alternatives (Güler, 2015: 6).

-It is a concept that covers more general issues such as financial products, financial institutions and financial planning (Xu, Zia, 2012: 2).

- According to the Organization for Economic Cooperation and Development, financial literacy; is the process of increasing the financial quality by ensuring that individuals are informed about financial products and concepts or it is the awareness that they can choose between financial risks and alternatives (Er et al., 2015: 113).

- It is the ability to develop behavior based on the knowledge about budgeting, saving, investment, lending, insurance, diversification and income-expenditure matching. As can be seen from various definitions, financial literacy concept is examined in two ways; basic and advanced. Being able to comment on interest rates, understanding the effects of inflation, understanding the concept of risk and its diversity are the basic financial literacy issues. Estimations about equity market, bond prices, funds, and interest rates are considered within the scope of advanced financial literacy (Hayta, 2011: 248).

2. The emergence of financial literacy concept and its historical development

In the last 50 years, due to globalization and financial liberalization in the world, radical changes have taken place including political, economic, financial, social and cultural mechanisms. Therefore, it can be said that the emergence, development and increasing importance of financial literacy are due to these rapid and comprehensive changes

While financial literacy strikes the world's agenda in a striking manner due to the impact of the global financial crisis in 2008, the origins and initial foundations of financial literacy are based on the United States in the late 1700s. In 1795, Davit Davles, a clergyman, began collecting his vouchers and carefully following his expenses. Davies saw the difficulties experienced by 6 workers' families because of the huge difference between their incomes and expenditures and for this reason he reported the budget of 135 families in the book of *The Case of Laborers in Husbandry Stated and Considered*. This also shows that; Yet in the 1700s, people began to put emphasis on learning about budget expenditures and financial literacy. The founder of the modern empirical family budget analysis, SierreGuilliane Fredrick Le Play (1806-1882) believed that once a family's income and expense items are analyzed, a researcher may reach all the information about that family. Le Play also gathered information about the social and economic factors that affect the well-being of a family by living with families.

When the Morrill Act was enacted and the Agricultural Department was established in 1862, all states were authorized to establish a "Land Grant" institution. These institutions would train citizens on agriculture, home economics, mechanical arts and other practical work. During the same period, Elen H. Richards formed the "home economy" branch. His work had insight about the rising costs of living standards and the adaptation of habits according to expenses for home-living. At this point an interest was occurred under the umbrella of "home economy" for citizen education on consumption behaviors and budgeting.

In 1900s the financial education movement was supported by many organizations in the public sector. Smith-Lever's law, "The Cooperative Extension Service", was enacted in 1914 in the United States. The basic motivation of this law was to provide people the necessary learning and experience to increase the skills needed at home, in the field

and in the community. This service was sponsored by Four H.Club and aimed at educating young people and citizens using the research results obtained from the agriculture departments of universities.

In the 1950s, 50% of the work in the field of home economics included financial management, income and expenditure, social security and retirement, housing, budgeting and saving money. The whole country had become aware that all these areas should be an essential part of education.

In the 1990s, organizations recognized the importance of providing financial education to their youth today to influence future consumer decision-making mechanisms. Since 1997, Jump Start Coalition for Personal Financial Literacy has been conducting surveys to measure the financial literacy levels of recent high school students. The 52% financial literacy level achieved in the 2005 survey was not a satisfactory score according to many American measurement and evaluation criteria. Moreover, according to these surveys, only 16% of the participants took a course in personal finance during their high school life. The surveys show that students are deprived of knowledge, education and equipment to make wise decisions for their financial future.

Since 2000, in addition to Jumpstart, the US Treasury Department is the leader in taking steps to accelerate development in financial education. The Financial Literacy Training Office was established in May 2002 which has done many the research activities till now. One of the main tasks of this office is to help Americans make more rational choices in such areas as saving money, hosting, retirement planning, and credit management. In addition, through the Treasury ministry, the Financial Literacy and Education Commission has been providing Financial Literacy training to all citizens in the United States.

In October 2002, the Treasury Department published the document "The White Page of the Treasury Department: the integration of financial literacy education into school curricula". This white paper was the result of a panel of major youth education groups in the country and pointed out the need to add additional courses of financial literacy. In this report, 5 areas of financial literacy education are discussed. These areas are textbooks, tests, financial literacy materials, state standards for financial literacy, and teacher training.

One of the most important laws that put financial literacy education into practice is the financial literacy and education law. This law is part of the Fair and Accurate Loan Transfers (FACT) Act of 2003, and according to the law the treasury secretariat has been appointed as the head of the financial literacy education commission. The law also regulates the need to organize the private and public sectors together in order to promote financial literacy training, including the commission of 19 other federal agencies and offices. The law put forward many strategies. One of these strategies, organized by the Treasury Department and Midwestern University, is to develop monetary-based mathematics curriculum.

The curriculum of this association is called "Money Mathematics Life Lessons". The content of this course includes using "real world" personal finance scenarios to teach basic mathematical concepts and basic finance to the students from 7th to 9th grade. These developments have been indicator of the co-operation of private educational institutions and the state.

On January 22, 2008, US President George Bush founded the Presidential Advisory Council (to work on financial literacy training). Members of the Council included representatives from Iowa State University, Junior Achievement USA National Endowment For Financial Education, Charles Schwab Corporation (Company) and many other NGOs and institutions. This council is currently working to increase financial literacy skills of youth and adults.

The first global initiative on behalf of financial literacy was realized by the OECD in March 2008, with the establishment of the International Gateway for Financial Education. The objectives of this institution are; to establish researches, programs and different initiatives for international financial education. Another global movement started with the World Bank's Consumer Protection and Financial Literacy Project, which was established to improve financial literacy worldwide. At the local level, financial literacy agencies have been set up in the United Kingdom (Financial Service Authority, 2000), Canada (Financial Consumer Agency, 2001), the United States (Financial Literacy and Education Commission, 2003) and Australia (Financial Literacy Foundation 2005).

In recent years, activities to bring financial literacy to a healthier and sustainable level have been accelerating in developing countries. In this manner the most extensive program for developing countries is "The Partnership for Making Finance Work for Africa". This program brings together the levels of African states and the private sector to build the financial capacity of Africa. In addition, financial education programs have been launched in more than 40 developing countries with the help of state and civil society.

Large-scale private sector projects are accompanied by various initiatives of state and international organizations. In 2004, Citibank invested \$ 167 million in 73 countries, launching the \$ 200 million Office of Financial Education project, a 10-year program aimed at the development of financial literacy worldwide. In addition, World Savings Bank, one of the largest global banking institutions in the world, has started projects to develop financial education in 16 countries (Kahraman, 2015: 10-14).

3. The Importance of Financial Literacy for Economic Units

Financial literacy has become popular in the financial literature especially since the last global crisis. In addition increasing complexity of financial products, increasing population, income level changes, increasing number of retired people, constantly changing and developing electronic financial transactions and low saving rates of countries are the other causes of the rising importance of financial literacy.

Although it can be said that there is a consensus in the world about the importance of financial literacy, the studies in developing countries are still quite limited (Wagland, Taylor, 2009: p.14). Many domestic and international studies point out that existence of people who obtained adequate financial education is a significant contributor to the sustainability of the financial system and the sustainability of economic growth. Hence today, in the world states are in the process of creating and developing a national strategy to increase the level of financial literacy within its population through financial education throughout their lives (OECD, 2012: 13).

3.1. The Importance of Financial Literacy for Individuals

Today, with financial liberalization all over the world, the increasing diversity and complexity of financial products and services primarily increase the importance of concepts in the financial sector. Therefore, it is necessary for individuals to carry out financial transactions with sufficient level of basic and advanced financial knowledge, accumulation, rational risk analysis and awareness. Individuals with adequate financial literacy have increased awareness on financial issues and can use financial products effectively. Individuals will gain a more rational healthy structure with a conscious financial literacy, budget planning and a sense of responsibility. For example; on the liability side, individuals' carefulness about the use of credit will directly affect their indebtedness. Likewise, on

the asset side, making conscious savings or retirement plans will enable them to have a balanced life plan (Hayta, 2013: 263).

The researches have shown that the problems of the people's debts are generally not due to low income, but due to the lack of basic financial literacy. As the needs of individuals increase, their willingness to use loans increases. However they do not have full knowledge about credit products and therefore some problems are inevitable. Making comparisons between different loan options, selecting the best choice among various credit instruments or distinguishing high-cost products requires some financial literacy (Satoğlu, 2014: 28).

Starting from the second half of the twentieth century, longer retirement periods in line with the increase in people's life expectancy require individuals to make right retirement plans within the highly complex financial system. In order to be able to make strategic choices, individuals need an adequate level of financial information.

However, individuals do not need financial literacy only in making the right savings and investment decisions for themselves, but also in debt management and budgeting. Otherwise, they may be subject to severe financial sanctions or financial fraud by financial institutions (Altıntaş, 2008: 21). The wrong decisions made by individuals due to the low financial literacy level not only have negative effects on their lives, but can also cause disruptions and problems in the flow of financial system. For instance, lacking the habit of saving money would increase the incidents such as bankruptcy and foreclosures which can disrupt the stability of the financial market (Reyes, 2006: 82).

Capuano A. And Ramsey I.'s research on financial literacy in 2011 detected many financial misbehaviors among individuals. These are summarized as follows (Gökmen, 2012: 39);

- Not making enough long-term savings,
- Not making the right budget,
- Not planning the future,
- Making unnecessary expenses,
- Choosing fraudulent financial products,
- Lacking self-confidence,
- Not considering the balance of costs and expenses,
- Ignoring the investment targets,
- Not receiving financial advice,
- Trusting non-professional information sources,
- Not making insurance

According to many research findings, it is emphasized that financially well-informed and conscious individuals are less affected from economic crises (Mitchell, Lusardi, 2015: 9). Individuals with a high level of financial literacy can manage their budget in a more healthy and conscious manner. With this consciousness, individuals have a tendency to save more as they know the importance of saving. Moreover as the knowledge increases in individuals, transferring existing savings to more rational investments (Lewis, Messy, 2012: 16).

3. 2. The Importance of Financial Literacy for Enterprise

While financial literacy is important for all businesses, it is much more important for small and medium-sized enterprises (SMEs), which constitute the majority of enterprises that are regarded as the locomotive of the economy throughout the world. Today, financial literacy is seen as an important tool for the success of enterprises. This is because conscious financial literacy helps understanding and evaluating the information needed to make daily decisions that have financial implications in the day-to-day management of companies (Fernandes, 2015: 4). Conscious financial literacy is important for ensuring that the operations such as using financial products and services, budgeting, borrowing, accumulation and making investment decisions are accomplished in a rational way. On the other hand, the importance of financial literacy is not only limited to the effectiveness and success of their own business (Dahmen, Rodríguez, 2014). If financially illiterate firms cannot sustain their economic existence or shrink routinely, it will undoubtedly have a negative impact on the national economy as well.

Researches and observations have shown that when SMEs are exposed to huge debt, in order to maintain their existence or routine growth, they usually resort to more borrowing instead of getting professional financial consultancy. Findings show that running financial management experts instead of unconscious and inconsistent practices may be the most logical step for the enterprises. However, many enterprises believe that consultancy services are high cost and their financial literacy level is enough. That belief usually gives unsuccessful results like bankruptcies (Rwamwenge, 2015).

Financial literacy levels of the upper management of SMEs are more important than in micro enterprises. Because SMEs constitute the economy's backbone and they play a key role in the growth and success of the national economy. For this reason to improve the performance of SMEs, as well as organizing technical trainings for lower cadres, they should employ upper management staffs who have sufficient level of financial knowledge and awareness (Eniol, Entebang, 2017: 560).

Today low level of financial literacy is expected in all countries of the world. Therefore, it is emphasized that countries should take immediate action in this regard. Because financial literacy is one of the problems faced by individual investors, as well as by managers, companies and countries. It is obvious that there is a greater need for managers and enterprises with high levels of financial literacy both at national and international level, especially in the periods of financial crises (Bay et al., 2014: 37).

