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PREFACE

The complexities surrounding the globalization and the interconnectedness of nations are creating challenges for nation-states as well as other newly formed political structures. Innovative social, political, and economic structures are being formed and existing structures are being re-formed to adapt to these challenges. This conference brought experts from around the world to share their research and experiences in social sciences, business and economics, technology, and more.

This conference was jointly held with the International Conference on Humanities and Educational Research (ICHER) 2017 and the Assembly of Turkish American Association's (ATAA) 37th Annual Turkish Leadership Conference. This was provided an opportunity for ICBES and ICHER attendees to follow ATAA's panel sessions and promote additional cultural exchanges.

The conference proceedings present some of our scholarly discussions that took place. We hope these scholarly conversations continue to inform each other and facilitate our understanding of the complex world we live in.

Table of Contents

RELATIONSHIP BETWEEN EXECUTIVE COMPENSATION AND COMPANY PERFORMANCE: FROM THE EMPIRICAL EVIDENCE TO THE CASE OF BP PLC by Abdullah Alhossini, University of Denver, alhossini.a6@gmail.com.....	6
RELATIONSHIP BETWEEN GENERATIONS OF ENTREPRENEURS AND ENTREPRENEURIAL TRAITS by Ihsan Eken, University of the Incarnate Word, eken@student.uiwtx.edu.....	7
VENTURE-BACKED START-UPS IN SILICON VALLEY: THE MOTIVATIONS OF VENTURE CAPITALISTS TO INVEST by Sara Mariam, University of the Incarnate Word, emami@student.uiwtx.edu.....	8
ECONOMIC CHALLENGES FACING THE CONSTRUCTION OF WASTE WATER TREATMENT PLANTS: A CASE OF KERMANSHAH, IRAN by Reza Davoodi, PhD Student in Environmental Health Engineering, Tehran University of Medical Sciences, Iran. Reza_yello_2000@yahoo.com	9
DOMESTIC WATER SUPPLY PROJECT FROM TURKEY TO TRNC: DEVELOPMENT AND A PROPOSAL FOR ITS MANAGEMENT by Assoc.Prof. Elif Colakoglu, Ataturk University, elifco@atauni.edu.tr.....	10
DEFINING COMMITMENT: HOTEL INDUSTRY SWITCHERS TO HOTEL INDUSTRY LEADERS by Bandar Altalhi, Texas Tech University, bandarusa@live.com	11
TENSION POINTS IN EFFORTS AIMING TO SYNTHESISE LIBERALISM AND CONSERVATISM - Conservative Liberalism: Is Oxymoron a Statement or a Balanced Synthesis? by Ihsan KURTBAŞ, Assist.Prof.Department of Political Science and Public Administration, Ardahan University, Turkey kurtbasihsan@hotmail.com.....	12
MANAGERIAL CRISIS INFORMATION SYSTEMS MODEL: KEY SUCCESS FACTORS OF CRISIS INFORMATION SYSTEMS by Assoc. Prof. Jaffar Alalwan, Institute of Public Administration.....	13
EMIRATIS' SUPPORT TOWARDS A MAJOR AND A MEGA EVENT: GRAND PRIX FORMULA 1 AND EXPO 2020 by Nataša Slak Valek, Zayed University	14
MANAGERIAL CULTURAL INTELLIGENCE AND CORPORATE ENTREPRENEURSHIP by Harun Yıldız, Kafkas University, Turkey, dryildizharun@gmail.com and Gülbey Karataş, Ağrı İbrahim Çeçen University, Turkey, gulbeykaratas1@gmail.com	15
THE RELATIONSHIP BETWEEN FEAR OF MISSING OUT AND CYBERLOAFING ACTIVITIES by Harun Yıldız, Kafkas University, Turkey, dryildizharun@gmail.com	16
THE CONSEQUENCES OF ABUSIVE SUPERVISION: BURNOUT WORK FAMILY CONFLICT AND TURNOVER INTENTION by Bora Yıldız, Istanbul University, Faculty of Economics, Department of Business Administration, borayildiz@istanbul.edu.tr and Emre SEZİCİ, Dumlupınar University, emre.sezici@dpu.edu.tr	17
EFFICIENT AND REVENUE MAXIMIZING UNIT-PRICE AUCTION PROCEDURES by Yumiko Baba, Aoyamagakuin University, yumiko.baba@gmail.com.	18
WHEN OVERQUALIFIED EMPLOYEES EXHIBIT ORGANIZATIONAL CITIZENSHIP BEHAVIORS? IT DEPENDS ON CONDITIONAL FACTORS by Bora Yıldız, Istanbul University, Faculty of Economics, Department of Business Administration, borayildiz@istanbul.edu.tr... ..	19
PROTESTANT BUSINESS ETHICS AND MODERN BUSINESS LIFE by Assist. Prof. Muhamed Kursad Timuroglu, Ataturk University, timuroglu@atauni.edu.tr	20
A SURVEY DEVELOPMENT STUDY FOR EVALUATING USABILITY OF E-COMMERCE WEBSITES by Dr. Guler Erkal Karaman, Ataturk University, Turkey, guler.karaman@atauni.edu.tr; Assist. Prof. Fatih Yildirim, Erzurum Technical University, Turkey fatih.yildirim@erzurum.edu.tr; Assoc. Prof. Ersin Karaman, Ataturk University, Turkey, karamanersin@gmail.com and Sumeyra Demir, Ataturk University, Turkey, sumeyracoskun0@gmail.com.....	28

ACCESSION TO WORLD TRADE ORGANIZATION AND ITS IMPLICATIONS FOR TRADE DIVERSIFICATION AND ECONOMIC ACTIVITY – EVIDENCE FROM SAUDI ARABIA by Fayq Al Akayleh, Ph.D., College of Business Administration, Al Yamamah University, Riyadh, Saudi Arabia, bsbann@gmail.com.....43

US FOREIGN POLICY TOWARDS CENTRAL ASIA AND THE KEY ROLE OF KYRGYZSTAN by Asst. Prof. Dr. Elnur Hasan Mikail, Kafkas University, Kars, Turkey, emikail@turansam.org and Res.Asst. Cavit Emre Aytakin, Kafkas University, Kars, Turkey70

HUMAN CAPITAL OF BOARDS OF DIRECTORS AND INNOVATION: AN EMPIRICAL EXAMINATION OF THE PHARMACEUTICAL INDUSTRY by Stephen V. Horner, Pittsburg State University, shorner@pittstate.edu and Alix Valenti, University of Houston-Clear Lake, valenti@uhcl.edu...76

EXPLORING THE EFFECT OF LEADER MEMBER EXCHANGE (LMX) LEVEL ON EMPLOYEES PSYCHOLOGICAL CONTRACT PERCEPTIONS by Prof. Dr. Atilhan Naktiyok, Ataturk University, Department of Business, Erzurum, Turkey, anakti@atauni.edu.tr and Mehmet Emirhan Kula, Erzurum Technical University, Department of Business, Erzurum, Turkey, emirhan.kula@erzurum.edu.tr.....102

PREDICTIVE MAINTENANCE METHODS AND APPLICATIONS IN AUTOMOTIVE INDUSTRY by Prof. Dr. Zafer Dulger, Kocaeli University, zdulger@kocaeli.edu.tr and Prof. Dr. Gokhan Acar, Kocaeli University, ayberk@kocaeli.edu.tr 114

BUSINESS ETHICS IN THE CLASSROOM by Assist. Prof. Thomas P. Corbin Jr., American University in Dubai, tcorbin@aud.edu and Assist. Prof. Akram M. Al Matarneh, American University in Dubai.....124

THE MEDIATING ROLE OF ORGANIZATIONAL CYNICISM ON THE EFFECTS OF ETHICAL CLIMATE AND ORGANIZATIONAL CONTROL MECHANISMS ON CYBERLOAFING by Seda Kayapali Yildirim, Iğdır University, kayapaliseda@gmail.com and Assoc. Prof. Canan Nur Karabey, Ataturk University, ckarabey@atauni.edu.tr.....132

RELATIONSHIP BETWEEN EXECUTIVE COMPENSATION AND COMPANY PERFORMANCE: FROM THE EMPIRICAL EVIDENCE TO THE CASE OF BP PLC

by Abdullah Alhossini, University of Denver, alhossini.a6@gmail.com

Abstract: From 2014 to 2015, Bob Dudley, British Petroleum's CEO, gotten a 20% raise in his aggregate pay bundle, to almost \$20m, in spite of the organization making its most exceedingly terrible ever misfortune due to falling oil prices. This resulted in wide criticisms from shareholders and analysts. This paper gives a literature review on the connection between executive compensation and company performance to build the basis for a review and evaluation of the structure and reporting of executive compensation of BP. I utilize data from academic articles in high rated journals as well as official company reports of BP. I found out that the discussion of empirical evidence on executive compensation demonstrates that researchers generally agree on a positive relationship between executive pay and firm performance. However, restrictions in current compensation policies in form of managerial power theory are also recognized and prompt to suggestions in the structure and reporting of executive compensation.

Keywords: British Petroleum, Company performance, Compensation policies, Literature review, Pay bundle.

RELATIONSHIP BETWEEN GENERATIONS OF ENTREPRENEURS AND ENTREPRENEURIAL TRAITS by Ihsan Eken, University of the Incarnate Word,
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Abstract: As previously stated that entrepreneurs have substantially contributed to local economic growth, quality of life, and the workforce to the U.S economy positively. Furthermore, Stephens, Partridge, and Faggian (2013)'s research results suggested that higher levels of entrepreneurship in rural and remote regions is a key means to increasing economic growth. To enhance or at least keep the U.S. economic growth steady, the need of addressing, understanding and analyzing generationally diverse entrepreneurs and their distinguished characteristics has come out of necessity. Previous research studies reported that failure to understanding generational differences may result in misunderstanding and miscommunication, conflict in the workplace, and lower employee productivity. Generations differ from each other in values and views, workplace aspirations, politics, music, sports, movie heroes, dreads, hopes, fears, delights, and disappointments while generations that were born in the same time period share common historical experiences, economic and social conditions, and technological advances. Lancaster and Stillman (2002)'s theory claims that three different generations of entrepreneurs, Baby Boomers, Generation Xers, and Millennials, have their own work ethics and they tend to be diverse in today's high-performance workplace. Therefore, three different generations of entrepreneurs' characteristics are needed to be analyzed. These characteristics are as follows: need for achievement, need for autonomy, creative tendency, calculated risk-taking, and locus of control. Measuring and analyzing these entrepreneurial characteristics among different generations of entrepreneurs may contribute beneficial insights to their understanding in enterprising potential and differentiate themselves in entrepreneurial traits. Entrepreneurship has become a powerful factor in the U.S. economy in which it is believed that economic growth, dynamic workforce, and wealth reside in the hands of entrepreneurs. As the scope of small-business increases in the U.S., paying attention to entrepreneurship in local business has been increasing and has been a challenge among different generations of entrepreneurs.