Eldeedilen bulgular çerçevesinde, bilinçli bir düzeyde finansal okuryazarlığa sahip KOBİ'nin aşağıda sıralanan temel özelliklere sahip olması gerekir.

Bunlar (The Banking Association South Africa, 2018):

Based on the findings, SMEs with a conscious level of financial literacy should have the following basic features. These are (The Banking Association South Africa, 2018):

- 1- Adequate personal entrepreneurship competence, personal finance skills and the skills of business management,
- 2- Sufficient level of understanding functional financial management systems,
- 3- Optimal understanding of financial resources and other financial services that are needed

- 4- Knowledge of where and how to get the finance and how to make the necessary investment
- 5-To be able to understand and manage financial risks and to find alternative ways and means to control such risks,
- 6-To follow-up and evaluate the legal, regulatory and taxation issues
- 7-Knowledge of legal applications in case of bankruptcy or other financial hardship .

3.3. Importance of Financial Literacy for Financial System

The foundation of the financial system consists of five elements. These are; economic units which supply funds, economic units which demand funds, financial intermediary institutions, financial instruments, regulatory and supervisory agencies and laws. In view of this definition, it is imperative for the individuals to be able to work in a stable manner, to be able to take part in the supply and demand of funds, and to be conscious savings owners and investors. Therefore, it is essential that these economic units have a certain level of knowledge and act rationally in understanding and interpreting the financial system.

Nowadays, with the expansion of the range of financial products and services, the scope of opportunities and risks encountered in financial markets is expanding and its diversity is increasing. In the financial system, it is important that the economic units have the capacity to analyze this information in the direction of their own interests as well as providing qualified information on the products and services. Financial literacy strengthens the ability to make maximum use of financial innovations in spite of the complexity of financial markets. Thanks to the knowledge and skills they possess about financial products, services and concepts, economic units with high financial literacy levels can make more reasonable investment and financing decisions and can manage risk. Thus, an ever-changing and evolving financial system will enable to make financially correct decisions and to analyze the risk-return balance of their decisions.

The financial system with a high level of financial literacy can shape the financial system according to its needs by making an accurate comparison between financial products and services and by analyzing them more effectively. However, the units can put pressure on financial service providers and regulatory and supervisory agencies to ensure the healthy functioning and transparency of the financial system. In addition, the units with high financial literacy levels, who have sufficient knowledge of the financial products and services, indirectly control the financial markets and reduce the burden on regulatory and supervisory agencies for the protection of financial consumers (Karataş, 2017: 11-12).

The complexity in the financial markets and the increasing number of financial instruments may cause individuals with insufficient financial literacy to stay away from financial markets and reduce their trust in the financial system. Individuals without trust will be worried about future and will not exhibit rational behaviors. As a result they will cause volatilities and instability in the market (Mandell, 2006: 1).

The increase in the number of individuals trained in the financial system will help the increasingly complex financial markets to operate efficiently. Individuals with financial literacy increase the competition in the market with better comparison skills on risk-return characteristics of financial instruments with different features offered by many financial intermediaries. The increase in competition in the financial markets will bring about qualified services and innovative developments (Hayta, 2011: 252).

On the other hand, if financial service providers have a significant knowledge advantage on consumers, which is called asymmetric information problem, financial markets will become inefficient. Financial Intermediaries; they may be disadvantaged if they do not provide the necessary tools and information about the financial risks, financial properties, legal terms and conditions. As financial knowledge help competition to strengthen by putting pressure on financial institutions to offer more affordable and transparent services by comparing options, asking the right questions and communicating with financial institutions more effectively. In other words, financial literacy can help to eliminate the unnecessary advantages of financial institutions on their customers by providing a greater balance of information asymmetry between financial institutions and customers / consumers (Barmaki, 2015: 30).

Financial stability is of great importance for both financial markets and the general economy. The negative results that will be caused by financial instability may affect all economic actors, and this instability can be reflected in other countries in a globalized world and can become a systemic risk. The Mexican crisis of 1994, the Asian crisis of 1997 and the global financial crisis of 2008 are very striking examples.

When the effects of financial literacy on financial crises are examined, it can be seen that advanced financial knowledge, skills and awareness limit the spread of financial crises and reduce their effects and, moreover, facilitate the exit from the crisis. In some studies, it has been determined that the individuals who have high financial literacy level have information about the market conditions and dynamics. For this reason they would not overreact against the fluctuations in the financial markets and so that they can contribute to the reduction of volatility.

In this context, the diversification of financial products and services, the increase of both supply side and demand side actors in financial markets and ineffective working mechanisms of the supervision and regulation increase the risks that may arise in the financial system and make the system more fragile. Financial literacy should be provided to prevent the wrong financial decisions (Karataş, 2017: 12-13).

3.4. The Importance of Financial Literacy for the National Economy

Rational financial management contributes to low social spending and the development of effective and competitive markets and sustainable economic growth. Financial experts emphasize the importance of financial literacy as an element of financial stability and the perceived basic life skills of individuals by analyzing scenarios and factors that lead to the economic crisis (Hayta, 2011: 251-252).

Conscious financial literates will contribute to economic growth by supporting the development of the financial sector as an active financial service user. In particular, more informed individuals will be able to evaluate the opportunities created by the domestic market. Therefore, the European Commission has confirmed that financial education is of vital importance in the name of a single market for financial services in the European Union. Financial integrity cannot proceed with individuals who are not financially competent, particularly in the retailing dimension. Moreover, if the level of financial literacy of individuals is increased, the free circulation of service and capital would reach a more satisfactory level (Kosicki, 2008: 4-5).

Many studies have been conducted on the possible impacts of financial literacy on the national economy. For example, according to the results of Van Rooij et al., in 2011, many governments have stated that they are facing with the problem of low retirement accumulation. So a rise in households' savings will have a positive welfare effect not only for households but also for the whole society. Therefore, in both developed and developing countries,

policy makers increasingly understand the importance of financial literacy and allocate resources for financial education programs (Barış, 2016: 16).

In the researches conducted by Sahay et al. it is pointed out that easy access for households to borrowing facilities decreases income inequality. OECD and the World Bank also support the idea that improved financial literacy and easy access to financing resources and savings instruments would contribute to economic growth, financial system stability, income distribution improvement and poverty reduction particularly in developing economies, (Karataş, 2017: 16).). According to the results of another study, the investment decisions of individuals based on their financial literacy levels affect the allocation of resources to be transferred to the national economy which determines the country's long-term potential growth (Widdowson, Hailwood, 2007: 37-38).

Finally individuals who received financial literacy may have a positive impact on the level of investment in the country as they tend to save more (Hayta, 2011: 264). In fact, spreading to the financial base has been developing the process of transforming savings into investments by diversifying the components of the financial system. The increase in total savings and the integration of these savings into the system will be ensured through increased access to the financial system and spread to the base. Furthermore savings held under pillows could be joined in with financial system (CBRT, 2015: 1). Otherwise, in case of low level of financial literacy, the macroeconomic situation of the country would probably get worse; leaving less capital to economic growth, causing inequality in the distribution of income, decreasing the efficiency of the business cycle (İlçe, 2017: 28).

4. Financial Literacy Level of the World

Today in many countries, studies are being carried out by many national and international organizations for public and private sectors in order to measure the financial literacy levels of the general population or groups with certain demographic characteristics. Surveys conducted in many countries by international organizations, in particular, offer the possibility to compare financial literacy levels of similar groups in different countries. These organizations;

1- Global Financial Literacy Center of Excellence (GFLEC) established in 2011 under George Washington University. GFLEC runs a worldwide project called Financial Literacy Around the World (FLAT WORLD).

2- In 2008, Russian Financial Literacy and Education Fund was established under the World Bank by the Ministry of Finance of the Russian Federation. The main target of this organization is to finance the development of resources and information about financial literacy and education in order to strengthen the financial capabilities of different communities in low- and middle-income countries. The Financial Qualification Questionnaire which is carried out by the World Bank is one of the works financed by this fund. The Fund continued to operate between 2008 and 2013.

3- OECD INFE has developed a questionnaire as a reference for decision makers in order to identify the needs of the population, vulnerable groups and the shortcomings in the implementation of the programs for the development of financial literacy and the national strategies to be prepared. This questionnaire provides the opportunity to observe the inter-time changes and provides a basis for international comparisons. These surveys, which were applied to the adult population in 14 countries between 2010 and 2011, are encouraged to be repeated in three to five years and for other countries. The OECD INFE questionnaire was updated in 2015 and translated into 30 different languages and applied to adults aged from 18 to 79 years in more than thirty economies. For countries

participating in the survey for the first time, the survey allowed for international comparisons. In addition the survey provided an intertemporal comparison for the countries which did the application twice.

4- OECD has been organizing an assessment called International Student Assessment Program (PISA) every three years since 2000 in order to measure the knowledge and skills of 15-year-olds in various fields. In 2012, PISA was applied to 510,000 young people in 65 countries / regions and it is stated that the assessment represents a population of 28 million. In the same year, the financial literacy module was applied to 29,000 young people in 18 countries / regions which assumed to represent 9 million people. This module, for the first time in the world, provided the opportunity to measure the financial literacy levels of the young people for comparison.

A number of similar results emerge in research surveys conducted by international organizations worldwide. The main conclusion obtained in these studies is that the level of global financial literacy is very low. The results of the surveys conducted in many countries indicated that consumers do not have enough skills to make simple financial decisions in complex situations, do not have long-term financial plans, and do not have enough knowledge about the concepts of savings and investment. Another result of the survey results is that the level of financial literacy in countries with relatively high income levels is higher than in countries with lower income levels. However all of the levels are still low. Moreover it is emphasized that these levels are related with gender, age, race, ethnicity, and urban or rural life.

When the survey results, which provide quantitative data on financial literacy, are analyzed demographically, consumers with low income and education levels have low financial literacy levels. Women have lower levels of financial literacy than men worldwide. The relationship between financial literacy and age follows a shape of reverse "U". In other words, young people and the elderly have a lower level of financial literacy than the middle-aged.

Geographical, racial and ethnic differences across the world are also influential on consumers' financial literacy levels. Surveys showed that the different levels occur according to countries as well as differences occur according to racial, ethnic origin and different settlements in the same country.

As a final word in this part, according to research conducted in high-income countries financial literacy was directly related to retirement planning, portfolio differentiation, stock exchange participation and credit performance. On the other hand in relatively low-income countries, financial literacy is directly related to facility level for financial access. So it was concluded that individuals had a lower level of financial literacy than they thought. This means that a large population thinks that they have financial knowledge and skills although it is insufficient. As a result they do not have an intention to gain an advantage in these respects. (Karataş, 2017: 27-39).

5. Main Activities for Improving Financial Literacy in the World

Many public / private institutions and organizations across the globe are engaged in various activities, especially financial education, to increase the financial literacy levels of all economic units, taking into account the differences in cultural, demographic and social structures in their countries. Based on the studies in the United States, it is possible to comment that the concept of financial literacy has become a topic in which many countries work on whether developed or not..

In general, for the development of financial literacy at the global level there are three headings of policies determined by national strategies and other enterprises. These are financial conscious borrowing and entrepreneurship, incentives for savings and plannings for retirement, training programs about financial rights and obligations

The financial education programs implemented in countries can target one or more of the different target groups. These programs cover a wide range of topics such as credit, borrowing, entrepreneurship, budgeting, insurance, investment, savings, retirement planning, access to the financial system and the rights and obligations of financial consumers. Some programs focus on only one of these topics, while some programs address more than one topic. A large number of financial education programs aim to reach the general public, while programs for specific target groups are also organized. The target groups of these programs include immigrants, students and school-aged children, teachers and educators, working adults, the unemployed, retirees and the elderly, girls and women, small and medium-sized enterprises and entrepreneurs, low-income sectors, debtor consumers. In addition to these, there are programs aiming at people who are at the major turning points of life such as starting university education, buying a house, getting married, getting a divorce, having a child, being unemployed. In addition, ethnic minorities, disabled people, rural population, different occupational groups (workers, farmers, miners, media workers, etc.), people working in social welfare, illiterate population, university students, credit card users are also some of the specific group targeted by programs.

Cardinally it is claimed that financial habits and attitudes sticks in people' minds at a very young age. In other words, it is accepted that financial education given at an early age is a good opportunity to form the basis of financial literacy. Therefore, financial education programs for the most students and school-age children are found throughout the world. In addition, financial education in the schools of some countries is provided not only to the students but also to the teachers, families and neighbors through a broader community.

While studies on improving financial literacy are mostly provided through general networking sites, social media channels are also widely used. In addition, competitions and media campaigns aiming to raise awareness and interest in printed publications, courses and seminars, video games, mobile device applications, films, are also among the selected methods and tools. In addition, in many countries the days / weeks of money, savings, financial literacy and financial awareness are also noteworthy. The most appropriate format to improve financial literacy and awareness depends on the needs and the target audience (Karataş, 2017: 41-46).

CONCLUSION AND DISCUSSION

In recent years, financial literacy has always been on the agenda due to the increasing national and global financial crises, financial fraud in all countries, increasing number of differentiated financial services and products as well as low saving rates in spite of growing population. Without differentiating between developed and developing countries, countries carry out various financial education and other activities within the framework of research findings in order to increase the financial literacy levels of their economic units. However contrary to the desired upward trend, low levels of conscious financial literacy makes all countries brood on. The probable reasons of this negative situation and possible suggestions as an alternative remedy are listed below.

1-In a globalized world, a rise the financial literacy level of one country is not enough. Positive or negative interaction, where borders have been removed and communication and financial transactions are increasing day by day, is unavoidable. Therefore, it is necessary to act jointly by taking advantage of the accumulations and findings of

experienced countries in activities aimed at determining and increasing the level of financial literacy. In addition, financial literacy research should be conducted more frequently at the global level, and changes in the level of financial literacy should be adapted to financial education and other activities simultaneously.

2- When the activities and national or international institutions that carried out these activities are examined, it is observed that financial awareness of financial units is tried to be formed by means of financial education. These training activities are aimed at raising the level of financial literacy by being supported by other activities. According to the findings of research on financial literacy, it can be said that there is a positive correlation between financial education and achievement. The financial units that receive financial education are expected to be successful in their financial decisions and to be capable of changing their financial behavior accordingly. Also it can be inferred that there is a positive relationship between financial literacy and being wealthy and self-sufficient. However, it is quite difficult to say that there is a systematic relationship between financial literacy and education. This suggests that educated and wealthy people may also need financial literacy training (Cole, Sampson, Zia, 2009: 11). From this point of view, it is of utmost importance that all economic units should be trained by experts and experienced financial trainers in both theoretical and practical manner. It is even more important to initiate these trainings at a young age and adopt them as a state policy.

3-The purpose of financial education programs is to increase the awareness of the target audience on financial issues and thus to change their financial behavior positively. However, developing programs and tools to realize these goals seems to be an important problem today. In addition, how the programs will work and for what purposes will they serve and what will happen to the trained people at the end of the program and how to measure are the questions of debate. For example, it may be difficult to monitor how a person can transform information learned from a brochure or website into behavioral state. In the financial literature, individual differences expressed in the fields of individual finance, behavioral finance and financial psychology affect the success of financial education programs (OECD 2005: 91-92). In this respect, it is of utmost importance to prepare more effective financial education programs at national and international level, to monitor the results and to implement new approaches where necessary. In addition, differentiated individual / group programs should be applied taking into account the demographic characteristics, educational and cultural differences of the participants of financial education. In other words, the training programs should be in line with the personal characteristics of the target audience and their basic interests and needs. However, if there are any obstacles for participation in financial education (accessibility, communication, etc.), the authorities should take appropriate action to resolve these problems.

4-It is important that the trainers who will give financial trainings should be chosen among the people who are familiar with the theories and practices in their fields. Moreover, trainers should be informed according to the demographic, cultural and educational levels of the participants. Communication methods, materials and techniques and technological infrastructure should be provided for the trainers to communicate effectively with the participants. Lastly, the knowledge of trainers should be updated for the new developments about financial literacy in order to realize the desired goals.

REFERENCES

Altıntaş, K.M. (2008). *Bireysel Yatırımcılar Açısından Finansaleğitimin Önemi. Sigorta Araştırmave İnceleme Yayınları.* İstanbul.

- Barış, S.** (2016). Finansal Okuryazarlık ve Bütçeleme Davranışı: Üniversite öğrencileri Üzerine Bir Araştırma. *TESA-MAkademik Dergisi*. 3(2). Sayfa: 13-38.
- Barmaki, N.** (2015). Üniversite Öğrencilerinin Finansal Okuryazarlık Düzeylerini Belirlemeye Yönelik Bir Araştırma: Hacettepe Üniversitesi Örneği. *Hacettepe Üniversitesi Sosyal Bilimler Enstitüsü (Yayınlanmamış Doktora Tezi)*. Ankara.
- Bay, C., Catusus, B., Johed, G.** (2014). Situating Financial Literacy. *Critical Perspectives on Accounting*. (25). Page: 36-45.
- Dahmen, P., Rodríguez, E.** (2014). Financial Literacy and the Success of Small Businesses: An Observation from a Small Business Development Center. *Scholar Commons*. 7(1). Page: 1-12.
- Eniola, A. A., Entebang, H.** (2016). Financial literacy and SME firm Performance. *International Journal of Research Studies in Management*. 5(1). Page: 31-43.
- Er, F., Temizel, F., Özdemir, A., Sönmez, H.** (2015). Lisans Eğitim Programlarının Finansal Okuryazarlık Düzeyine Etkisinin Araştırılması: Türkiye Örneği. *Anadolu Üniversitesi Sosyal Bilimler Dergisi*. Cilt/Vol.: 14 - Sayı/No: 4. Sayfa: 113-126.
- Fernandes, T. I. M.** (2015). Financial Literacy Levels of Small Businesses Owners and its Correlation with Firms' Operating Performance. *Yayınlanmamış Yüksek Lisans Tezi*, Faculdade de Economia do Porto.
- Gökmen, H.** (2012). *Finansal Okuryazarlık*. 1. Baskı, Hiperlik Yayınları. İstanbul.
- Güler, E.** (2015). Hanehalkının Finansal Okuryazarlık Düzeyinin Belirlenmesi Üzerine Bir Araştırma: Sakarya İli Örneği. *Yayınlanmamış Yüksek Lisans Tezi*, Sakarya Üniversitesi Sosyal Bilimler Enstitüsü.
- Hayta, A. B.** (2011). *Aile Finans Sistemi İlişkileri*. Gazi Kitabevi. Ankara.
- İçke, B. T.** (2017). *Finansal Okuryazarlık*. İstanbul: Beta Yayıncılık.
- Kaderli, Y., Gümüş, U. T. ve Eskici, Y.** (2016). Seçilmiş Ülke Örnekleriyle Finansal Okuryazarlığın Önemi ve Tasarruflar Üzerindeki Etkileri. *Leges Hukuk Dergisi*. Cilt: 7. Sayı: 73. Sayfa: 85-122.
- Kahraman, Y. E.** (2015). Erciyes Üniversitesi Öğrencileri Üzerinde Finansal Okuryazarlık Araştırması. *Muğla Sıtkı Koçman Üniversitesi Sosyal Bilimler Enstitüsü (Yayınlanmamış Yüksek Lisans Tezi)*. Muğla.
- Karataş, Ç.** (2017). Finansal Okuryazarlığın Geliştirilmesinde Merkez Bankalarının Rolü ve Türkiye Cumhuriyet Merkez Bankası İçin Bir Değerlendirme. *Uzmanlık Yeterlik Tezi*. Türkiye Cumhuriyet Merkez Bankası İletişim ve Dış İlişkiler Genel Müdürlüğü. Ankara.
- Kosicki, D.** (2008). Internal Market & Services DG, European Commission. Financial Education Policy of The European Commission. *Microfinance Europe EMN's Bi-Annual Magazine*. 4. Page: 4-5.
- Lewis, S., Messy, F.** (2012). Financial Education, Savings and Investments: An Overview. (Accessed: 18. 09. 2018).
- Mandell, L.** (2006). Financial Literacy: If It is So Important, Why Is Not Improving? Networks Financial Institute at Indiana State University Policy Brief.
- Mitchell, O., Lusardi, A.** (2015). Financial Literacy and Economic Outcomes: Evidence and Policy Implications. (Accessed: 19.10.2018). <http://gflec.org/wp-content/uploads/2015/12/Financial-Literacy-and-Economic-Outcomes-Journal-of-Retirement-Summer-2015.pdf>

- OECD.** (2012). Measuring Financial Literacy: Results of the OECD / International Network on. Financial Education (INFE) Pilot Study. <http://dx.doi.org/10.1787/5k9csfs90fr4-en> (Accesed: 07.10.2018).
- OECD.** (2005). Improving Financial Literacy Analysis of Issues and Policies: Paris: OECD Publishing.
- Remund, D.L.** (2010). Financial Literacy Explicated: The Case for a Clearer Definition in an Increasingly Complex Economy. *Journal of Consumer Affairs*. 44(2). Page: 276-295.
- Reyes, R.** (2006). The Psychological Meanings of Money. Yayınlanmamış Doktora Tezi. Alliant International University. ABD.
- Rwamwenge, J.** (2015). Why financial literacy matters for small and medium enterprises' Growth. <http://www.newtimes.co.rw/section/read/195085/> (Accesed: 12.07.2018).
- Satoğlu, S.** (2014). Bireysel Yatırımcıları Koruma Aracı Olarak Finansal Okuryazarlık ve Türkiye Uygulaması. Marmara Üniversitesi Bankacılık ve Sigortacılık Enstitüsü (Yayınlanmamış Doktora Tezi). İstanbul.
- Shawn, C., Sampson, T., Zia, B.** (2009). Financial Literacy, Financial Decisions, and the Demand for Financial Services: Evidence from India and Indonesia Harvard Business School, (working paper).
- TCMB. (Türkiye Cumhuriyet Merkez Bankası).** (2015). Tasarruf Yatırım Dinamikleri ve Cari İşlemler Dengesi Gelişmeleri. Ankara.
- The Banking Association South Africa** (2018). SME Financial Literacy in South Africa. <http://www.banking.org.za/what-we-do/sme/sme-financial-literacy-in-south-africa> (Accesed: 19.10.2018).
- Vitt, L.A., Anderson, C., Kent, J., Lyter, D. M., Siegenthaler, J.K. Ward, J.** (2000). Personal Finance and the Rush to Competence: Financial Literacy Education in the U.S. Lois, Institute for Socio-Financial Studies (ISFS). www.isfs.org/documents-pdfs/rep-finliteracy.pdf (Accesed: 11.09. 2018).
- Wagland, S. P., S. Taylor.** (2009). When It Comes to Financial Literacy, Is Gender Really an Issue?. *Australasian Accounting Business and Finance Journal*, 3(1). Page: 13-25.
- Widdowson, D., Kim H.** (2007). Financial Literacy and Its Role in Promoting a Sound Financial System. Reserve Bank of New Zealand: Bulletin. 70(2). Page: 37-47.
- Xu, L. ve Zia, B.** (2012). Financial Literacy Around the World: An Overview of the Evidence with Practical Suggestions for the Way Forward. The World Bank Policy Research Working Paper, No. 6107.

10

THE INTERRELATION OF EFFICIENCY STAKEHOLDER AND ORIENTATION IN MANAGEMENTS

Dr. Mehmet Güven¹

INTRODUCTION

It is seen that managements support a lot of new techniques which are Human Resources Management and Total Quality Management keeping pace with the fluctuation, being successful in this competition and maintain their essence in the increasing competition in these days.