Keywords: Generations, Entrepreneurship, Entrepreneurial Traits

VENTURE-BACKED START-UPS IN SILICON VALLEY: THE MOTIVATIONS OF VENTURE CAPITALISTS TO INVEST by Sara Mariam, University of the Incarnate Word, emami@student.uivtx.edu

Abstract: Start-ups and global technology companies in Silicon Valley have yielded innovation and entrepreneurial achievement through product development and invention. The success of these California-based start-up firms requires funding platforms via venture capitalism in its infancy stages. The aim of this research proposal is to explore the motivational factors that lead venture capitalists to invest in rising start-ups in Silicon Valley. What main conditions should start-ups meet that would motivate venture capitalists to invest their funds, time, expertise, and resources in furthering their venture? Additionally, this proposal will investigate the impact that venture capital has in shaping the developmental components of new start-ups from commercialization measures to ensuring overall sustainability.

Keywords: Investment, Motivation, Silicon Valley, Start-ups, venture capitalism.

ECONOMIC CHALLENGES FACING THE CONSTRUCTION OF WASTE WATER TREATMENT PLANTS: A CASE OF KERMANSHAH, IRAN by Reza Davoodi, PhD
Student in Environmental Health Engineering, Tehran University of Medical Sciences, Iran.
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Abstract: Kermanshah is located in the west part of Iran. In the year 2016, water demand of Kermanshah was supplied from 131 wells, two springs, one aqueduct as well as the Gavshan Dam. Because of the population growth, the city's demand will reach 133 MCM in the year 2036, while 63 MCM will be supplied by the Gavishan Dam and the rest from the existing water resources. Based on Kermanshah master plan and the results of the General Census of Population and Housing, the area of the city in 2016 was about 10000 ha and the population was 923,000 people. Most part of Kermanshah are covered by modern wastewater collection network, while in some parts, which are mostly located in old area and slums, there are no sewage networks and still traditional networks are used. Unfortunately, in such areas, raw sewage usually disposes in watercourses and floodways. Therefore, the city needs an expansion on the wastewater collection network and also new facilities for garbage disposal should be constructed. However, as most of the funding, if not all, comes from governmental sections, it is really challenging for the city's official to provide enough budget for making new facilities. Therefore, by analyzing various economic factors, this paper attempts to argue how private sectors can be included in these projects so that funding would- not be a big issue as far as general health of people in Kermanshah is concerned.

Keywords: Water Demand, Wastewater Collection Network, Kermanshah

**DOMESTIC WATER SUPPLY PROJECT FROM TURKEY TO TRNC:
DEVELOPMENT AND A PROPOSAL FOR ITS MANAGEMENT** by Accoc.Prof. Elif
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Abstract: The Turkish Republic of Northern Cyprus Water Supply Project is the world's only water transfer project by a hanging-pipe system from the sea. This project aims to ensure the provision of drinking, domestic, and also industrial water for TRNC where already has lived under a water stress due to limited underground and surface water resources. Struggling with water problems since the 1960s TRNC is lost its efficiency of available water resources by reducing the amount of rainfall, and thus, the poor quality of water causes several problems. In the country where the average annual rainfall is 4.523 million m³, 80% of the water which has obtained from rainfall has lost through evaporation and transpiration due to its geographic, topographic and climatic conditions, and its vegetation. But only the approximately 900 million m³ per year are available. Also, the water shortage issue of this country under the influence of the Mediterranean climate has emerged not only in quantity, and quality problems. In many of its territories drinking water quality is below world standards, and there is no other place where this water can be supplied. Moreover, despite an area of 329.890 ha, its 187.069 ha (56.70%) is used for agriculture sector, and only irrigated farming in the area of 9.482 ha is engaged in. Briefly, water-based farming has in one tenth of the areas mentioned, and thus, the high quality products could not obtain because of poor quality and lack of water. Thereby, water scarcity effects not only for drinking water, but also agricultural use. Through the TRNC Water Supply Project, the providing of high revenue growth rates and electricity with irrigated agriculture would be in the country, has been proposed. This project which is managed by The General Directorate of State Hydraulic Works and would be provided annually 75 million m³ of water to the country, has been put into service starting from the month of September 2015, and supplied water to the country from the Anamur Alaköprü dam. Initially, 50.3% of this water is planned to be allocated for use for drinking and domestic purposes, and also, the remaining water is planned to be used the allocation for irrigation. Thus, this project will both meet the country's 50-year water needs by providing drinking and domestic water; and obtain agricultural income with an area of 4.824 ha were irrigated. This study aims to analyze the current situation by the public administration perspective, and to make suggestions for the future.

Keywords: TRNC Water Management, Inter-basin Water Transfer, Water Governance, Water Diplomacy Model

**DEFINING COMMITMENT: HOTEL INDUSTRY SWITCHERS TO HOTEL
INDUSTRY LEADERS** by Bandar Altalhi, Texas Tech University, bandarusa@live.com

Abstract: The current paper discusses how the hotel industry in the Kingdom of Saudi Arabia has been soaring ever since the government shifted their focus towards this industry. The paper also sheds light on the consistently growing demand for the hotel industry. This research found that only 14 percent of the Saudi employees' working in hotel industry. There is a problem of Saudi employees switching from the hotel industry to other industries. Existing studies attribute switching to employees' personal, managerial, and social environmental factors. Upon further investigation, we will determine if these factors solely contribute to an employee's commitment to stay in the hotel industry or if other factors also play a role. By using in depth interviews with the Saudi employees in the hotel industry the result of this study will assist to prevent the switching of employees and help to increase the number of Saudi workers in the hotel industry.

Keywords: Hotel industry, Kingdom of Saudi Arabia.

TENSION POINTS IN EFFORTS AIMING TO SYNTHESISE LIBERALISM AND CONSERVATISM - Conservative Liberalism: Is Oxymoron a Statement or a Balanced Synthesis? by Assist.Prof.Ihsan Kurtbas, Department of Political Science and Public Administration, Ardahan University, Turkey kurtbasihsan@hotmail.com

Abstract: Today liberalism and conservatism are two strong traditions that either form the government or an alternative to it. Recently though while efforts to synthesise liberalism and conservatism continue, arguments that these ideologies are two uncompromising political traditions have escalated. In literature, there are differences between Continental Europe’s liberalism and conservatism whereas there are similarities between the Anglo-Saxon interpretations of these terms. Indeed, both doctrines adopt ownership and limited state understanding in the field of economy. However, while conservatism known as “the mysticism of compliance to State and observance of laws” in fields other than economy regards the legitimate power and authority as an indispensable necessity for a stable society, Liberalism argues that a strong government is the biggest threat to freedoms. With its scepticism to change conservatism which relies on “the peace of the known and fear of the unknown” and argues for status quo where possible and moderate and gradual change where not, differs from Liberalism whose principle motto is “the only thing that does not change is the change itself”. Their perception of the individual and society differs as well. The slogan “Laissez faire laissez passer” which is identified with Liberalism is based on values attributed to the individual. In Liberalism the society is a mechanism formed by individuals but it is a living organism in Conservatism. These and other similarities/differences continue to give rise to questions and uncertainties on what to call conservative liberalism: right wing of the liberal ideology; less radical form of classic liberalism; or, a liberalised form of conservatism? We believe conservative liberalism in the world has been evolving towards a social/political ideology that has well defined borders. In Turkey’s political life, some significant political actors and political parties such as Mr. Turgut Özal and The Development and Justice Party have managed to successfully combine and synthesise some elements of these two ideologies.

Keywords: Liberalism, Conservatism, Conservative Liberalism

MANAGERIAL CRISIS INFORMATION SYSTEMS MODEL: KEY SUCCESS FACTORS OF CRISIS INFORMATION SYSTEMS by Assoc. Prof. Jaffar Alalwan, Institute of Public Administration

Abstract: Crisis management is a critical issue that needs an accurate and a quick response because of ambiguity that surrounds crisis. Nowadays, many organizations implement crisis information systems (CIS) to manage crisis effectively. In order to make the right decisions, top executives are utilizing CIS to help them get the complete information at the right time. In addition to providing managers with the flow of information, the CIS facilitates communications before, during, and after crisis with different stakeholders. By focusing on top managers' point of view, a theoretical model is proposed to consider the initial step in determining the key success factors of CIS. In addition to helping the practitioners to concentrate on CIS effective dimensions, the measurement of the effectiveness of dimensions of CIS is so important to the assessment of management actions. The objective of this model is to investigate the efficiency of CIS and the important factors that lead to the CIS success. Future research will examine the validity of the model in a real life context by surveying and/or interviewing top managers who make crisis decisions and deal with CIS

Keywords: Crisis Information Systems, Success factors.

EMIRATIS' SUPPORT TOWARDS A MAJOR AND A MEGA EVENT: GRAND PRIX FORMULA 1 AND EXPO 2020 by Assist. Prof. Nataša Slak Valek, Zayed University

Abstract: The purpose of the present research is to examine and explain any possible variance in the perception of local Emiratis towards hosting a major and a mega event. A Grand Prix Formula One was considered for a major event, which is organized yearly in Abu Dhabi, and EXPO Dubai 2020 was researched as an example of a one-time mega event. Data of local Emiratis living in UAE were collected in-person. A self-administered questionnaire was developed that consisted of tourism perception, negative and positive impacts, and individual support. The questionnaire was adjusted to each event and N=360 were collected for EXPO 2020 and N=533 were received for F1 questionnaire. Descriptive statistics and t-test were used to administer the differences in events' perception. Our results show that significant differences exist in locals' perspectives towards a major and mega event, especially in positive impacts and individual support. The current study provides governments and event organizers with results about locals' support towards different types and sizes of events, which is critical when seeking for a community support in event organization. Specific event needs special attention in the promotion phase. In order to promote 'the right perceptions' a study like the present one is beneficial. This work contributes to the academia with proposing a model for comparing locals' perception in hosting a major and a mega event. Moreover, it confirms a need to specifically and independently approach a different level event.

Keywords: Emiratis, EXPO, Formula One, Hosting community, Locals' attitude, Mega event, Major event, United Arab Emirate.

MANAGERIAL CULTURAL INTELLIGENCE AND CORPORATE

ENTREPRENEURSHIP by Assist.Prof.Harun Yıldız, Kafkas University, Turkey,
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Abstract: Cultural intelligence is the ability to adapt quickly and effectively to different cultures where individuals are foreigners. The ability provides organizations with an important skill and advantage. Firms have a unique advantage for corporate entrepreneurship thanks to managers' cultural intelligence (CQ). Also, corporate entrepreneurship provides firms an opportunity to gain and maintain a sustainable competitive advantage. The purpose of this paper is to determine the effect of managers' cultural intelligence on small to medium-sized enterprises' (SMEs') entrepreneurial orientation. A quantitative survey method was conducted. The data was collected from SMEs' owner-managers working in various small and medium enterprises in Turkey. Data were analyzed using IBM SPSS 21.0 and AMOS 20.0 to determine the relationships between the independent and dependent variables. Findings revealed that cultural intelligence (meta-cognitive, cognitive, motivational, and behavioral CQ) positively affect SMEs' entrepreneurial orientation. Finally, this study provides theoretical and practical implications for further research.