In our age, change and developments gain steam and their effects rise to the occasion in working life as well. They have to follow new changes, comply with new terms and conditions and spontaneously follow developments producing goods and services. Otherwise, they will hard up to submit themselves to the law of competition. The managements need to attach more importance to education subject in order not to encounter these kind of situations. Before entering working life, although nevertheless the education taught in schools is well planned, when it is put into practice, it is not enough for the area. Matters come to existence in transitional period of working life because of the differences between working conditions and taught topics in school after education period is completed. There is requirement for a well-designed orientation training to minimize these matters (Yelboğa A,2010:)

Every organization want to increase new worker's contribution to total productivity within the shortest time. Therefore, the organisation tries to abridge adaptation time and getting to know the organization. The applications of orientation training applied within this framework provide to increase the productivity by shorten the time of worker's adaptation to the work and organisation. The worker's adaptation to the work and organisation can recognise with applying and designing of orientation training according to self. Or else, orientation training wouldn't be nothing but waste of time both for organisation and for the worker.

In this paper, the aims of orientation training are to provide the high level of loyalty to the management, increasing productivity of those attending already, and theoretically revealing that Orientation training has an important place in meeting the worker's expectations. The goal of this theoretical study is that orientation training is a model revealing the associational connection between stake-holders and productivity and interrelation in theoritical, practical and expectative applications and also this activity creates awareness on the basis of managers and enterpreneurs. In this scope, it is important to provide the necessary precautions by evaluating the observations of participants in education. Whether the goals of Orientation training determined in advance. Orientation training, it is significant to contribute to the success and productivity of managements in the scope of worker's evaluations whether there is any difference before the workers acquire information and after they learn about job and organization (Tiyek,R.2014:533-354).

¹ Bingöl University

CONCEPTUAL FRAMEWORK

ORIENTATION TRAINING

Definition of Orientation Training

It is aimed to adapt to organization and work, to gain ideational and physical skills, to acquire information and attitudes required for new workers, and it is a French word “orientation” meaning to direct and to guide and having Turkish pronunciation “oryantasyon”. At the same time, it is aimed both to train and to learn the work as correcting mistakes, asking questions, and checking whether the worker obey the information taught or not².

Orientation trainings matter to the development and preservation of organizational memory, and continuation of the current order in managerial. Orientation is a conducted programme for providing adaptation of the worker to organization and work by introducing organization’s physical and governing structure, corporate culture, mission, co-workers to the new worker taken into service. Orientation programme is not only toward new worker but also, it is applied to the worker attained other department and branch by using internal service. (Aliyeva,2007).

Briefly, orientation can be defined as the adaptation progress that enables the new worker or the worker transfer another mission to acquire attitude and skill needed in working life, to reach in the shortest time the degree of productivity and wanted activity and the workers development. As it is understood from the definitions, the aim of orientation is to reduce the cost and develop the quality of service by providing acquirement of attitude, skill and information that the worker performs. (Kaya,2007:25-29)

As a new worker can start with management position, he can also work at the lowest level. In such a case, the training activity activity to be taught to this new worker according to his level and the mission to be taken into service differs from. For instance, while the information to be given to those who have no relationship with management is related to how to perform a certain mission, those who have relation with management position should be trained in the light of executive subjects. (Günay,2010). In this situation, instructions increasing skill and craft knowledge appropriate to the mission to be taken on a task should be taught to the worker in each position. However, on the nail, the worker in each position and the management has common features as a necessity of working position should go through an orientation training progress. Due to orientation training, they learn general information about work, get to know their co-workers, gain knowledge about work culture and they acquire the vision, mission and targets of management. As the new worker may not have work experience and may be a newly graduated person, he may also have experience of working in the same job or the same industry beforehand. In both situations, those starting to work in management should be provided with orientation training.

In work life, one may come across a plenty of problems that can’t be resolved with theoretical knowledge taught at school. To resolve such problems, the worker taken into service should be subjected to orientation training primarily, and again in the working process, both personal growth education and education related to increase the related to increase the level of craft knowledge should be taught in the meantime. In the first workday, whether the worker is experienced or not, he faces with unfamiliar situation and he feels that he has to adapt the situation. A new job, new environment, producers and new co-workers can make them more timid and shy. Psychologists claim that the new workers should generally be behaved in a better way and sympathetically. They argue that the

2 (www.kariyer.net/ik-blog/haftanin-atama-haberleri-25/)

workers behave feelingly until they they do their best and the employers should not ignore this situation because of the lack of information and mistakes to occur. (Elmer,H,Burackve Robert,D.1982:523-524)

The new worker taken into service needs knowledge related to three main topics, these can be ordered in the following way (Deniz,N.1999:45-47).

- The policies, traditions, regulations, expectations and standards of management.
- Mode of management accepted in management, environment, co-workers and managers who they are.
- Technical features of the work to be done.

The process of orientation training can change according to types of mission and from the management to management. At the end of the process, the new worker is expected to make more effort for the goals of organization and he becomes more comfortable and reliable. (Günay,2010).

Aim of Orientation Training

The aim of training is to rise worker's satisfaction, productivity and organization performance as a whole. Considering that on this sense, Professional Orientation Training trained to new workers draws more attention and undertakes a key role in terms of increasing of individual's productivity. (Kevser,A.1999:10-17)

In the service businesses, the situation that service quality is determined by customers necessitate to present the service appropriate to expectations and demand of customers in the place and time they desire. To recognize, this qualified transvectors who prefer management's interest to theirs are needed. Orientation Training enables managers and wage earners to have the opportunity to reconcile in workplace environment and intimacy between them. (Emir,O.ve Avan,A.2010:123-142)

The goals of a training programme are determined based upon the needs of organization beside individual's needs, and in accordance with targets of organization and management. Owing to council consisting of managers and workers, this training may come into existence by means of observations, informal interviews, meetings and a proposal system. In these managements, there are different targets like improving sense of responsibility in the worker and solving the problems for educated worker and developing team working and communication (Karagöz,D.2000:TEZ).

Orientation training is seen as the most increasing methods of productivity used in embracing corporate culture and adapting the worker to the workplace environment. Organisation's success is in direct proportion to worker's productivity and motivation. When being alone with their work, the workers realize that something is not as easy as seen. It is qualified that the situation that new graduated workers encounter in clinical applications causes trouble on physician assistants (Baker, D,SandGray,S. 1992:501-506).

Orientation process has some targets but the main target is to enable new workers to adapt their environment and new works. There are some ways to provide this (Bingöl,2013).

- Orientation process has some targets but the main target is to enable new workers to adapt their environment and new works. There are some ways to provide this (Bingöl,2013).

- Leaving a positive impression at the beginning: The first work day for new worker is of importance. The experiences gained at first day may influence the working life in the next years. A negative event to happen at the first work day can lead the management to lose the worker as well. In this sense, Orientation programme has a great importance.
- The Enhancing acceptance between individuals: One of targets of Orientation programme is to remove sense of ability and loneliness in worker's mind in other words, it is to create sense of us which means to make the worker to socialise with other personals. By this way, the worker taken into service is accepted and embraced by veteran staff.
- The increasing Individual and Organizational Performance: The effective Orientation programme focusing on the target diminishes the adaptation problems of the worker taking into service already by creating sense of belonging, sense of trust, and security. Thus, the new staff is provided with loyalty to the targets and values of organization. This matter can be largely interfered in an Orientation programme created with a well prepared context to gain staff.

Stages of Orientation Training

Preparing the new staff for the meeting, meeting, describing the activities of the unit they will be working with, introducing them to the colleagues, explaining the features of the workplace, giving general information about the business, providing services about the services that the staff can provide and the information about the work is average a week. How to create the orientation program, the methods to be used, the size of the workplace, the conditions of employment, and the facilities owned by the company, the number of employees, the quality of the personnel and the training varies. The orientation program should be considered within the framework of a plan. The steps for how to do this are given below (Bingöl, D.2013).

- Preparing to Meet New Staff
- Meet New Staff
- Real attention to new staff
- Giving Information About Business
- Explaining the Functions of the Unit
- Report the Rules of Work
- Introducing New Staff to Colleagues
- Teach New Personnel Work as follows
- To Watch

Scope of Orientation Training

Issues related to the scope of orientation training vary from business to business. The fact that the size of the enterprises, the strategic goals and objectives, the quality of the product or service, the importance given to the orientation training and the time given to the new employee to recognize the business are the few factors causing this change. However, the subjects included in the orientation training applied in most enterprises can be listed as follows. (Phillips, Jack J.1987).

- **Date, Objectives and Mission of the Company:** The time, where and how it is established, the areas where it operates, the successes, structure, objectives and mission of the company should inform the new employee. The short and long-term plans of the enterprise and the levels of the existing departments in the organizational structure of the enterprise and the levels of competence of the individuals responsible for these departments and the position of the unit in which the new unit will work within the general structure of the enterprise are also included in this category.
- **Products and Services Produced:** information about the product or service produced in the enterprise. This information includes the products or services produced, how they are provided and the differences with the competing products or services. This information should be provided by visual tools such as catalogues, pictures and brochures. Reinforcing the training with such visual stimulants will help the employee to recognize his / her job and place, thus improving the performance of the business.
- **Policies and Procedures in Enterprise:** This section, which can be quite extensive for large and complex enterprises, includes workflows, product processes, personnel policies, accounting practices, rules and issues that may affect the new employee such as office discipline.
- **Employee Benefits and Services:** Services such as health and life insurance, permits, holidays, retirement programs, training opportunities should be explained to the new employee in the orientation education. In addition, information should be given about how the payment system will be in the enterprise.
- **Content of the Work:** Positive and negative attributes, work programs, work rules, overtime conditions, reporting to whom and all other substances affect the content of the work. Informing the new employee about the content of the work will reinforce their sense of responsibility for their work and increase work efficiency.
- **Expectations:** Business habits, performance, work ethics and other features that are included in the orientation training of the company are the expectations that are required for the success of the new employee. In addition, prospects for potential career opportunities, equal behaviour and wage increases should be submitted to new staff by the company.

Orientation Program Application Methods

Many institutions are developing well-established new orientation programs that create a difference. In the recent years, two orientations on the methods of implementation of the orientation program have been pointed out. One of the most important challenges faced in the traditional orientation approach is the time taken for a number of institutions to be recruited by a staff member into an orientation group. This may take three months in some institutions. This brings various risks. For such reasons, online orientation is an important tool for the provision of information for institutions. According to a study, online orientation organizations say that they prefer online orientation due to their benefits such as providing timely orientation to all employees regardless of start date and effective use of time. Although online orientation seems attractive, there is no scientific study that it is considered to be the best practice yet. In the online orientation, it is not possible for employees to meet face-to-face and with a warm contact, to meet with other colleagues they start to work with and to witness a common synergy. For this reason, face to face and group orientation is preferred by many institutions. When online orientation is used alone, there is a risk of insufficiency in establishing an interpersonal relationship. However, when online orientation and group orientation are used together, the results can be impressive. Both methods can be combined

and presented, the time loss in group orientation and communication in the online orientation and eliminates risks so on (Westwood, R.2003:www.trainingreport.ca).

Training Process of Orientation Program

The unit responsible for the human resources management of the organization is obliged to introduce the workplace to its personnel, to introduce it to the friends, to introduce the equipment to be used and to explain the personal rights, duty powers and responsibilities, and the rules to be followed within the institution. Personnel are obliged to participate in this program and show interest in what is described throughout the program. Some of the subjects covered in the program can be carried out at work or in physical places, but a significant part of it takes place in orientation training (Topaloğlu, M and Sökmen, A. 2003: 126-151).

In this section, the content of the orientation training, the creation of the orientation training material, the orientation training responsible, determination of the orientation period, the orientation training to determine the training and orientation training will be discussed.

Creating the Content of Orientation Training

When creating the content of the orientation training, corporate policies, priorities of the institution, procedures and the topics to be needed by the personnel should be taken into consideration (Altuntaş, 2010). During the orientation process, participants get more efficiency than using different learning methods; instructor's expression, monitoring of processes, touching products. Orientation training is important in terms of adapting the people to the environment before the personnel starts to work.

Creating Orientation Training Material

With the orientation programs, the personnel who are new to the institution will be able to dominate the processes at the workplace and work place and to participate in the work life with full performance. It is extremely useful to provide a printed material with all the subjects described while performing this through a variety of methods. If this is achieved, the personnel will be able to find answers to the questions put in mind. No matter what method is used in the orientation training, everything that the staff needs cannot be taught. In this sense, it is useful to distribute a document in the orientation education. This document can be in the form of a well-designed, content-rich Orientation Manual designed to carry with the staff. In the orientation process, the material to be given to the staff should include the following: Welcome, message of the top manager, the history of the organization, the organization chart, the physical characteristics of the institution, the sketch for easy access if the institution is distributed over a large area, information about the units in the institution, the rules to be followed, mission, vision and values, occupational safety issues and social opportunities (Bingöl, D 2013).

Determination of Orientation Training Officer

As long as the structure of the enterprise does not reveal another situation, the responsibility for orientation training is in the human resources department in general. An entity that has completed the necessary processes for the orientation should assign an employee to be responsible for the orientation in order to carry out the program effectively. It is necessary to determine who is responsible for orientation training or even who are responsible for

orientation training before planning. All managers and employees in the enterprise are part of the training and should be expected to support this process. However, a successful orientation program has a lot to do with the first manager responsible for the new employee. The attitude of the first managers directly affects the success of the orientation program. Because the new employee, the first manager in the first plan as a symbol of the business (Günay, 2010).

Determination of the Duration of Orientation Training

The orientation period is the period for the newly recruited employee to get to know his / her work place and his / her friends to work together. This period varies between two weeks and six months depending on the size of the enterprise, the complexity of the work done, the risks and the situation of the employee. Orientation training takes 1-2 days in many organizations and takes place in 10-15 day programs in enterprises with a more professional human resources management. In some institutions, there is no clearly defined orientation program. Employees learn many things about the business with the guidance of the department manager and with the help of colleagues (Kocabacak, 2006).

Determination of the Educators of Orientation Training

The first managers should be aware of their responsibilities due to the burden of the orientation program. Otherwise, the program may not be successful despite all efforts. For this purpose, it is useful to have the first managers undergo a serious training before the program is put into practice. However, it is of great importance that the persons responsible for carrying out the orientation training are chosen from among those who can easily adapt to the innovations and communicate effectively with different people (Çalık, C 2006: 1-10).

Implementation of Orientation Training

Although the Human Resources Directorate / Coordination Department is responsible for the orientation education, another unit may be responsible according to the structure of the institution. All kinds of preparations must be completed for a complete training program. The appropriate room for the training is a suitable method for inviting the participants and educators, the materials to be distributed in the training and the refreshments during the training (tea and coffee), etc. must be available. At this stage, the recruitment phase of a newly recruited staff has been completed, the preliminary meeting has been made and the rules of the institution, the rules, duties, powers and responsibilities, personal and social rights are discussed. An important pillar of the orientation process is education and it is carried out as a program that lasts 1-2 days (Kocabacak, 2006).

EFFICIENCY FROM CONCEPT

In the most general way, the efficiency that expresses the relationship between the various factors (inputs) introduced into the production process and the products (outputs) obtained at the end of this process means that they are far from extravagance and by evaluating the resources in the best way.

Therefore, technical efficiency is defined as “the ratio between the quantity of goods and services produced and the inputs used in the production of this quantity of goods and services” and is usually formulated as output / input (Prokopenko, 2005: 19-22).

However, changes in the definition of productivity have also begun to change as a result of the fact that the areas outside the economy are increasingly subject to review and the countries are at the forefront of their agendas. Efficiency is now considered together with efforts to improve the quality of products and services, to protect the environment and the natural structure, to provide the best living and working conditions for employees, and to increase the production per unit input. In terms of total productivity, it is possible to define efficiency as a combination of various production and environmental factors and technological, economic and organizational capabilities.

Productivity is a widely used performance criterion because of its ease of use in most enterprises and a simple criterion (Akdeniz, 1998: 85-99).

Productivity is perceived in various ways by different disciplines. Some of these opinions are as follows (Ramsay, 2008: 17-20):

Economists' opinion: Efficiency is the relationship between the output and the inputs used to produce it when the input and output are expressed as physical quantities.

Engineers' opinion: According to engineers, the effective operation of a machine.

According to accountants: Accountants deal with the performance of businesses through the analysis of financial ratios and financial statements.

Managers' view: Managers look at the concept of efficiency from different perspectives. Quality and quantity, hourly output, activity, absenteeism, quitting, job satisfaction, profit, level of competition, government, incentives etc.

Importance of efficiency in terms of Enterprises

- To measure the overall performance of the business, compare it with competing companies and determine strategies
- To control and improve performance at business unit level
- To ensure that production capacity, resource requirements and cost estimates can be made in accordance with budget objectives
- To improve working life (Preceding: 2013).

Increase in Efficiency

- Development and deployment of research and development and production methods (implementation of new technologies)
- Product simplification and development; variety reduction; value analysis etc. Application of such techniques
- Getting new machinery equipment, tools, etc.
- Development of organizational planning and control functions
- Development and deployment of process methods
- Increasing the labour force utilization rate in each stage (Öncel: 2013).

- There are four stages of any productivity improvement process (Öncer, 2013):

There are four stages of any productivity improvement process (Öncer, 2013):

1. **Acceptance:** Accept the need for change and development.
2. **Decision-making:** Accept the need for improvement and take action.
3. **Opportunity identification:** There must be opportunities to implement decisions.
4. **Action:** Plans to achieve efficiency as a final goal should be implemented.

Types of Efficiency

Efficiency measurements; a single input (partial efficiency), multiple inputs (multiple factor efficiency) or all inputs (total efficiency) can be made. Which of these efficiency measurements will be used depends mainly on the cause of the measurement. If the reason is to monitor the developments in labour productivity, the labour force will be used as an input measure. With the partial efficiency calculation, it is possible to determine the degree to which each factor should be interfered. Partial efficiency measures such as labor productivity (output / labour) and machine efficiency (output / machine) are frequently used by enterprises (2006: November).

Partial Productivity: Output / Single input

Partial Productivity = Output / Workforce

Multiple Factor Productivity: Output / Multiple Inputs

Multi-Factor Productivity = Output / Labour + Machinery

Total Productivity: Output / All inputs

Total Productivity = Output / Labour + Machinery + Capital + Raw Material + Energy

Partial productivity shows the average productivity of the production factors. All production factors are taken into account when calculating the total factor productivity. Each of the factors of production is included in the calculation with specific weight (Yavuz, 2003: 13-16). Thus, multi-factor efficiency is the calculation of the efficiency of multiple production factors.

1.2.4. Principles of Efficiency:

- The right product / service
- Right time
- The right amount
- At least cost
- In accordance with customer expectations
- To create higher added value
- Considering human resources
- It is produced without damaging the environment (Büyükkılıç, 2004: 44-46).

POSSIBLE STAKEHOLDERS EFFECTING EFFICIENCY

Concept of Social Stakeholder

Enterprises are now in a relationship with many different segments of society and their success depends on good management of their relationship with these elements. In the literature, the concept explaining this issue is called social stakeholder (Aktan and Börü, 2007: 18).

The social stakeholder is the person or groups that affect or are affected by the organization's achievement (Freeman et al. 2007: 6). In other words, social stakeholders are individuals and institutions with interests from enterprises. All sectors directly and / or indirectly affected by the activities of an organization can be considered as social stakeholders (Aktan and Börü, 2007: 18).

Social stakeholders are individual / institutional investors, employees, potential employees, existing and potential customers and the whole community who are interested and interested in the institution (Kadıbeşgil, 2007: 187).

Social stakeholder concept; it also refers to the person or groups in the internal relations system, including the organization, which encompasses or influences the organization's achievements (Çakır, 2009: 54).

According to Freeman, who develops stakeholder theory, social partners are groups that have a value in business or demand from business. That is, whether or not benefit from business activities; defines people and groups whose rights are violated or respected as 'social stakeholders' (Tak, 2009: 48).

The social stakeholder may be 'those who are affected or affected by the institution or who have the potential to influence or influence the institution' and 'those who have financial, political, membership, informational, symbolic and spiritual interests in the organization and who advocate these interests through official, economic and political forces. Also known as 'groups' (cited in: Gümüş and Öksüz, 2009: 26-39).

Stakeholder and public terms are often used interchangeably, but there is a subtle distinction between the two. People are referred to as stakeholders because they are in a category affected by the decisions of an organization or because their decisions affect that organization (Grunig, 2005: 139). The importance attached to them on the peoples is more important because they have more special attention and power, actuality and potential. For stakeholders, the level of interest and impact is relatively low and general (Davis, 2006: 104).

The concept of social stakeholder comes to the fore as a basic idea in terms of understanding the relationship between businesses and society and is based on two important principles. The first one is not to harm the rights of any person and the second is related to the responsibility of the effects of the activities resulting from the activities of the organization (Tak, 2009: 47).

Businesses should not focus on their activities, not only on the owners and partners, but also on the benefit of a group or factor; in addition, they must perform all of the system they are in, in other words, to protect the interests of all stakeholders (Gültekin and Küçük, 2004: 345).

The profitability of a company depends on its relationship with various groups such as consumers, investors, workers and suppliers. All different social stakeholder groups should be represented in the board governing the company (Kelly et al., 1997: 23).

In terms of communication strategy, corporate identity, corporate perception and reputation should be followed on the basis of the organization's social stakeholders. There are differences between the subjects and values that each sector is sensitive to. Therefore, priorities should be calculated on the basis of each social stakeholder.

Perceived perceptions of the social stakeholders are the most important indicators for the decision-making process of the institution. Social stakeholders' purchasing of the products and services of the institution, investing in the institution, buying the shares of the corporation and showing the behaviours such as working in the institution, enables the institution to reach its business goals (Kadıbeşegil, 2007: 187).

Types of Social Stakeholders

It can be said that businesses need to put their stakeholders into a certain classification in order to fulfil their obligations towards their stakeholders in the most effective manner.

The identification of each stakeholder for institutions is not only in the context of protecting the skills and resources they acquired in order to protect their assets, but also being surrounded by a network similar to the spider web created by the different stakeholders of the organization, and trying to ensure the flow of resources within this network, to control the interaction with them, It is important for them to have and to have the power to affect the lives of their organizations especially with respect to reputation (Çakır, 2009: 55).

According to Freeman, the stronger the relations with non-enterprise groups, the easier it will be to achieve the common goals, otherwise it will be difficult to achieve common goals as relations worsen. This approach constitutes the basic proposition of stakeholder theory. Stakeholder theory is primarily a concept of strategic management and its purpose is to help the organization strengthen its relations with the internal and external environment in order to develop a competitive advantage (Aktan and Börü, 2007: 14).

It is possible to classify stakeholders in two groups as internal stakeholders" and external stakeholders Pay. Internal stakeholders; the founding parent consists of the owners, shareholders, investors, managers and employees. The external stakeholders are composed of people such as society, government, customers, suppliers, and competitors, media (Aktan and Börü, 2007: 14).

It is also possible to classify stakeholders as stakeholders that will be closely and directly affected by the organization and that the impacts will be indirect or longer-term or non-existent (cited in Akmehmet, 2006: 38).

According to Mitchell, stakeholders are subject to a distinction according to the importance given to them (Ertuğrul, 2008: 199-223):

a) ConfidentialStakeholders (Low-Level Interest Group)

It is the stakeholder group that has only one of the features that constitute the basis of the analysis. Therefore, managers are less interested in this group and do not make too much efforts for them. Secret stakeholders are divided into three groups among themselves:

- Ineffective Stakeholders: Stakeholders in this group have the power to get their requests accepted, but their demands are not legal and are of no importance.