Keywords: Cultural intelligence, Corporate entrepreneurship, Entrepreneurial orientation, SMEs.

THE RELATIONSHIP BETWEEN FEAR OF MISSING OUT AND CYBERLOAFING ACTIVITIES by Assist.Prof.Harun Yıldız, Kafkas University, Turkey,
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Abstract: The developments in information and communication technologies have also started to change the daily lives of employees quickly. This is further enhanced by increasing frequency of use of the Internet and mobile devices (mobile telephones, tablets, etc.). Thus, employees are constantly engaged in monitoring and updating online conditions in a significant portion their working time in the workplace during the day. But cyberloafing behaviors that are the usage non-work purposes of the technologies are defined as a specific form of production deviance classified as minor and organizational deviance. So, cyberloafing behaviors have generally negative effects on organizations. On the other hand, the behaviors may positive effects on innovation, creativity, and learning when they are done for organizational purposes. Therefore, the behaviors are like the sharp sword with two edges. One of the main sources of these behaviors is fear of missing out (FoMO). Fear of missing out is a relatively under-researched topic within the general cyberloafing literature which is largely conducted by a behavior-based conceptualization of cyberloafing. In this sense, it is necessary to determine the antecedents of cyberloafing behaviors. This study focuses on the effects on cyberloafing behaviors of the FoMO. After a review of these variables related studies, one proposition is developed to attract attention to this issue; that is fear of missing out will be positively related cyberloafing behaviors.

Keywords: Cyberloafing activities, Cyberslacking, Fear of missing out.

THE CONSEQUENCES OF ABUSIVE SUPERVISION: BURNOUT WORK FAMILY CONFLICT AND TURNOVER INTENTION by Assist.Prof.Bora Yıldız, Istanbul University, Faculty of Economics, Department of Business Administration, borayildiz@istanbul.edu.tr and Emre Sezici, Dumlupınar University, emre.sezici@dpu.edu.tr

Abstract: Abusive supervision is one of the most prevalent factors that affects employees' perceptions, attitudes, and behaviors. Although there is a consensus over the potentially harmful effect of this perception the literature is the lack of the integrative models that represent how abusive supervision cause work-family conflict, burnout and finally turnover intention. In this study, the effect of employees' abusive supervision perception on the burnout, work-family conflict and turnover intention was evaluated theoretically. Additionally, the mediator roles of work-family conflict in the abusive supervision-turnover intention relationship, and abusive supervision- burnout relationship were investigated based on Social Exchange Theory. Building on Social Exchange Theory, this study tries to explore how employees feel as burnout, and how employees who perceived their supervisors as abusive can develop turnover intention via work-family conflict and burnout. According to these definitions, the present theoretical paper investigates the direct links and indirect links among the constructs along with the past studies and theoretical predictions. Moreover, the theoretical framework of the study provides a ground that further researches could go one step beyond the model. Managerial and further research implications are provided.

Keywords: Abusive supervision, Burnout, Turnover intention, Work-family conflict.

EFFICIENT AND REVENUE MAXIMIZING UNIT-PRICE AUCTION PROCEDURES

by Yumiko Baba, Aoyamagakuin University, yumiko.baba@gmail.com.

Abstract: This paper proposes unit-price auction procedures with multiple heterogeneous items. Our model is a special case of Baba (1997) which imposed more general condition of supermodularity. All four unit-price auction procedures yield the same expected revenue to the seller and implement the revenue maximizing auction under the assumptions of unit demand, indivisible items, no collusive behavior, ex-ante symmetric bidders, and risk-neutrality of bidders and the seller. Further, two unit-price auction procedures satisfy a fair criterion. In addition to internet keyword auctions, we apply our model to procurement auctions. Two unit-price auction procedures are especially desirable for public procurement contracts due to their fairness and their robustness against collusion among bidders.

Keywords: Auctions, Fairness, Multiple heterogeneous items, Unit-price.

**WHEN OVERQUALIFIED EMPLOYEES EXHIBIT ORGANIZATIONAL
CITIZENSHIP BEHAVIORS? IT DEPENDS ON CONDITIONAL FACTORS** by

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Abstract: From the past to present, selecting right employees to right job has been one of the main concerns of top managements or organizations. Although advance improvements have proceeded that way, there is still needed satisfactoriness about providing the best fit. In other words, despite effective personal selecting activities, employees could feel themselves as overqualified or underqualified in comparison with the formal job requirements. Overqualified employees play a key role in organizations performance. Whereas past researchers have indicated the potential disadvantages (e.g. dissatisfaction, turnover intention, boredom, cyberloafing) of overqualified employees, there is a lack of knowledge regarding the design properties of greener pastures (e.g. organizational support, organizational commitment) that facilitate some positive effects i. e. organizational citizenship behaviors (OCB). In this respect, the purpose of this study is to uncover the potential positive effects of overqualified employees on the behavioral outcomes i.e. organizational citizenship behavior. In this study, we propose that if over qualified employees feel supported by their organizations they develop a commitment to their organizations and in turn exhibit OCBs. In this respect our moderated mediation model consists of three types of variables; overqualification as an independent variable perceived organizational support as a moderator variable, organizational commitment as a mediator variable, and OCB as a depended variable. Managerial and further research implications, as well as further research directions, are provided.

PROTESTANT BUSINESS ETHICS AND MODERN BUSINESS LIFE

by Assist. Prof. Muhamed Kursad Timuroglu, Ataturk University, timuroglu@atauni.edu.tr

Abstract: Whether it is the public sector or the private sector, all businesses perform many functions to maintain their operations. As a result of globalization, businesses competing in business life, where the number and variety of participants are increasing rapidly, often faced with practices such as corruption, bribery, harassment, discrimination, theft and unfair competition. For this reason, it is observed that in recent years important efforts have been made to increase the sensitivity of people in this field, where the subject of business ethics, which affects modern business life, has been discussed more in scientific studies and researches. It is witnessed that business ethics sensitivity is increasingly gaining value in businesses and businesses in today's global world. Morality deals with what is right or wrong and what is good or bad. This study is not about morality in general but about "business ethics", which is a distinctive field of morality, and how business ethics affects modern business life.

Keywords: Ethics, Modern business life, Protestant business ethics.

Morality and Ethics

In daily life, it is seen that the concepts of ethics and morality are often used interchangeably. Ethics focuses more on character and focuses on decision-making behavior. The concept of morality is mainly used for social order. These two concepts are different because ethics is a moral philosophy and morality is a research topic of ethics. Morality determines the right and wrong of cultural values and ideals and how they should be treated accordingly. Ethics, on the other hand, is based on more abstract concepts and attempts to define what should be understood from abstract concepts (Ülgen and Mirze, 2004).

Ethics are the rules and values that constitute the basis of the individual and social relations of a human being as a social entity and a discipline of philosophy that researches in terms of morality such as right-wrong, good-bad. It is also known as science of tradition. It is derived from the ethos - ethics word meaning "character", "habit" and "custom". It is also referred to as moral philosophy in the ethical western tradition and is used in the sense of ethics or Latin moral concepts (Koçak, 2013).

Ethics is a collection of rules which contains ethical values and principles that guide the behavior of the person or group in relation to what is right and what is wrong. Ethical behavior and values are part of our lives and it is a concept that confronts everywhere, from our private life to business life, which regulates the standards of what is good and what is bad.

Ethics deals with two main issues:

- Qualities needed to be good and right as a human,
- Rules governing individual behavior.

Another important concept is business ethics. In the light of the ethical and moral definitions in general terms, the ethical problems encountered in enterprises constitute the subject of business ethics. It is expected that in business life, both individuals and enterprises should adhere to the general ethical principles. In addition, other considerations in business ethics are the obligation to maintain the existence of the business and profit for it, and the balance between the expectations of the community when making profits. In this context, business ethics are values and attitudes about how ethics can be applied in business, in politics, in culture. According to another definition, business ethics; Standards, norms, rules that are guiding moral righteous behavior and reliability.

The Protestant Business Ethics

The word "Protestant" means "rebel", refuser. In the 19th century, Martin Luther (1489-1546) initiated the initial objection to the Roman Catholic Church's opposition to such issues as the donation of sins, the interpretation of the Bible, and the keeping of the rule in its own monopoly. Right after the proliferation of this objection over time, various Protestant denominations emerged (Tümer and Küçük, 1988). Weber mentioned of four major historical bearers of the Protestant Morality (or sometimes he named it Ascetic Protestant), Calvinism, Pietism, Methodism and Baptists (Weber, 1985).

Calvinism: It is an action initiated by Jan Calvin in 1536. Especially in the 17th century, Calvinism has become widespread in countries with higher cultural levels, such as the Netherlands, England, and France, where capitalism has developed the most. The most renowned and still valid teaching is the teaching of divine appreciation (Weber, 1985). Weber's Protestant moral understanding is based primarily on Calvinist interpretation, his divine discipline of appreciation, and earthly asketism. The Calvinists are separated from other Protestant tribes because of their unique fatalistic understanding. Calvinism is the current belief in higher-level

countries where capitalism is most developed. The basic principle of Calvinism is the teaching of divine appreciation. According to the 1647 Westminster Declaration, the basic assumptions of this teaching are:

- God created the universe from his own glory.
- God is unattainable.
- It is already certain that human will go to heaven or hell.
- Since God is unattainable, human does not know whether to go to heaven or hell when he/she is in this world.
- One has to work in this world and serve the goodness of God.
- Every kind of worldly pleasure, entertainment are sin and forbidden. (Aslan, 2007)

Pietism is the personal morality and emotion say that is the basic element of religiosity. The starting point of pietism is the teaching of divine appreciation (Weber, 1985). It is the movement in which all believers are regarded as universal priests, giving a very personal and emotional reverence to the doctrine of Protestantism (Çatalbaş, 2013).

Methodism: Methodism is also the name of a religious community and movement, as it is the name of a social community founded and developed by John Wesley, a patriarch of the English Church, and Charles Wesley and George Whitefield (Polat, 2007). It is a Protestant sect that emerged in England in the 17th century and then spread to America and is still have around 25-30 million members. In worship and daily life they are called "Methodists" because they always follow a methodical order (Tümer, 1988).

Baptists: They are sects born of the Baptist movement. Today it is a Protestant denomination born in the Netherlands with 25-30 million members (Tümer, 1988). Baptism was founded by Anglican congressionalist's who escaped to the Netherlands as a result of the prosecutions of the Catholic Anglican church (Murzaraimoglu, 2003).

Max Weber opened a new era with his considerations of what it means to capitalism and what is the condition that determines capitalism. The qualities that define capitalism are still largely derived from the pioneering writings of Karl Marx and Max Weber (Marchal, 1999: 382). Max Weber states that Protestant societies have a unique work ethic that is not in other societies. Protestant beliefs emphasize the importance of working hard and creating value and the need to be frugal by avoiding worldly pleasures. The idea that the cultural characteristics of societies, the collective members' values about the concept of work, and the significance they attributed to this

concept, in other words, their influence on the ethics of their work, was first raised by the German sociologist Max Weber in the early 20th century. According to Weber, capitalism is the reason for the emergence of Protestant belief in societies where it is common that this belief has been infused with different values to work for individuals and thus a different ethics of work has developed in such societies. These values for Weber's work define the system as "Protestant Work Ethics" (Ünal, 2011).