- **Optional Stakeholders:** Although optional stakeholders have legal rights, they do not have power and their demands are of no particular importance.
- **Stakeholders in Demand:** The demands of the stakeholders in this group are important, but they are not sufficient for the realization of their demands since they lack the power and legal rights.

b) Expectant Stakeholders

Stakeholders in this group have both of the stakeholder characteristics at the same time, and therefore take precedence over the business compared to the confidential stakeholders. Stakeholders with expectations may be examined in three groups as dominant, dangerous and dependent stakeholders:

- **Dominant Stakeholders:** This group, which must be in the area of interest of the management, has the power to affect the business in order to fulfil its legal rights and demands. Shareholders and creditors are the most important dominant stakeholders.
- **Dangerous Stakeholders:** Stakeholders in this group who have the same characteristics of importance and power at the same time, but whose demands are unlawful, generally use illegal methods (strikes, terrorist acts, sabotages, etc.) to fulfil their wishes.
- **Dependent Stakeholders:** Stakeholders are important and legal stakeholders but who do not have enforcement power. Examples of stakeholders in this group include: For this reason, it can be given to the people who are right and important, but who do not have the power to put pressure on the enterprise.

c) Actual Stakeholders

Stakeholders are considered as the ultimate stakeholders of the enterprise. The final stakeholders have all three qualifications mentioned, so business managers address this group's expectations in an urgent manner and strive hard to be satisfied.

A different classification of stakeholders was made by Dowling. According to Dowling, stakeholders are divided into four categories (cited in: Akmehtmet, 2006: 39):

- Normative groups** authorize the organization to operate and determine which general rules and regulations should be carried out. Government agencies, local committees and environmental groups may impose restrictions on the scope and scope of activities of an organization.
- Functional groups** directly affect the organization's many daily activities. This stakeholder group makes the work done and the services provided to customers easier. Employees, trade unions, suppliers and retailers are examples of functional groups.
- Common groups** are groups of stakeholders who are interested in the organization and protection of the rights of people. Issues such as freedom of information, information privacy, the environment, minority rights, and equal opportunity for work can be of interest to these groups.
- Customer groups** constitute the most important stakeholder group. What the customers think of should be known by the institutions. Customers need to know what the organization does, why they do it, and what it means for them.

Personnel

Employees are the most important stakeholder group affecting the reputation of the organization and constitute the intellectual capital of the organization. Employees are the external side of the organization and they are highly effective on corporate reputation as they are in direct contact with the customer (Karaköse, 2007: 64).

If employees identify themselves with the institution, they work better, which strengthens the corporate culture. When employees lose their faith, the organization loses its name well. To a certain degree, perceptions are based on what employees say about the organization. Therefore, employees rank first among reputation equality. Therefore, getting the support of the employees is very important for the continuation of a strong reputation (Dörtok, 2004: 63).

The responsibilities of the institution to its environment, and the ethical behaviour of the employees towards the employees ensure that the employees are satisfied with the place they work. The employee who is happy wants to complete his / her personal development and contributes to the institution with his / her behaviour (Akmehmet, 2006: 44).

The reputation of the institutions with the employees is possible with the effective communication policy of the organization. The following are the points to be observed in communication applications for employees (Theaker, 2008: 236):

- Establishing a system to inform and inform employees about corporate activities and policies
- Management sets up one-to-one communication activities each month with a different employee group
- Establishing a weekly system of informing employees
- Receiving feedback by including applications that appreciate employee success

Confidence in the service and products of an organization cannot be achieved without the contribution of employees. Employees serve as the best source for the organization and in this respect, the corporate reputation in the eyes of employees is always important. In addition, as employees directly affect the company's business results, how employees express their services and products affects the perception of other stakeholders (Şatır and Sümer, 2006: 51-62).

Human capital refers to the sum of human elements such as knowledge, skills, abilities, experience, intuition and attitudes of people within the organization. In other words, the enterprise is a set of values, skills and experiences that employees have. The success of the company depends on the employee's knowledge, skills, motivation and business capital. Developing this capital can be realized by giving importance to the ideas of employees and listening to their suggestions for business development (Akın, 2010: 107).

In order to determine how the employees want to work in the future, to increase their motivation and employment, and to increase their commitment to their jobs, the enterprises should determine what they should do and take initiatives in this direction (Ertuğrul, 2008: 214).

Establishing healthy communication within the organization will positively affect members' trust in each other. In this respect, it is necessary to keep communication channels open and available. Nowadays, gaining the trust of employees should be a priority issue for managers in the conditions of continuous fluctuations (Asunakutlu, 2006: 24). When employees lose their faith, the organization loses its name well. To a certain degree, perceptions are based

on what employees say about the organization. Therefore, employees rank first among reputation equality. For this reason, employees should obtain information about the institution directly from the institution (Dörtok, 2004: 63).

The value of an organization is determined not only by looking at financial resources, but also by taking into consideration some non-material values. As an intangible value, the brain power that the organizations have in mind should come to mind. The most important reason for this is the success of the trained brain power in producing and marketing information. Therefore, organizations that invest in intellectual capital, ie employees, can guarantee their present and future success and strengthen their corporate reputation (Karaköse, 2007: 64).

Shareholders / Investors

For a shareholder, the main purpose of the business is to maximize its present value in the long term and therefore the financial performance of the enterprise is important for the satisfaction of the shareholders. Investors; while making investment decisions, they prefer to invest in enterprises that respect the environment, protect the rights of their stakeholders and act within the framework of ethical values. There are three types of behavioural preferences regarding investors' ethical behaviour. The first of these choices are those that ignore ethical behaviours. Another investor behaviour is to not invest in enterprises that care about ethical values and include ethical values among their general policies. In the last group of investors, there are investors who actively support the ethical behaviour of enterprises (Ertuğrul, 2008: 214).

The general characteristics that investors seek in their institutions are as follows (Kadıbeşegil, 2002: 4):

- Quality of products and services,
- Placing customer satisfaction policies in the corporate identity,
- Having qualified human resources,
- Ensuring employee satisfaction
- Having financial credibility,
- Implementation of policies to use resources efficiently,
- Determining the concept of corporate social responsibility.

It is very vital for the institution an ongoing trust in management and future estimates. Financial surprises and corporate traumas can undermine the trust of investors and shareholders. Direct damage occurs per share. In addition, indirect damage can reach for products and services in the market exceedingly. In professional service companies, regular communication with investors and shareholders is created. Communication with these shareholders is as important as traditional communication tools (Dörtok, 2004: 64).

Companies that aim to grow continuously need to find a source. This, in other words, stock markets, which bring companies together with investors, are the factors that accelerate growth. A company that wants to attract investors should keep good relations with current investors and have a good image in the eyes of their potential investors (Theaker, 2008: 287).

Nowadays, the size of the enterprises and the opening of the public have revealed the existence of a large number of shareholders. No matter an entity is managed in accordance with the interests of its shareholders, it will be

affected and be responsible for the consequences. The primary responsibility of the entity to its shareholders is to be profitable. In this sense, besides being profitable, being transparent and sharing information about the business are the primary responsibilities of the enterprises towards the shareholders (Ergenç, 2010: 17).

Investors who are a stakeholder group, like other stakeholders, consider the institution only through financial results. Six factors that constitute the basis for the measurement of corporate reputation play an important role in investor relations all of which are emotional attractiveness, quality of products and services, vision and leadership, working environment, financial performance and social responsibility. Investor relations should be discussed more extensively (Ergenç, 2010: 21).

Customers

Customers are the people or organizations that buy and sell products and / or services that are offered to the market and who are closely interested in their quality and quantity (Kocabaş et al., 1999: 85). One of the most important factors that create corporate reputation is customer satisfaction. Today's customers are able to reach the information they want by means of advanced communication facilities, and they can get the best quality and cheapest of the products they need. The extraordinary developments in communication technologies have enabled customers to be more conscious of their choice of products and organizations. Organizations that expand the customer range and give importance to customer satisfaction can achieve corporate success by achieving a significant competitive advantage (Karaköse, 2007: 75).

The positive relationships established between the organization and the customer are an important factor for the establishment (Odabaşı, 2009: 1). Customer satisfaction, enthusiasm and loyalty are the most talked about concepts in enterprises. These are key words that express the preconditions for a company operating in a competitive environment to survive and achieve all its objectives. Any business that cannot provide customer enthusiasm and loyalty cannot survive. Therefore, managers and all employees should always think and act customer-oriented. Each decision must first be assessed for the customer and applied only if it makes sense to and benefits from it. A decision or practice that does not create value for the customer will not benefit the enterprise (Barutçugil, 2009: 11).

Customers are the focal point of business activities as they are the buyers of the products they produce and the services they offer, in other words they are the demand-creating group. Changing customer demands are a factor that drives businesses to innovate and mobilize against competition in the market. In line with the customer demands, the companies are taking the initiative to revise their internal balances and capabilities and reorganize. In some cases, customers who are considered as stakeholders of the enterprise are limited, and in some cases all segments of the society are considered as potential customers (Ertuğrul, 2008: 213).

One of the necessary tools for the enterprises to obtain the profit which is the main objective is to ensure customer satisfaction. The customer should be considered as an investment that can create value through mutual relations and not as individuals or organizations with temporary relations. Service to the customer should be the company's main philosophy in the company's mission. The reason for existence and the difference is to be service-oriented to the customer (Akin, 2010: 97-98).

Customers should have good feelings and confidence about the business. Firms with high esteem penetrate to customers more emotionally. There is a kind of emotional attraction between them. Quality includes providing

after-sales support for customers. Customers who receive goods and services from the company to give higher prices and repeat purchases from the company shows the reputation of the company (Akin, 2010: 170).

The importance given to customer relations and the success achieved are a step forward for the future. Therefore, it is important to collect, analyse and use customer based information. Organizations that allocate sufficient resources to customer relations, redesign the organizational structure in this direction, and provide full support of the managers and employees make positive progress (Demirel, 2007: 121).

Customers need to know what the organization does, why they do it, and what it means for them. Customers do business with the institution they trust. Regular, sure, bi-directional communication forms the cornerstone of a good and trusting relationship. Informing customers is the basis for gaining trust and doing business (Dörtok, 2004: 63).

Ensuring customer loyalty is vital for an organization. Because if there is no target group where the product or service produced can be presented, there will be no input. In such a case, it would be impossible for the organization to survive. Organizations that involve their customers in every aspect of organizational learning will achieve an effective competitive advantage by meeting their expectations through their reactions and feedback, and will maintain and strengthen their corporate reputation (Karaköse, 2007: 78). It is not possible for an organization with a bad relationship who cannot establish a positive communication with its customers and to reach its goals (Kocabaş et al., 1999: 85).

Society

The concept of society, which is included in the broad definition of business stakeholders, is not clear. When the society is mentioned, it is necessary to include all the identified stakeholders in this group. For example, governments that are a single stakeholder and have serious demands on the enterprise can be examined within this group. Society provides the environment that businesses need to do business. For this reason, all shareholders have certain responsibilities to the society. The most important of these responsibilities are taxes to be paid to governments. The taxes that the business pays on time are the most important indicator of their responsibilities towards the stakeholder. One of the main objectives of proactive enterprises is to ensure that the business environment is the winning party. This is usually possible by taking into account the benefits of all members involved in the production process. It is one of the most important questions that are answered in terms of the responsibilities of the society. Some authors conducting research on business ethics are examined in three groups according to their behaviour towards society (Ertuğrul, 2008: 215).

Group I: Enterprises that are determined by the local government and do not fulfil their basic responsibilities such as tax payments, providing health insurance for employees.

Group II: Enterprises that are required to be carried out at minimum level in order to avoid the boycotts, legal sanctions and negative reactions of consumer associations.