There is undeniable evidence that the Protestant Work Ethics is still valid and important today. Concerning Protestant Work Ethics; the assumption is that it is not actually there, it is in a downward trend, it is housed in an understanding of the status quo, that it is a rising value, that the form of presentation changes, but the essence is the same. However, when three current trends are considered, it can be seen that the basic features and beliefs of this concept are still valid. These tendencies are; *Do it-yourself vogue* that emphasizes personal development, time management practices to improve efficacy and productivity, *anti-hedonic asceticism* and self-discipline, which are characterized by tight nutrition diets and alcohol abstinence, it becomes *skill-based* with the widespread use of sporting activities that prioritize physical exertion and teamwork (Furnham, 1990).

Protestant Business Ethics and Modern Business Life

Morality deals with what is right or wrong and what is good or bad. What constitutes business ethics is what constitutes business ethics. In other words, business ethics refers to the truths and mistakes in the process of production, sale and consumption of goods and services in the business world.

Whatever the terms of business ethics are meant to cover; Business ethics includes relationships among the following groups (Forest and Bright, 2009):

- Relationships between businesses,
- Relationships between business managers and employees,
- The relationships among employees,
- Relationships between business and customers,
- Relationships between business and suppliers,
- Relationships between business and public administration,
- Relationships between business and environmental factors and

- Relationships between business and other organizations (credit institutions, trade unions, non-governmental organizations, etc.).

In each of these relations, problems arise in terms of business ethics. The existence of these problems paved the way for the emergence of business ethics as a discipline. Business morality is a type of morality practiced with these directions. It is a fact that morality and especially business ethics have very important contributions in the regulation of business life. Business moral principles, along with legal regulations, prevent both bad attitudes and behaviors in business life and encourage good actions, unlike legal regulations.

The basic view of the Protestantism is that "the fulfillment of earthly duty under all circumstances is the only life of the gods pleasing, and that the god has only the wish, and that all the professions that have been approved thus have the same value on the floor of the god". Therefore, worldly life in Protestantism was considered as homework, and this homework had to be done in the best possible way. To guarantee their blessings, people will do their work as long as they are day in this world. It is served only by work, not by leisure and pleasure, to the obvious wish of God to increase his glory. Wasting time is the first and the heaviest in all sins. The life-span of which one is to 'make sure' one's own profession is very short and valuable. Time loss in social life is 'empty talk', luxurious, sleeping more than enough for health - up to 6 hours, up to 8 hours - absolutely moral disputes. All of this work is another of the basic rules that will not be used for personal interests and wealth at the end of the period (Kurtuluş, 2010).

The ascetic (Protestant) ethics advises believers to avoid evil from this world. In modern business life, together with a rational organization, it is necessary that a large part of the profit is not consumed and accumulated in order to produce and reproduce the means of production. This is the accumulation of capital that the business world is looking for; in Protestant morals, who work hard, produce a lot, consume less, run away and spend unnecessary. According to Weber: "Protestant morality justifies the idea of high profits, not always to enjoy the pleasures of life, but always to produce more. " That is, Ascetic Protestants are multitasking; Not only to enjoy the pleasures of life, but also to gain a greater understanding of the high profits arising from the desire to produce more. The principle of resisting the desires of the self-caused by the ascetic understanding did not allow the unnecessary expenditures they had accumulated. Besides, they did not allow their wealth to remain idle, they invested more to produce more. Ultimately, according to Weber: " Because of the asceticism force to providence the accumulation of capital,

the obstacle to the depletion of the earned, the productive use of the capital has been ensured.”(<http://hasancetinn.blogspot.com.tr/2014/01/weber-protestan-ahlak-ve-kapitalist-ruh.html>)

According to Weber: "The most important virtue of Protestant morality is that it is the religious duty to work regularly and methodically in a profession." Weber notes that, according to Weber, the capitalist economic system is not the product of pure reform. However, the professional understanding and Protestant influences caused by the reform have continued to flirt with the capitalist spirit. The work of Weber, "The Protestant Ethic and the Spirit of Capitalism, 1905" is one of the earliest works to examine the relationship between religion and the market in modern times. Probably West is the well-known work of Weber, it has been a frequently referenced source, many cited and criticized in the studies on this subject. According to Weber's impressive prediction, there is a relationship between some religious teachings and economic behavior. He argued that the regions and countries where Protestantism prevails in particular have the highest rates of trade and economic growth. Moreover, it has argued that the attitudes and motivations for participation in economic activities and organizations are shaped by religious thoughts and business ethics. Emphasized that the teaching of Protestant belief in the emergence of entrepreneurial activities is a catalytic effect (Miller and Evest, 2010).

Weber, addressing the relationship between modern business life and Protestantism in three basic terms, first argued that there is a positive relationship between the economic situation of the individual and the society. In countries where Protestants live, Protestants are relatively wealthy as individuals and communities. For example, the Protestant population in Germany is more wealthy than non-Protestant. Likewise, when religious and occupational statistics in a country are put side by side, it is seen that most of the highly educated technical and commercial personnel, large capital owners and business leaders are Protestants. Second, after the 16.century there is a positive relationship between the countries that welcomed the reform in the West after centuries and the areas in which Industrial Capitalism pursued successful profits. All of the Western countries developed economically since the reform are Protestant: Netherlands, United Kingdom, United States of America and Germany. Finally, Weber, who correlated the Protestant mentality with the capitalist economic mentality, tried to prove his thesis by sending them to important thinkers of Protestantism (Torun, 2002).

Conclusion

While businesses have a good organizational structure, it is important that they have certain business ethics standards in order to prove themselves in the modern business life. Businesses face issues such as corruption, bribery, theft and unfair competition every day. These problems are between the enterprise and the environment, between the enterprise and the enterprise, between the enterprise and the competitors. As a result of the globalization, geographically and culturally far-reaching businesses and consumers come together in global markets and it is difficult to control this situation, so there are a lot of practices in business world that are against business ethics. This causes the interest in business ethics to increase day by day in modern business life.

In the light of the above information, it seems that there is a relationship between Protestant understanding and the development of modern business life. Protestant beliefs emphasize the importance of creating hard work and value, and the need to be frugal by avoiding earthly pleasures. These requirements are in line with the principles of modern business life. Protestant communities have invested instead of spending their welfare (Unal, 2011). It can also be understood in this context that the developments in modern business, institutional progress and technological innovations, usually first emerged in Protestant societies.

Protestant understanding emphasizing an ethical approach that supports work, trade, savings and investment. This effect of the Protestant teachings and morality has been consolidated by the 19th-century political thinkers and the theories and ideologies developed by economic theorists, and the private sector and entrepreneurship have become one of the main institutions in the west. In the following periods, the transition from the workshops to the mass production enterprises was accelerated; Private sector, free market, capital and entrepreneurship have become the most dynamic and influential institutions of society and economy. In addition, it must be emphasized that the belief that disciplined work will lead the individual to success is seen as the key to success in modern business life. Protestant business ethics contributed to the settlement of elements of modern business life, such as profit and respect for material success, into society's lives.

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A SURVEY DEVELOPMENT STUDY FOR EVALUATING USABILITY OF E-COMMERCE WEBSITES by Dr. Güler Erkal Karaman, Ataturk University, Turkey,

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Abstract: In the early years of the Internet, people had used it for knowledge and information querying and searching. Today, however, there is a wide variety of internet services that enable users to handle most of the daily issues via the cyber world. In this point, e-commerce web sites are widely used. In this study, the issue of e-commerce concept and enhancement of usability of e-commerce websites that are operating actively in Turkey is addressed. In this quantitative study that focused on the evaluating of e-commerce websites, data is gathered via questionnaire. Convenience sampling was used to determine the sample of the study. 88 students that had passed Human Computer Interaction Course formed the sample of the study. As a result, e-commerce usability level survey has been developed based on the data obtained from the evaluation of the most commonly visited three e-commerce websites operating in different sectors in Turkey. With the overall evaluation of the results it can be concluded that providing personalization plays an important role in e-commerce websites' usability.

Keywords: E-commerce, Usability, Survey development

Introduction

Human behaviors have changed due to the change of life styles, increase of living standards, and the extensive use of social media. These changed behaviors led to a parallel change in people's daily lives. Shopping is one of the concepts included in these concepts that underwent changes. The concept of shopping which took place through exchange in the early ages has evolved and become dependent on a system based on currency with the introduction of money. People started to supply their needs by interacting directly with the producer or the mediator. Today, due to technological improvements and internet becoming widespread, the concept of shopping started to take place in the electronic environment.

Electronic commerce (e-commerce) is defined as any kind of business action where parties interact electronically without establishing a physical connection or physical exchange (TUENA). Individuals shop as they like independent from time and space via e-commerce while

vendors are able to provide services for more buyers through this platform without facing challenges such as space, storage, and so on.

According to the data from Turkish Statistical Institute, 33.1% of individuals who used internet services in 2015 purchased or ordered products for personal use. The previous year the percentage of online shoppers was found to be 30.8 %. According to these results, the increase in the use of e-commerce is close to 3%. It was found that 57.4 % of individuals who shopped online between April 2014 and March 2015 purchased clothing and sports gear, 27 % travel tickets, car rentals, etc., 25.5 % household goods (furniture, toys, major appliances, etc.), 22.4 % electronic devices (cell phone, camera, radio, TV, DVD player, etc.) and 18.4 % books, magazines, newspapers (including e-books).

The concept of e-commerce not only creates advantages both for the buyer and the seller, but also creates disadvantages for both sides sometimes. 23.2 % of the individuals who shopped online between April 2014 and March 2015 reported that they encountered problems. These problems are mostly physical problems such as damage due to mishandling by the carriers, rather than problems related to systems. There are various scientific studies on the concept of e-commerce in the literature. The purpose of this study is to develop a survey by providing various usability criteria for e-commerce websites.

The Concept of E-Commerce

With the start of massive use of internet, social relationships started to shift towards the internet platform. A user group called “electronic group” created by many users who spend most of their time online interacting with others, accessing various information sources, join forums. While this group used internet more for research in the beginning, they included internet in their social lives as well over time. The number of people who use internet for entertainment and shopping started to increase everyday. Thus, the foundation of the concept of e-commerce was laid.

The general definition of e-commerce is to do commerce online. There are other definitions of e-commerce made by various companies or establishments:

- The most common and widely accepted definition on this matter is the definition made by OECD in 1997. Within this context, e-commerce is defined as a process that involves the actions below:
- Getting information and doing research online by the companies before the trade,
- Meetings of companies in an electronic environment,
- Completion of the payment process,
- Delivering promises, delivering products or services to the customer,
- Providing maintenance and support services after the sale.

World Trade Organization (WTO) defines e-commerce as “the production, distribution, marketing, sale or delivery of goods and services by electronic means.” According to the United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT), e-commerce is defined as “the conduct of business, management or purchase activities, of the structured and unstructured business data needed to accomplish these actions between manufacturers, consumers, governmental and other organizations through electronic devices (e-mails, electronic bulletin boards, www technology, smart cards, electronic funds transfer, electronic data exchange, etc.).”

In addition to these definitions, Ministry of Transportation of Republic of Turkey defines e-commerce in the Turkish National Information Infrastructure report, as any commercial business activity conducted electronically without the need for any physical connection or exchange between the parties.

Development and History of the E-Commerce Concept

In the beginning, the concept of e-commerce was used with the purpose of making commercial activities easier through the use of technologies such as electronic data interchange (EDI) and electronic funds transfer (EFT). These technologies allowed organizations to send and receive commercial documents such as invoices and orders in the late 1970s. Credit cards, ATMs and phone banking which increased and became commonly accepted in countries in the 1980s, are also e-commerce types.

Also, airlines reservation systems developed by the United States and England in the 1980s are amongst the systems that contributed to the development of the e-commerce concept.

The history of online purchasing which is a form of e-commerce occurred before the giants of the sector such as IBM-PC, Microsoft, Apple, and the invention of internet/www. The first e-commerce took place in 1979 by connecting PC to television.

The first known B2B was carried out by a travel agency called Thomson Holidays in England, and the first B2C was carried out in Turkey by the TESCO supermarket chain operating under the name KIPA. Thus, 72 year old Jane Snowball residing in England went down in history with her TESCO order in 1984 as the first online shopper.

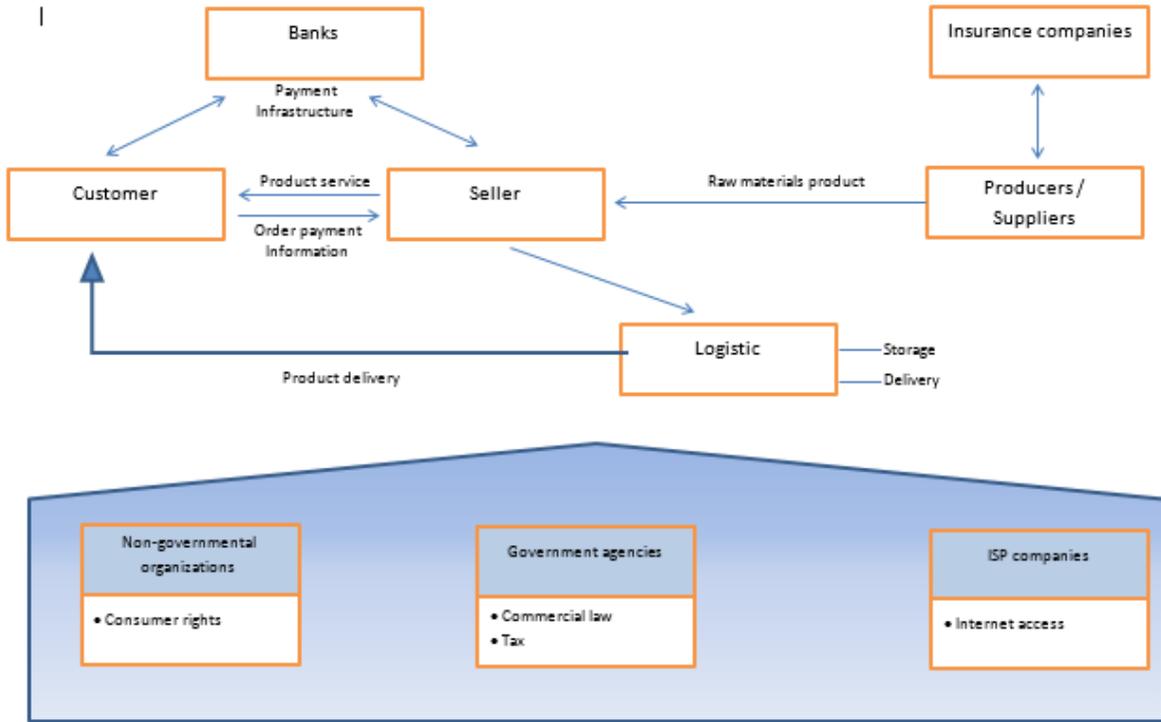
Academic communication network suddenly became a communication system at an international level accessible by everyone with Tim Berners Lee's invention of WWW (World Wide Web) explorer in 1990. However, no commercial attempt online was made as it was illegal until 1991. With the start of online shopping in 1994, internet security protocols and DSL infrastructures that provide constant connection started to improve. Many European and American origin companies moved their services to internet towards the end of 2000s. Thus, people started to have access to various products and purchasing options online through e-commerce and internet.

E-Commerce Work Principle

The first thing comes to mind is online commercial transactions when e-commerce is mentioned. However, during the periods when access to computer and internet was not common and technologically not sufficiently improved, e-commerce was still being conducted via tools that are technology based such as phone, fax, telex, television, electronic payment, electronic funds transfer, and electronic data exchange. Most of these communication tools that are still in use provide one sided communication option and they need to support each other in order for a transaction to happen. However, commercial transactions done via these tools which remove the necessity of bringing the buyer and the vendor together, are also considered e-commerce (Coskun, 2000). The first application to carry e-commerce to computer environment is the use of electronic data exchange (EDE). EDE is a system that provides exchange of information and document structured via computer networks without any human interaction between two commercial parties (Canpolat, 2001). Additionally, e-commerce work principle is shown in figure 1.

Figure 1. E-commerce Work System (Canpolat, Ö. (2001). E-Ticaret ve Türkiye’deki Gelişmeler, Ankara: T.C. Sanayi ve Ticaret Bakanlığı Hukuk Müşavirliği)

Figure 2. E-commerce Work System (Canpolat, Ö. (2001). E-Ticaret ve Türkiye’deki Gelişmeler, Ankara: T.C. Sanayi ve Ticaret Bakanlığı Hukuk Müşavirliği)



Various tools and parties play roles in the process of meeting demands in e-commerce systems. The parts of this system is shown in Table 1.

Table 1. Tools of E-commerce (HASILOĞLU Selçuk Burak, Elektronik ticaret ve Stratejileri Ekonomik ve Teknik Dergi, Standart, Volume 494, Şubat 2003)

TRADITIONAL TOOLS	NEW TOOLS
Television	WWW(World Wide Web)
Radio	FTP
Telephone	Electronic mail
Fax	Voice mail

Electronic Payment and Funds Systems · ATMs (Asynchronous Transfer Mode) · Credit Cards · POS machines	Conferance Systems · Teleconference · Data Conference · Video Conference
Intranet: Closed Computer Nets · Electronic Funds Transfer (EFT) · Electronic Data Interchange (EDI)	Global System Technology for Mobile Communication (GSM) Short Message Service (SMS) WAP :Wireless Application Protocol

According to Sirma (2002), parties of e-commerce can be listed as follows:

- Buyers,
- Vendors,
- Producers/manufacturers,
- Brokers,
- Insurance companies,
- Transport companies,
- Private sector information technologies,
- Non-governmental organizations,
- Universities,
- Notifying body, Electronic notary, the Undersecretariat of Foreign Trade, the Undersecretariat of Customs, Ministry of Industry and Commerce, other state institutions and organizations.

METHODOLOGY

The purpose of this study is to determine the indicators of usability of e-commerce websites in Turkey and develop a scale based on usability for e-commerce websites in accordance with the results obtained. Therefore, a survey was developed in order to identify the important elements in terms of usability.

In our study, we examined three most preferred e-commerce websites in terms of technology, ready to wear and product variety in Turkey. When selecting the websites to include in the study, we took into consideration the percentage of use of these websites in Turkey and that each website had a different target demographic. These websites operate in the fields of technology, cosmetics, personal accessories and clothing, and one website operates in multiple

fields targeting multiple demographics. Initially, we conducted an extensive literature search on e-commerce and reviewed studies and findings conducted on e-commerce. With the information gathered from the literature search, we aimed to present meaningful elements in terms of usability. Therefore, we created an item pool and developed a survey.

Participants

The participants consisted of students who have taken the Management Information Systems Human Computer Interaction course in the School of Economics and Administrative Sciences in Ataturk University in Erzurum. Participants were selected by using non-random sampling. The overall participant number was eighty eight.

Data Collection Tool

The questions in the data collection tool were inspired by the surveys developed by KAMIS (Public guide for internet websites) in order to identify and improve the usability problems for public websites and by literature. The data collection tool consists of 2 sections. In the first section, participants are asked to evaluate the websites they reviewed in terms of usability criteria. The responses for the first section is in the form of “Exists/Doesn’t exist” while the second section requires answers in terms of frequency.

Data Analysis

Data gathered through the developed surveys were analysed statistically. In the first step of the analysis we controlled whether the data obtained is appropriate for factor analysis by using Kaiser-Meyer-Olkin (KMO) coefficient and Barlett Sphericity test (Bayram, 2004; Buyukozturk, 2005). The distribution of the data was examined by the histogram graphic. The data was found appropriate for the factor analysis. Then exploratory factor analysis was used to evaluate the construct validity and factor structure while principal component analysis was used as the extraction method. Common factor variance on each variable, different factor loads, explained variance ratios and line graphs of items were examined. The factor loads of items were chosen as at least 0.40. Varimax principal component analysis was used to examine the factor structures.

At the end of the scale development, Pearson’s correlation coefficient was calculated to determine the relationship between the scale and the factors, and between the factors. Lastly,

item-interaction total correlation was conducted by calculating Cronbach alpha internal validity coefficient.

Findings

This is a scale development study. An evaluation scale was developed for evaluating e-commerce websites in terms of usability. In general, there are three phases in scale development studies that are; creating an item pool, structuring the scale, and evaluating the scale (Schwab, 1980). In this study, the process consists of a literature search and creation of an item pool, creation of the scale, application of the scale to the sample, validity and reliability analysis, and the completion of the scale. The scale development process and the steps followed are listed below:

- Field literature search
- Evaluation of survey studies in the literature on the subject matter and adaptation of items that could contribute to the study
- Arranging items based on expert feedback
- Development of the survey
- Application of the survey to the sample
- Preparation of the data for analysis
- Conduct of exploratory factor analysis
- Second reduction (eliminating the items that have low correlation)
- Identification of the factor number and their loads
- Calculation of factor reliability
- Testing the scale validity
- Completion of the scale

The results of the factor analysis of the scale measuring the level of usability of e-commerce websites

The results of the factor and reliability analyses for the Scale Measuring the level of usability of e-commerce websites are provided below.

Table 1. Total Variance Explained by Factor Analysis

Items	Eigenvalues	Cumulative Factor Load
-------	-------------	------------------------

	Total	Variance %	Cumulative %	Total	Variance %	Cumulative %
1	2,600	21,668	21,668	2,600	21,668	21,668
2	1,913	15,941	37,609	1,913	15,941	37,609
3	1,521	12,672	50,281	1,521	12,672	50,281
4	,914	8,448	58,730			
5	,883	7,356	66,086			
6	,821	6,842	72,928			
7	,734	6,121	79,049			
8	,666	5,548	84,597			
9	,599	4,993	89,590			
10	,551	4,588	94,178			
11	,432	3,596	97,774			
12	,267	2,226	100,000			

Table 2 shows that the items “exists/doesn’t exist” are accumulated under 3 factors that have an eigenvalue bigger than 1. The first factor explains 21.399% of the total variance on its own, the second factor explains 15.941% of the total variance, and the third factor explains 12.672% of the total variance. The total variance that these three factors explain is 50.281%.