III. Group: Enterprises that fully fulfil their responsibilities and contribute to society. They play a constructive role in social progress.

The society expects enterprises to balance not only commercial success and employment, but also environmental quality and social justice. The main objectives of the relations with society are; To inform the society about the

products, services and policies of the institution, to correct the wrong information about the institution, to create a positive impression, to determine the qualities and expectations of the society, to prepare social culture, education and health projects and to support the economy with all these (Ergenç, 2010: 23).

Media

Today, many businesses are under the power and influence of the media. The fact that communication opportunities increased rapidly, equal opportunity for accessing any information, and accessibility to media channels and media tools made the media an important stakeholder to consider. Thanks to the media, the awareness and interest of the business or a product can be increased in a short period of time, while the problems in the wrong policies or relations can bring with them unexpected problems. Therefore, the effect of the media on the institutions is increasing day by day³.

International, national and regional media play an important role in all kinds of communication activities of an institution which wants to take part in contemporary economy successfully. The main purpose of relations with the media is to increase the reputation of the institution and its products and to inform the stakeholders by informing them (Şakar, 2011: 63).

The media has a significant impact on shaping the public's view of events, and it affects the impressions of stakeholders about the importance of events. It is necessary to establish good relations with the media and to introduce the media to the media in order for the stakeholders to believe about the institution and the facts to be the same. There are several ways to contact the media. Some of these are press releases, press conferences, virtual press conference, interviews, company trips, photo shoot invitations (Theaker, 2008: 211).

Management of corporate credibility should not only take into account the management of relations with key stakeholders, but also how each stakeholder affects the other. In this context, the media has a different position from other stakeholders and acts as a bridge between the institution and other stakeholders (Şakar, 2011: 64).

It is necessary to monitor what communication tool is published and how it is published by following the news materials written or published in regular relations with media members. The information request of the media about a matter related to the establishment should be answered as soon as possible and the principle of integrity and honesty should be considered in all relations with the media (77). People and organizations perceived as a true and healthy news source by media employees create trust (Aydede, 2004: 21).

Government

Governments are another stakeholder in business decisions. Nowadays, the dimensions and limits of the relationship between governments and enterprises have become more evident. In this structure, the state becomes clear; is an arbitrator who provides fair competition and interferes with those who do not comply with the rules. In addition, the effects of possible decisions taken by governments on business strategies are too great to be ignored (Aktan and Börü, 2007: 18).

³ www.mskongre.org.

Representatives of the parties that have contributed to the formation of the political structure of the country are the groups that are investigating whether the investments designed by the management of the organizations are compatible with the realities of the country, approving or criticizing the actions taken and sometimes suggesting that these actions may contribute to the social good (Kocabaş et al., 1999: 92).

The relations of institutions with national and local politicians, local authorities and influential groups are of great importance for their reputation (Şakar, 2011: 66). Good relations with the regulators and the executives provide benefits to enterprises in many areas. In this sense, lobbying activities, supporting government campaigns are important starting points (Çiftçioğlu, 2009: 65).

Enterprises try to win favour of the government, creating a close connection with the government, which is one of the elements of the external environment of them, and to create more suitable environments for their own activities (Ergenç, 2010: 22). The elected and appointed civil servants (especially law regulators) also want to be in a relationship that creates a common benefit with the institution. They need to be shown that the organization gives importance to social responsibilities (Dörtok, 2004: 64).

Competitors

All organizations that carry on their activities around an organization are competitors of each other (Kocabaş et al., 1999: 87). Competitors reduce the share of the company in the market yet benefit the business in terms of introducing the product to the consumer, awakening the interest and creating product awareness. The competition provides optimal conditions for both buyers and sellers. In addition to the balancing position in the market, there are some expectations of the enterprises within the framework of competition. The most important expectations of the competitors is to prevent excessive price competition and to prevent erasure attempts from the market with illegal agreements (Ertuğrul, 2008: 215).

The institutionalized reputation provides high gain because it is hardly imitated. Despite the high cost with high reputation firms doing business is a belief that the work will be fulfilled at the time of commitment. Therefore, reputation is an invisible value that competitors cannot immediately copy (Akin, 2010: 172).

Companies that want to survive in today's competitive environment or even want to have a positive image, should follow closely their competitors and their works and they should evaluate their studies and direct their own works. It provides positive developments in commercial issues and also encourages enterprises to provide social benefits as well as developing relations with competitors through these works, goods, service production, quality, job satisfaction and so on. (Kocabaş et al., 1999: 87).

Suppliers

Suppliers are the companies that provide goods or services to the institution, vocational schools providing trained personnel, companies that perform insurance services, financial institutions providing money and loans, and other companies and institutions supporting the execution of similar activities. The importance of the suppliers is due to the quality of the materials and services they provide to the institution and the fact that they play an active role in increasing the competitiveness of the institution⁴.

⁴ (www.canaktan.org).

One of the most important questions regarding the suppliers, which is one of the stakeholders of the enterprise, is which suppliers will work and what criteria will be taken into consideration during the selection. One of the most important expectations of the suppliers from the main enterprises is the financial support and the timely payment of payments. Suppliers can be seen as a source of innovation in terms of the core business, which means that production will be more efficient. In addition to their innovative characteristics, being a reliable business partner is an important factor in the success of the parent (Ertuğrul, 2008: 215).

If a regular relationship is established with respect to suppliers and expectations are communicated, they become the most important source of reputation. They collect and bring information about suppliers, competitors and the wider environment. Topics such as who has problems, who has difficulties in payments can be learned (Fourok, 2004: 64).

Establishing good relations with raw materials and service providers is important for the continuity, reliability and quality of the goods to be purchased. These elements are also important in terms of public relations activities that try to create a positive image in the organization's environment. In order to maintain their assets, businesses must provide regular and high quality products. Therefore, these inputs should be provided regularly. In addition to providing goods and / or services for firms, suppliers also have other benefits, such as providing funds, providing information and supplying labour. In cases where this information is not provided for the company to maintain its existence, sales may decrease and the market share may be diminished or completely disappeared due to the inability to deliver the goods to the market and the image of the company may be damaged. Therefore, the relationships based on trust between suppliers and the company will ensure the continuity of the company's quality activities (Kocabaş et al., 1999: 86).

POSSIBLE RESULTS OF ORIENTATION EDUCATION WITH STAKEHOLDERS AND EFFICIENCY

Enterprises know that they are obliged to use the resources efficiently and effectively in order to make the most of the resources available, to compete and to achieve sustainable growth. One of the best arguments to achieve this goal is to bring the employees in line with the job, to train and to improve the working environment ergonomically. The longer the employees are left in the working environment, the more work is going to decrease the lost work time and the higher the working efficiency. Frequent reports and the presence of employees in the infirmary will reduce working efficiency and reduce work efficiency. For this reason, they see that their investments in the business world return to them as more business gains. Providing a peaceful work environment, creating a sense of belonging to employees and keeping team spirit in the forefront, giving them hope for the future comes to the fore as motivating elements. Ensuring the participation of the employees in the business process and their participation in the decision making and planning functions by asking their opinions positively affects the working efficiency. They should be able to work in order to achieve business objectives and to be able to work in order to achieve them. For this purpose, it should be able to reach the target with all the stakeholders and increase the contributions of the employees. A successful business; a higher profit, which is a common goal of all internal and external stakeholders, is a happier business environment and achieving acceptable growth.

The recruitment training of newly recruited personnel is of great importance for the organization and the national economy. Research has shown that there is a very close relationship between the adaptability and productivity of the personnel. If there is harmony between the skills and personality of the personnel and the requirements of the

job, the satisfaction level that the staff will get from the job will increase and the efficiency will increase. Uneasiness in the form of absenteeism, which cannot adapt to the job, will most likely result in his abandonment of his job. When such a training process is not taken and the support required by the new staff is not shown, the person who is making great efforts to enter the institution can leave his / her job or break his / her mental connection with his / her job. The fact that the hired persons leave the institution shortly after, is a loss for the institution. In order to reduce this loss, a training exercise is required (Ataklı, 1992).

The person who enters into training is gradually taking and accepting organizational values, beliefs and traditions. In the socialization process of the organization, the organizational culture and values are integrated and integrated with the personality of the individual. As long as the employee is integrated and integrated into the new environment, their skills will have the opportunity to develop in the best direction. Beginning from the first days following the recruitment of the new employee, the training of the trainers plays a role in regulating and adapting (Tınaz, P. (2006: 25-36). In addition, when hiring exercise programs are considered in terms of department officials, it is not necessary for them to take the time to teach the job. A well-structured job training has great benefits for both the new employee and the business. Because such a training exercise helps them to get closer to their expectations on both sides.

The purpose of the training practice for new employees is to provide them with a good start in their business and to provide a smooth transition on their way to becoming a colleague. Because a new job means new colleagues, a new business culture, a new working order and new relationships. The ability of the individual starting to work in the enterprise can show the expected performance in a short time and it can be realized in a short time. However, most of the times, one of the most important problems for beginners is the real shock. This shock is caused by the difference between the realities of the individual and the realities of working life (Memduhoğlu, 2010: 137-153).

As productivity is the ability to create added value from a product demanded in the field of production or service, the increase in productivity will be possible by the use of new technologies or by the efficient use of resources. Developing technologies in today's enterprises, new business methods, reorganization of organizational structures, applied to reduce the cost of organizational structures in order to increase the efficiency of all kinds of work is done.

Enterprises can improve their productivity, improve business processes and reduce costs. The creative and innovative structures of enterprises in a sustainable competitive environment increase the high efficiency. Productivity, which may increase in parallel with the use of information technologies in production enterprises, does not show a certain increase in service enterprises only depending on information technologies. Together with the use of information technologies, the change in the work processes of the employees, their behaviours and their individual quality can play an important role in the efficiency of service enterprises.

Stakeholders are persons, groups, organizations or systems that may be affected or influenced by the results of an organization, institution, or company's activities, objectives, policies. Stakeholders are important for understanding the relationship between businesses and society. Stakeholders can be legal and legal persons with legitimate rights in the organization, as well as anyone who has a connection with what the organization does. Businesses should not only act in the interests of the owner and the partners, but also to protect the interests of all stakeholders. It must fulfil its obligations towards its stakeholders in the most effective manner. The stronger the relationship with the internal and external environment of the enterprise, the easier it will be to achieve common goals.

Enterprises that can identify the expectations of stakeholders and meet these expectations in ever-changing competition conditions will have a longer life span than other enterprises. Although the determination of stakeholder expectations that guide the future of the enterprise is so important, it is not easy to identify them. In particular, expectations of stakeholder groups responding to social, economic and legal changes must be continuously identified and met.

Finally, it is expected that internal and external stakeholders will create economic value for businesses in today's enterprises. A new business idea that will respond to a problem or market demands of stakeholders should be a pioneering role in developing a method or a new product. For this reason, a new business idea that has been transformed into economic value, or a new idea based on technology or invention, will be the most important power for businesses.