The common variances of the three factors identified for the items range between 0.784 and 0.503. The items 8, 10, 34, 39 and 51 make up the first factor while items 7, 40, 41, and 79 make up the second factor, and items 9, 13, and 27 make up the third factor in the survey (Table 3).

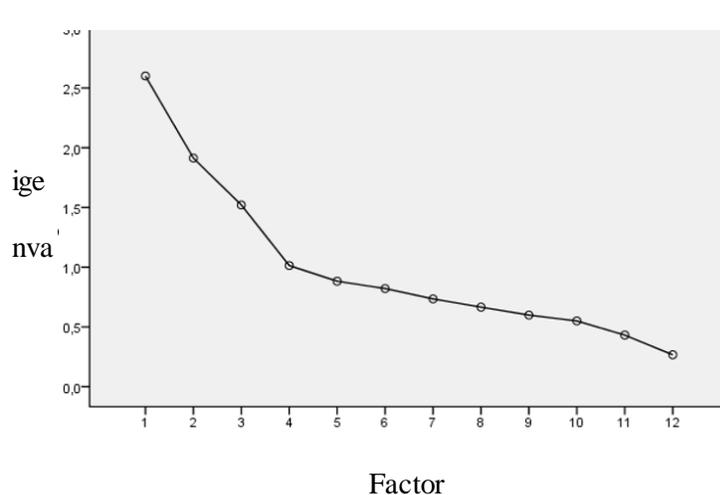
Table 3. Factorial Distribution of Items

	Factors		
	1	2	3
a8	,727		
a51	,694		
a10	,645		
a34	,630		
a39	,569		
a7		,784	
a79		-,636	
a40		-,601	
a41		,535	
a9			,706
a27			,653
a13			-,503

The factor loads of the items in the first factor are between 0,727 and 0,569, between 0,784 and 0,535 in the second factor, and between 0,706 and 0,503 in the third factor (Table 2.2.) The observation form is prepared visually by evaluating the contents of the items and the relationships between the factors.

Additionally, the line graph of the factors were evaluated and found that the line graph starts to lose its curve significantly after the third factor. Therefore, the factor number is determined as three (Table 2).

Figure 2. Line Graph of the First Section



The findings of the analysis of Likert type items in the survey are presented in Table 4.

Table 4. Total Variance Explained By Factor Analysis

Items	Eigenvalues			Cumulative Factor Load		
	Total	Variance %	Cumulative %	Total	Variance %	Cumulative %
1	7,023	28,092	28,092	7,023	28,092	28,092
2	2,672	10,689	38,781	2,672	10,689	38,781
3	1,869	7,477	46,259	1,869	7,477	46,259
4	1,692	6,769	53,028	1,692	6,769	53,028
5	1,237	4,949	57,977	1,237	4,949	57,977
6	1,132	4,528	62,504	1,132	4,528	62,504
7	1,051	4,205	66,709	1,051	4,205	66,709
8	,905	3,621	70,331			
9	,827	3,309	73,639			
10	,803	3,213	76,852			
11	,764	3,057	79,909			
12	,733	2,931	82,841			
13	,668	2,672	85,512			
14	,574	2,298	87,810			
15	,446	1,785	89,594			
16	,414	1,656	91,250			
17	,387	1,548	92,799			
18	,350	1,402	94,201			
19	,300	1,202	95,403			
20	,271	1,084	96,487			
21	,240	,959	97,446			
22	,200	,798	98,244			
23	,163	,652	98,896			
24	,146	,585	99,481			
25	,130	,519	100,000			

Table 4 shows that the Likert type items that were analysed are accumulated under 7 factors that have an eigenvalue bigger than 1. The first factor explains the 28,092 % of the total variance, the second factor explains 10,689%, the third factor explains 7,477%, the fourth

explains 6,769%, fifth factor explains 4,949%, sixth factor explains 4,528% and the seventh factor explains 4,205% of the total variance. The total variance that these seven factors explain in this scale is 66,709%.

The common variance of the seven factors identified range between 0,884 and 0,422. The items 30, 35, 39, 45, 49, 50, and 53 make up the first factor, items 26, 40, 41, and 47 make up the second factor, items 43, 59, and 60 make up the third factor, items 8, 10, and 11 make up the fourth factor, items 23, 24, and 68 make up the fifth factor, items 19, 70, and 76 make up the sixth factor, and items 3 and 66 make up the seventh factor (Table 5).

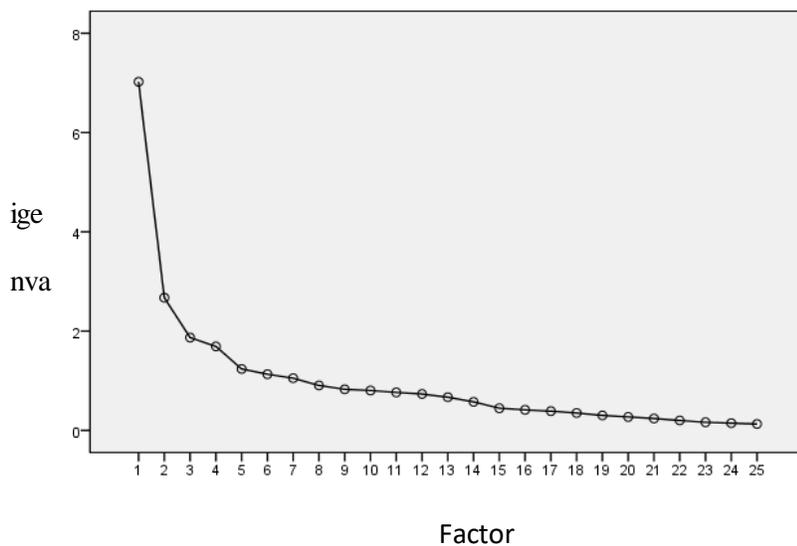
Table 5. Factorial distribution of Items

	Factors						
	1	2	3	4	5	6	7
b35	,738						
b50	,725						
b49	,701						
b45	,664						
b39	,608						
b30	,590						
b53	,422						
b40		,802					
b41		,788					
b26		,604					
b47		,550					
b60			,825				
b59			,735				
b43			,696				
b8				,825			
b11				,810			
b10				,720			
b24					,783		
b68					,778		
b23					,596		
b76						,729	
b70						,688	
b19						,505	
b66							,884
b3							-,468

The factor loads of the items in the first factor range between 0,738 and 0,422; between 0,802 and 0,550 in the second factor; between 0,825 and 0,696 in the third factor, between 0,720 and 0,825 in the fourth factor; between 0,783 and 0,596 in the fifth factor; between 0,729 and 0,505 in the sixth factor, and between 0,884 and 0,468 in the seventh factor (Table 5). The observation form is prepared visually by evaluating the contents of the items and the relationships between the factors.

Additionally, the line graph of the factors were evaluated and found that the line graph starts to lose its curve significantly after the seventh factor. Therefore, the factor number is determined as seven (Table 2).

Figure 3. Line Graph for the Second Section



CONCLUSION

The purpose of this study is to identify the usability indicators of e-commerce websites and develop a scale based on the results obtained. The study emerged from the observations of some usability problems that users experience in the e-commerce websites. The first section of the study consists of the survey study to obtain data and the second section consists of the scale development process. The survey developed was presented to the users under the supervision of researchers and data related to the websites were collected and analysed.

The focus of this study is to eliminate the usability problems of e-commerce sites and to develop a valid and applicable survey. With this study, a 36-item survey with 12 items of exists-doesn't exist, and 24 items of 5 Likert scale was developed. The items in the first section are accumulated under 3 factors while items in the second section are accumulated under 7 factors.

The first section of the survey shows that the most effective element on the usability of websites is the data entry option provided. The reason for this may be that customers feel that they are important and their opinions are valued. This should be taken into consideration when designing websites. Also, the feedback provided by the website and frequently asked questions are found to be the least important in terms of usability. This shows the need for providing personalized feedback rather than general when designing e-commerce sites.

When the second section of the survey is examined, the most important elements were found to be consistency in website pages, organization of connections and readability of the page, understandability and ease of use. These findings may indicate that the users don't want to come across products other than the ones they want to buy and that they want to be able to move easily to access the product they want. In the second section, it was found that the least important factor is the easy search options in the website. This indicates that users expect more sophisticated options than what they're provided.

This study shows that the expectations of users of e-commerce sites are more towards meeting personal needs and that each option provided should be aligned with this. This should definitely be taken into consideration when designing e-commerce sites and generalized approaches should be avoided.

SUGGESTIONS

Some suggestions emerged based on the results of this study. These suggestions focus on increasing the usability levels of e-commerce sites and for researchers who would conduct similar studies in the future.

- Sites should provide options towards meeting the individual needs of users,
- Sites should avoid compactness and eye-straining content,
- The design of sites should be simple and understandable,
- Accessibility criteria should be taken into consideration when designing the site,

- The filter option in in-site search should be made more functional.

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ACCESSION TO WORLD TRADE ORGANIZATION AND ITS IMPLICATIONS FOR TRADE DIVERSIFICATION AND ECONOMIC ACTIVITY – EVIDENCE FROM SAUDI ARABIA by Assist.Prof. Fayq Al Akayleh, Ph.D., College of Business Administration, Al Yamamah University, Riyadh, Saudi Arabia, bsbann@gmail.com

Abstract: An important question amongst economists is: what is the impact of accession to the World Trade Organization on the economies of member countries? Using a comparative analysis, econometric approach, and data from Saudi Arabia, this study proves that trade patterns have changed in some areas and remained unchanged in others as a result of accession to the WTO. The study proves that accession to the WTO has resulted in a remarkable increase in trade share and that accession to the WTO has a positive and significant effect on economic activity.

Keywords: Economic activity, International trade, Saudi Arabia, Trade patterns, World Trade Organization.

Introduction

The purpose of establishing the WTO and its predecessor GATT was the substantial reduction of tariff and nontariff barriers (NTBs). This global strategy of trade liberalization adopted by the WTO's was aimed at facilitating the flow of trade among nations. Obviously, the WTO's policies are aimed at enhancing the flow of trade amongst nations. This enhancement of trade flow cannot take place unless effective trade policies are set up and implemented. In this context, the economic literature covers two categories of trade measures, namely trade outcome measures and trade policy measures.

Many economists handled trade outcome measures (such as trade share, export share, import share, import penetration ration, etc.) as indicators for trade openness (Rodriguez and Rodrik 2001; Pritchett 1996; Yanikkaya 2003; Giles and Stroomer 2003; Cigno et al 2002; Larrain and Choi 2004; McCarthy et al 1987; Leamer 1987; Balassa 1978; Feder 1982; and Michaely 1977). Taking trade outcome measures as proxies for trade openness was criticized on the ground that it might be economic growth that causes trade outcome measures to increase and not the other way round.

The second set of literature turned to focus on trade policy measures (including tariff rates, import quota, export quota, voluntary export restraints, collected tariff ratio, etc.) as representatives of trade openness (Dollar 1992; Sachs and Warner 1995; and Harrison 1996). All these indicators of trade openness or outward-orientation policies suffer from the problem of omitted variables. For instance, countries that undertake free-market trade policies may also adopt free-market domestic policies and prudential fiscal and monetary policies which are highly correlated with economic growth. Omitting such variables from the analysis of the trade effect on growth will without doubt yield wrong and spurious results.

An alternative instrument for trade share has been introduced by using “the gravity equation” technique (Frankel and Romer 1999 and Bergstrand 1985), which is based on estimating trade share through some explanatory geographical variables including area, population, and distance between trade partners. This methodology of Frankel and Romer (1999) assumes that these variables are related to trade share and do not affect income.

The methodology of Frankel and Romer (1999) was unreliable and inaccurate because geography may affect income through channels other than trade (Rodriguez and Rodrik 2001). For instance, geography affects public health through exposure to various diseases, and hence affect human capital; geography also affects the quality and quantity of natural endowments, including soil fertility, plant variety, and abundance of minerals. Estimation of the income equation based on Frankel and Romer gravity equation yields an upward bias on the instrumental variable estimate unless the equation is controlled for those variables that have been mentioned in Rodriguez and Rodrik (2001).

In Section the topic and some literature is introduced. Section 2 states the study importance, objective, and motivation. Hypotheses, mythologies, and data are dealt with in Section 3. Section 4 analyzes the association between accession to the WTO and the change in trade patterns in Saudi Arabia. The impact of accession to the WTO on economic activity in Saudi Arabia is the subject of Section 5, and Section 6 concludes.

Objectives, importance, and motivation of the study

The literature discussed above does not show a common agreement, either on a specific measure for trade openness or on the effect of trade openness on growth and trade patterns. These disputes lead to further work on the topic in an attempt to overcome all possible shortcomings associated with the previous studies.

The primary objectives of this paper include: (1) introducing a new measure for trade openness, (2) examining the impact of trade openness on economic growth in the pre- and post-membership in the World Trade Organization (WTO) eras, showing evidence from an oil-producing country, i.e., Saudi Arabia. A secondary objective of the paper is examining the impact of the accession to the WTO on trade structure and pattern of trade.

The motivation for picking the Saudi economy for evidencing is threefold. First is the lack of research on the examination of the impact of trade openness on economic growth in the country. Second, the Saudi economy is an oil-driven economy and it is worthwhile to study whether openness to trade has resulted in an improvement in the diversification of the country's exports or the other way round is correct and, once a conclusion has been reached, it can be generalized for other countries with oil-dominated economy, particularly the Gulf Cooperation Council countries (GCC).

Hypothesis, methodology and data

The study objectives are planned to be achieved by testing two hypotheses. The first hypothesis is related to the effects of accession to the WTO on trade patterns in Saudi Arabia whereas the second hypothesis deals with the impact of accession to the WTO on economic growth. To test the two hypotheses, two types of research methodologies will be followed: the descriptive and comparative method and the quantitative and empirical method. The descriptive and comparative method will be used to investigate the effects of accession to the WTO on trade patterns. The impact of accession to the WTO on economic growth in Saudi Arabia will be examined by using the quantitative and empirical approach, particularly a proper regression modeling.

The relatively large sets of data employed in this research are collected from various national and international resources, including the Saudi Arabian Monetary Agency (SAMA), General Authority for Statistics (SAGAS), Saudi General Customs (SGC), United Nations Conference on Trade and Development (UNCTAD), United States Department of Agriculture-Economic Research Service (USDA-ERS), Penn World Table (PWT). While the study's data depend on various resources, careful attention is paid to keep consistency and reliability of data.

In the light of the very high fluctuations in general price levels and in oil prices, this paper will mainly depend in analysis on real values of the research variables. Due to lack of proper data, some variables' data will be treated again in order to guarantee consistency and

accuracy of data. This is mainly related to export and import unit value, real gross domestic product (Real GDP), oil exports, and non-oil exports. The price (value) indices of these variables will be used to adjust for fluctuations. The existing data were built on using different base years such as 1999, 2005, 2007, etc. To assure consistency and accuracy, the base year for all the used indices will be unified. Unification of the base year will be made in this study by switching the base years for all relevant variables to 2010.

The study period covers 21 or 22 years and is split into the period of pre-accession to the WTO (1994-2004) and the period of post-accession to the WTO (2005-2015). This division of the study sample helps in exploring the changes in trade patterns associated with the accession to the WTO.

Accession to the WTO and trade patterns

Saudi Arabia has had to open up its economy to the world economy to sell its huge oil production. The Saudi economy is considered as the clearest example of a rapid export-led growth (Chaudhry 1989). Trade openness is an urgent priority for the Saudi not only to find foreign markets for its oil exports but also to find proper foreign markets for its imports where the Kingdom's imports form 39 percent of total GDP in 2015.

To enjoy the expected and possible merits of trade openness, Saudi Arabia made huge efforts and commitments to meet the WTO rules and policies required from its members. In 2003, 85 percent of tariffs were reduced to 5 percent or less, as shown in Figure 1.

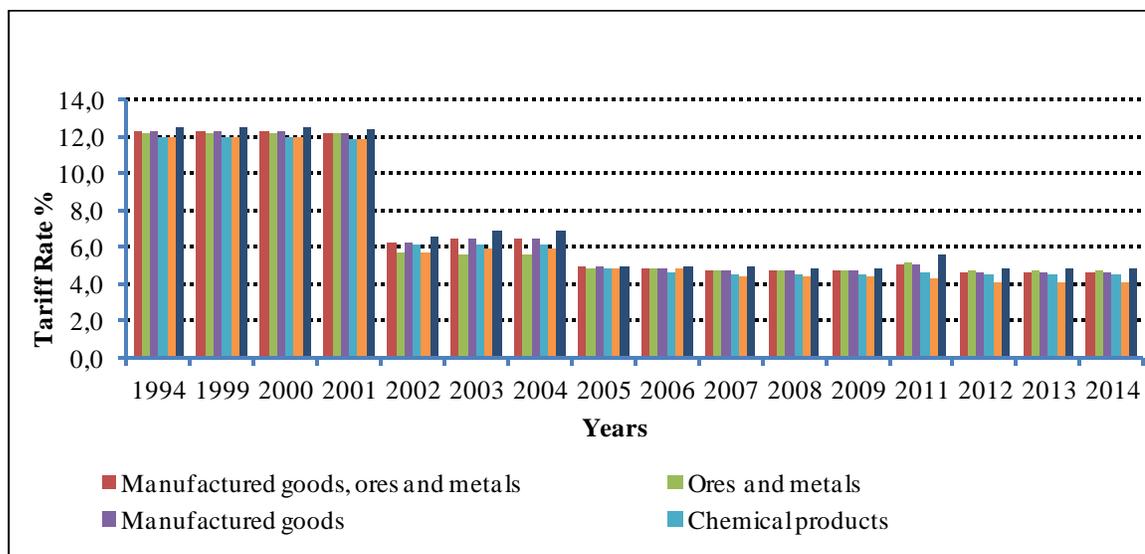


Figure 1: Import tariff rates on non-agricultural and non-fuel products, annual simple average, 1994 – 2014. Source: United Nations Conference on Trade and Development (UNCTAD), 2016.

After twelve years of negotiations and the implementation of a large set of trade commitments, Saudi Arabia became a WTO member on December 11th, 2005.

While Saudi commitment to meeting WTO rules and policies have been implemented and carried out, the agreement does not touch many areas of the economy. The Saudi government's agreement with the WTO does not intervene in some Saudi trade policies such as prohibited products (mainly wine and pork), boycott of Israeli products, and Saudization policy.

The Saudi government has signed many economic, bilateral trade, and investment agreements with different countries, including Algeria, Argentina, Australia, Austria, Azerbaijan, Bangladesh, Belgium, Canada, China, Denmark, Egypt, Finland, France, Germany, Greece, Holland, India, Indonesia, Iraq, Ireland, Italy, Japan, Jordan, Korea, Lebanon, Malaysia, Morocco, Pakistan, Philippines, Russia, Syria, South Korea, Taiwan, Tunisia, Turkey, USA, Uzbekistan, and Yemen.

In addition to WTO agreement and the above-mentioned bilateral agreements, Saudi Arabia is party to a number of multilateral economic and trade agreements including the Gulf Cooperation Council Free Trade Agreement (GCC FTA), Greater Arab Free Trade Area (GAFTA), Arab Free Trade Zone (AFT), KSA-USA TIFA (which is related to economic reform and trade liberalization).

The international trade theory explains that the pattern of trade is determined by the Ricardian, Heckscher–Ohlin, and imperfect competition models. Empirical studies examined the predictions of these trade theories and how well the predictions of these various theories are supported by empirical evidence. These studies have been reasonably successful in explaining the determinants of trade pattern. It is also very important for economists and policy-makers to understand how the determinants of the patterns of trade change over time. Trade policies were found as the main factors affecting the determinants of trade patterns (Baldwin 1986).

The effects of Saudi bilateral and multilateral trade agreements are more or less embedded in the effect of the Saudi-WTO agreement since 99 percent of the agreements' countries are also members of the WTO. Therefore, in this section the paper examines how the trade pattern trended in the pre- and post-accession to WTO periods in 2005. The main trade patterns that will be examined in this section include export and import trends, trade balance, market diversification of trade, product diversification of exports and of imports, inter- and intra-industry trade, and export and import elasticities.

Export and import trends

According to the Saudi General Authority for Statistics (GASTAT 2016), Saudi total exports in 2015 amounted to US \$ 201 billion compared to US \$ 342 billion in 2014, denoting a decline of 40.2 percent. This dramatic fall in export is no doubt the result of a continuous decrease in oil prices where oil prices decreased from US \$ 99.1 per barrel in 2014 to a low of US \$ 52.4 per barrel in 2015, i.e., a decline of 47 percent (OPEC 2016). The implication of these facts is that the Saudi exports are not only driven by oil exports but the oil export share still dominates total exports.