REFERENCES

- Akdeniz, A, And Durmaz, F.(1998) "Verimliliğingenelperformansüzerindekiyansımalarınınuygulaması", Journal Of Faculty Of Economics And Administrative Sciences, V:Xiii, No: 2, Pp.85-99.
- Akin, Mustafa Şeref (2010).Görünmezdeğerler (1.Edition). İstanbul: Kitapdostupublications
- Akmehmet, Duygu (2006). Kurumsalitibaryönetimivebiruygulama, Ma Thesis, Marmara University Institute Of Social Sciences, İstanbul.
- Aktan,Çoşkun Can Andbörü, Deniz (2007). Kurumsalsosyalsorumluluk (1.Edition). İstanbul: İgiadpublications
- Aliyeva A. (2007) Turizmsektöründe insane kaynaklarıyönetimindeeğitimvebiruygulama.Yıldızteknikuniversity, Institute Of Social Sciences Ma Thesis, İstanbul.
- Altuntaş H. (2010) Oryantasyonprogramlarınınyeterlikdüzeylerineyöneliköğretmenadaylarınıngörüşleri.Gaziüniversitesiinstitute Of Education, Ma Thesis, Ankara.
- Ar, İ. M.(2006) Verimlilik: Nasıl 2, Woodwork Journal, Oct. / Nov.
- Asunakutlu,Tuncer (2006). Çalışanlar İle Yöneticilerarasındagüvenduygusununaraştırılması. Journal Of DokuzeYL University, Institute Of Social Sciences, 8 (4), 16-33.
- Atakli, A.(1992). Verimliliğiçinişalıştırmaeğitimiveönemi, Journal Of Productivity
- Aydede, Ceyda (2004). Profesyonelbirilişki: Medyavehalklailişkiler (1. Edition). İstanbul: Rotapublications
- Baker S. D. Andgray-Starnar L. (1992) Internorientation: Obstacle Oropportunity. Journal Of Americandentalassociation 92(4): 501-506.
- Banerjee,Subhabratabobby (2007). Corporatesocialresponsibility: Thegood, Thebadandtheugly (1st Edition). Cheltenham: Edward Elgar Publishing Limited
- Barutçugil,İsmet (2009). Müşteriilişkilerivesatışyönetimi (1.Edition). İstanbul: Kariyerpublications
- Besler,Senemandsarıkaya, Muhammed. Kurumsalitibariyaratmadakurumsalpaydaşyönetimivemedy İle İlişkilerinönemi. ([Http://Www.Mskongre.Org/Doc/Senembesler.Doc](http://Www.Mskongre.Org/Doc/Senembesler.Doc)). Access Date: 25.01.2012.
- Bingöl D. (2013) İnsankaynaklarıyönetimi.Beta Publications, Erzurum.
- Büyükkiliç, D. (2004) Karamacığütmeyenörgütlerdeverimlilik, Mpmyayını, No:680, Ankara.

- Çakır, Tülin (2009). Kurumsal itibar-Örgütsel dokümantasyon ilişkisine kuramsal bir yaklaşım: Paydaş teorisi. Peer-Reviewed Journal Of İstanbul University Faculty Of Communication (39), 49-64
- Çalık C. (2006) Örgütsel sosyalleşme sürecinde eğitimde değişen rolün önemi. Journal Of Kastamonu University Faculty Of Education 14(1): 1-10.
- Çiftçi, Aydem (2009). Kurumsal itibar yönetimi (1. Edition). Bursa: Dora Press And Distribution
- Davis, Anthony (2006). Halkla ilişkilerin abc'si (1. Edition). (Trans Byümitşendilek). İstanbul: Media Cat Books
- Demirel, Yavuz (2007). Müşteri ilişkileri yönetim ve bilgi paylaşımı. İstanbul: Iq Kültür Sanat Publications
- Deniz, Nevin. Global Eğitim, 1. Basım, İstanbul: Türkmenbookstore, 1999.
- Dönmez, Dilek (2008). Paydaş teorisi çerçevesinde otel işletmelerinin seyahat acentaları ile ilişkileri ve otel işletmelerinin performansları arasındaki ilişkiyi yönelik bir araştırma. Management Journal Institute Of Business Economics (61), 91-112.
- Dörtok, Arın (2004). Kurumsal itibarınızdan kaçınırsanız? (1. Edition). İstanbul: Rota Publications
- Elmer H. Burack and Robert D. Smith, Personnel Management, John Wiley & Sons Inc., New York, 1982, S. 523.
- Emir O., Avan, A. (2010). Otel işletmelerinde işe alım eğitimi: Ankara'da bir araştırma. Journal Of Productivity, 2, 123-142.
- Ergenç, Emre (2010). Kurumsal itibar yönetiminde liderliğin rolüne bir araştırma, Ma Thesis, Marmara University Institute Of Social Sciences, İstanbul.
- Ertuğrul, Fatmanur (2008). Paydaş teorisi ve işletmelerin paydaşları ile ilişkilerinin yönetimi. Journal Of Erciyes University Faculty Of Economics And Administrative Sciences, (31), 199-223.
- Freeman, R. Edward, Harrison, Jeffrey S. And Wicks, Andrew C. (2007). Managing For Stakeholders: Survival, Reputation and Success (1st Edition). London: Yale University Press
- Grunig, James E. (2005). Halkla ilişkiler ve iletişim yönetiminde mükemmellik (1. Baskı). (Trans Byelifözsayar). İstanbul: Rota Publications
- Gültekin, Nihat and Küçük, Ferit (2004). Kurum imajı açısından paydaş memnuniyeti. Journal Of Marmara University Faculty Of Economics And Administrative Sciences, 19 (1), 335-347.
- Gümüş, Murat Andöksüz, Burcu (2009). Turizm işletmelerinde kurumsal itibar yönetimi (1. Edition). Ankara: Nobel Publications
- Günay F. (2010) Oryantasyon eğitiminin örgütsel bağlılığa olan etkisi. , Ma Thesis, Marmara University Institute Of Social Sciences, İstanbul.
- Günay F. (2010) Oryantasyon eğitiminin örgütsel bağlılığa olan etkisi.
- Hasangürak, "Küreselleşmenin gereği nedir? Doğrudan yabancı yatırımlar, Verimlilik ve gelir dağılımı", [Http://www.bilgiyonetimi.org/cm/pages/Mkl_Gos.php?Nt=409](http://www.bilgiyonetimi.org/cm/pages/Mkl_Gos.php?Nt=409)
- [Http://www.canaktan.org/yonetim/kurumsal-kultur/kavram.htm](http://www.canaktan.org/yonetim/kurumsal-kultur/kavram.htm), Access Date: 02.12.2011.
- [Http://www.era-research.com/era/era_main_detay4.asp?id=8](http://www.era-research.com/era/era_main_detay4.asp?id=8). Access Date: 27.02.2011
- [Http://www.mpm.org.tr/verimlilik/](http://www.mpm.org.tr/verimlilik/)

[Https://Danismanim.Wordpress.Com](https://Danismanim.Wordpress.Com)

Kadıbeşegil, Salim (2007). İtibaryönetimi (3.Edition). İstanbul: Media Cat Books

Kadıbeşegil, Salim (2008). Krizgeliyorum Der (3.Edition). İstanbul: Media Cat Books

Karagöz, D.(2000). İşletmelerdeışgücüverimliliğininarttırılmasındaëğitiminrolüvebiruygulama. Unpublished-
ma Thesis, Marmara University Institute Of Social Sciences, İstanbul.

Karaköse,Turgut (2007). Kurumlarındna'sıitibarveyönetimi (1.Edition). Ankara: Nobel Publications

Kaya H. (2007) Hemşirelikteoryantasyoneğitimi. İstanbul ÜniversitesiFlorancenightingale Journal Of Nursing
15(58): 25-29.

Kelly, Gavin, Kelly, Dominicandgamble, Andrew (1997). Stakeholdercapitalism (1st Edition). London: Mac-
millanpress Ltd.

Keser,Aşkın. İşletmelerdemeslekioryantasyoneğitimiveverimlilikilişkisi, Uludağüniversites Department Of La-
bor Economics And Industrial Relations, Journal Of Power, Industrial Relations And Human Re-
sources, V. 1, S. 1, 1999, Pp. 10-17

Kocabacak A. (2006) İnsankaynaklarıëğitimindeoryantasyon: Perakendeciliksektöründe biruygulama. Selcuk
University Institute Of Social Sciences Ma Thesis, Konya.

Kocabaş, Füsun, Elden, Mügeveyurdakul, Nilay (1999). Reklamvehalklailişkilerdehededefkitle (1.Edition). İstan-
bul: İletişimpublishations

Memduhoğlu,H. B.(2010). Örgütsel sosyalleşmevetürkeğitimsistemindeörgüsel sosyalleşmesüreci. Journal Of
Yüzüncüyl University Faculty Of Education, 5(2), 137-153

Mustafaöncer- İşletmelerdeverimlilikvekalitegeliştirmeteknikleri

[Http://Www.Eco.Rug.Nl/Gdc/Dseries/Siid_Frontpage.Shtml](http://Www.Eco.Rug.Nl/Gdc/Dseries/Siid_Frontpage.Shtml)

Odabaşı,Yavuz (2009). Satıştavepazarlamadamüşteriilişkileri yönetimi (7.Baskı). İstanbul: Sistempublications

Okay,Aydemirand Okay, Ayla (2007). Halklailişkilervemedy (4.Baskı). İstanbul: Media Cat Publications

Özemersoysal N. /Www.Kariyer.Net/Ik-Blog/Haftanın-Atama-Haberleri-25/

Phillips, Jack J. Recruiting, Training Andretraining, New Employees, San Francisco: Jossoy-Bassinc., 1987.

Prokopenko, J.(2005). Verimlilikyönetimiuygulamalı El Kitabı. Ankara: Milliprodüktivitemerkezipublishations.

Ramsay, M.R. (2008) İşletmeverimliliğiölçümüveuluslararasıışgücüverimliliği elkitabı, Mpmppress, No:705. An-
kara.

Şakar,Nurdan (2011). Kurumsalitibarveparadigmalar (1.Baskı). İstanbul: Beta Publications

Şatır,Ç. Fulya E. (2006). Kurumitibarınınbileşenleriüzerinebiraraştırma: Sağlıkhizmetleriüretenbirkamukuru-
munda içpaydaşlarıitibarınasılalgılıyor?. İi. Ulusalhalklailişkilersempozyumubildirilerkitabı. 27-28
Nisan. Kocaeli: Kocaeliüniversitesipublishations, 51-62.

Tak, Bilçin (2009). İşletmelerinsosyalsorumluluklarıvepaydaşgrupları İle İlişkilerininyönetimi (1.Baskı). İstan-
bul: Beta Publications

Theaker, Alison (2008). Halklailişkilerin El Kitabı (2.Baskı). (Trans By Murat Yaz). İstanbul: Media Cat Books

- Tinaz, P. (2006). Hizmetiçi eğitim sonuçlarının değerlendirilmesinin işletmeler açısından önemi. Peer- Reviewed Journal Of Marmara University Institute Of Social Sciences, 7(26):25-36
- Tiyek R. (2014) Oryantasyon eğitim program etkinliğinin değerlendirilmesi: Bir araştırma. Journal Of Çankırı-karatekin university Institute Of Social Sciences, 5(1): 333-353.
- Topaloğlu M. And sökmen A. (2003) İşe alıştırma (Oryantasyon) Eğitiminin etkinliği ve performans ile ilişkisi-neye yönelik araştırma. Journal Of Gazi university Faculty Of Commerce And Tourism Education 2: 126-151.
- Üzeyme Doğan- Üretim işlemleri yönetimi)
- Westwood R. (2003) Orientation: Taking It Online And the Trend To Blend. The Training Report, [Http://Www.Training Report.Ca](http://www.TrainingReport.ca).
- Yavuz, İ. (2003) Verimlilik ve etkinlik ölçümüne yeni yaklaşımlar ve illere göre imalat sanayinde etkinlik karşılaştırmaları, Mpm Press, No: 667, Ankara.
- Yelboğa A. (2010) Yönetimde insani kaynakları çalışmaları. Turhan bookstore, Ankara.

CONTEMPORARY APPROACHES IN BUSINESSES

The only thing that doesn't change is change itself.
Heraklitos

Developments in information and communication technology, human-centered philosophies, globalization, and increasingly complex organizational and labor structure have forced to change the management thought. It became impossible to survive for businesses which can not attune the changes. Businesses are re-questioning their traditional marketing approaches, reviewing their methods and priorities, and showing more interest in productivity, profitability, control, measurement and evaluation topics. Globalization and developments in information and communication technologies have influenced the business manners of businesses. Especially, accounting, finance, marketing and management functions are highly influenced by this process. In this context, in this study, the possible effects of contemporary approaches in business administration on each of the business function.

CONTEMPORARY APPROACHES

IN BUSINESSES