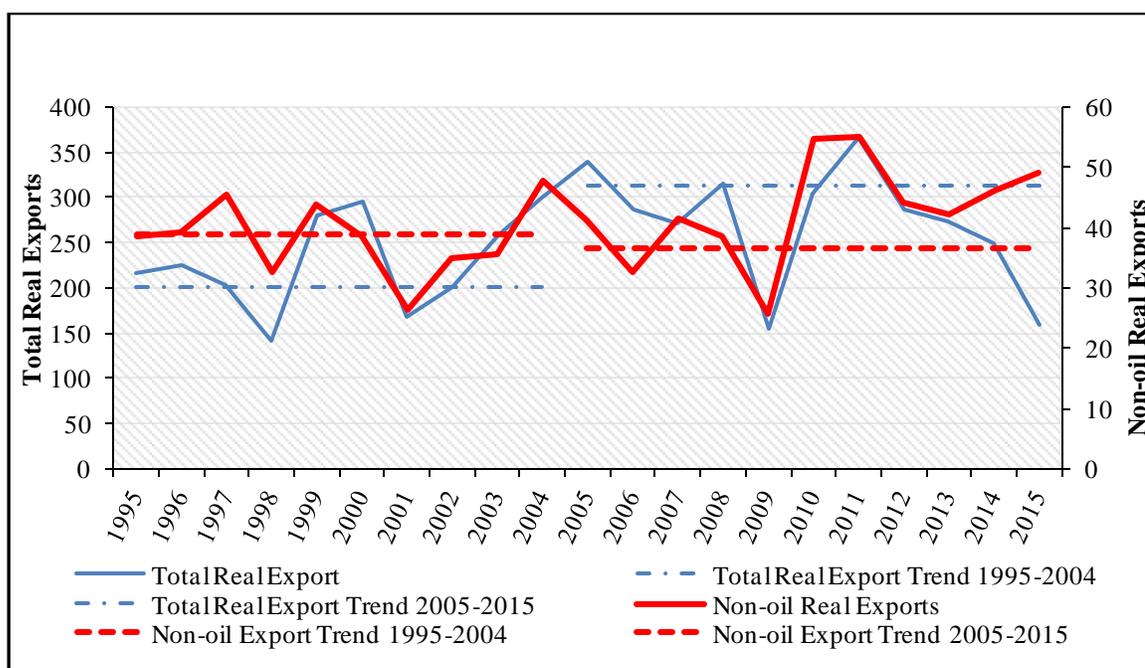


Figure 2: Total Real Exports & Non-oil Exports in billion US dollars (2010=100)*

* Author's calculations for real terms. Source: Data Center, United Nations Conference on Trade and Development (UNCTAD), 2016.

Since the Saudi economy is an oil-driven economy, it is false to examine the association between export development and accession to the WTO by only taking total exports as the main analysis variable. Therefore, this study employs the trends of both total real exports and non-oil real exports as indicators serve the purpose of investigating the association between accession to the WTO and export development. Figure 2 shows the trend analysis of total Saudi exports.

While the total real export trend estimation has increased from US \$ 200.2 billion in the pre-accession period to US \$ 313.7 billion in the post-accession period, non-oil real export trend estimation decreased from US \$ 38.8 billion to US \$ 36.6 billion, successively. The first finding of export trend analysis is that the remarkable growth in total real exports is attributed to remarkable rise in real oil prices that have increased from an average of US \$ 27.2 per barrel during 1994-2004 to an average of US \$ 72.6 per barrel during the post-accession period (2005-2015) and that the accession to the WTO had nothing to do with total export increase. More importantly, the second finding of the export trend estimation analysis is that non-oil real exports have worsened after the Saudi membership of the WTO. All Saudi socio-economic development plans were aimed at enhancing export diversification and increasing the contribution of non-oil exports. Data analysis explained as in Figure 2, however, does not support the plans' goals. As of the end of 2014, non-oil exports in Saudi Arabia contributed to only 20 percent of total exports compared to 70 percent in the United Arab Emirates (IMF 2016; Alvil 2016).

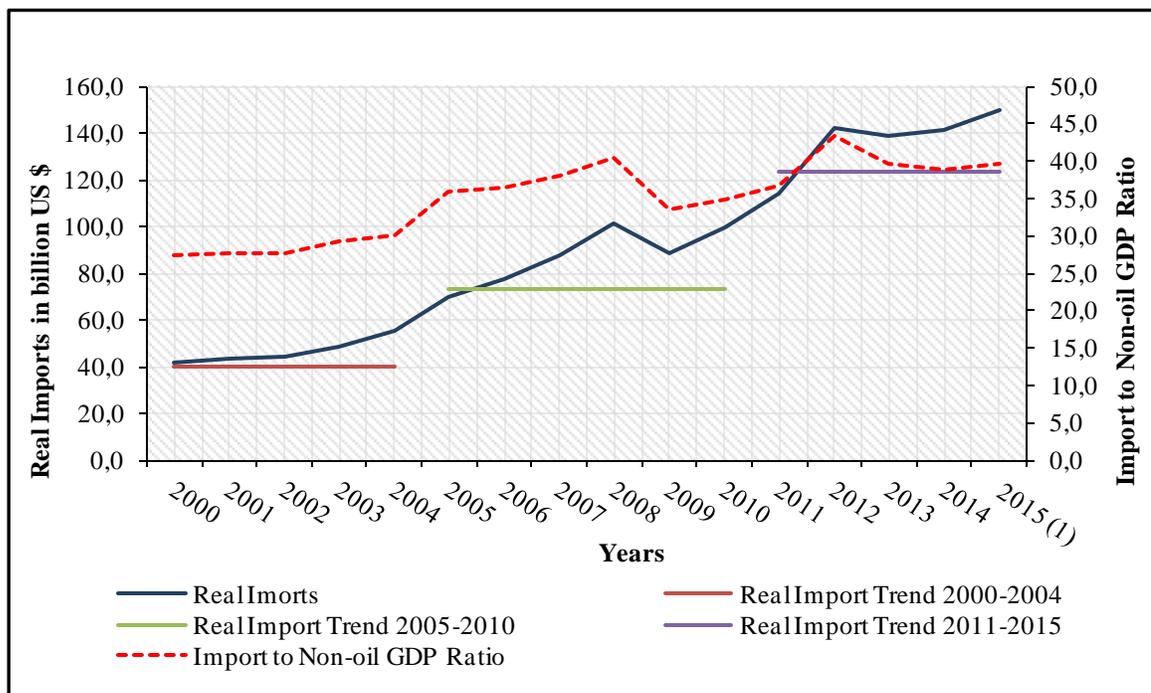


Figure 3: Real Imports (2010=100) * Author's calculations for real terms. Source: Data Center, United Nations Conference on Trade and Development (UNCTAD), 2016

The left-hand Y-axis of Figure 3 shows the trend of real imports. Saudi imports, as for almost all world economies, have been increased over time as long as population growth experiences positive rates and as nominal incomes increase. Yet, the import trend has further

accelerated in the post-accession to the WTO era where the real import trend coefficient has increased from 40 during the period of 2000-2004 to 123 during the period of 2010-2015.

The large share of oil GDP to total GDP does not help in investigating whether the import substitution took place in the Saudi trade and, therefore, this study considers the ratio of real import to non-oil real GDP measured on the right-hand Y-axis of Figure 3. Except during the world financial and economic crisis of 2008-2009, the share of Saudi imports in non-oil GDP showed an upward trend, indicating an increasing import penetration in the Saudi economy. This increasing import share in Saudi Arabia and in the GCC economies is attributed to several factors including income growth and dispersions between domestic prices and international prices of imports (Aljebrin and Ibrahim 2012 and Ibrahim 2015).

International market diversification of trade and trade balance

Trade liberalization policy is meant to ease the flow of goods and services across borders without man-made trade barriers. Man-made trade barriers include the bilateral and multilateral trade agreements, tariff and non-tariff barriers (NTBs), political and economic agglomerations, and economic reform programs, economies of scale and clustering, and real factor productivity. Trade is also subject to natural barriers or constraints such as distance, climate, coastal location, geopolitics, congestion, and factor endowment. (Rossi-Hansberg 2005). These factors will determine the pattern of trade.

The main objective of the World Trade Organization is to eliminate the man-made trade barriers and to reduce the effect of natural barriers so as to enhance trade flows among countries. Karl Aiginger and Stephen W. Davies (2004) empirically studied the evolution of concentration and specialization patterns as economies develop. In this section and the next section, the study investigates whether the Saudi accession to the WTO has resulted in shifting the geography of Saudi trade, i.e., does Saudi Arabia's accession to the WTO change the trade pattern in terms of geographical diversification of trade? This is, of course, under the notion of "don't put your eggs in one basket" to reduce the risk of trade geographical concentration.

Table 1 compares the geographical concentration (market diversification) for Saudi trade in the pre- and post-accession to WTO periods. The Saudi trade geography has not been affected by the accession to the WTO.

Table 1: Regional Markets for Saudi Trade*

Region	Exports						Imports					
	1994-2004			2005-2015			1994-2004			2005-2015		
	Average	Share	Rank	Average	Share	Rank	Average	Share	Rank	Average	Share	Rank
European Union	43141.0	17.09	3	121002.6	11.61	3	38868.2	32.7	1	42674.3	32.5	1
Asian(Non-Islamic & Non-Arab Con.)	110137.0	43.63	1	548588.6	52.65	1	27370.6	23.0	2	31035.8	23.7	2
North America	47379.2	18.77	2	154132.4	14.79	2	23676.5	19.9	3	25018.8	19.1	3
Europe not European Union	831.9	0.33	10	1486.7	0.14	10	6180.5	5.2	4	6557.1	5.0	4
Islamic (Non-Arab Countries)	13157.8	5.21	5	50183.5	4.82	6	5654.4	4.8	5	6219.3	4.7	5
GCC	16807.1	6.66	4	78793.6	7.56	4	4437.7	3.7	6	5143.8	3.9	6
Other Arab League Countries	8709.5	3.45	6	51734.9	4.96	5	4003.8	3.4	7	4495.6	3.4	7
South America	4262.5	1.69	8	11301.9	1.08	8	3433.0	2.9	8	4043.6	3.1	8
Oceania	2303.7	0.91	9	2855.1	0.27	9	3229.0	2.7	9	3813.1	2.9	9
African (Non-Arab or Islamic Con.)	5576.2	2.21	7	21937.5	2.11	7	1224.0	1.0	10	1378.1	1.1	10
Other Countries	119.8	0.05	11	14.2	0.00	11	712.1	0.6	11	755.1	0.6	11

* Author's calculations. Source: Saudi General Authority of Statistics (GASTAT), 2017.

Data in Table 1 shows that Saudi exports' regional trade partners remained unchanged with Asian (non-Islamic, non-Arab) countries, the European Union, and North America dominating almost 80 percent of Saudi total exports. More than 95 percent of Saudi exports to these three regions is crude oil, petrochemicals, and petrochemical products. During the pre-accession to WTO period, out of the total exports, 62 percent went to the United States of America (17.8 percent), Japan (14.9 percent), South Korea, Singapore, India, Holland, France, and South Africa. The same geographical distribution of exports remained in the post-accession period except that China moved up to take the third rank with a share of 10.9 percent. The remaining 40 percent of Saudi exports went to the rest of the world with a share less than 3 percent for each country. Oil exports form more than 90 percent of total Saudi exports. Since a vast share of oil export is crude oil, the Saudi export movement is to a large extent governed by

natural resource endowment of the Heckscher–Ohlin Trade Model and not by factor productivity. The remaining share of oil exports is in form of manufactured oil and petrochemicals, reflecting some sort of Ricardian Comparative Advantage and internal economies of scale due to the cheap inputs of such products.

Similar to export markets, Saudi import markets are concentrated (with a share of 76 percent) in Asian (non-Islamic, non-Arab) countries, the European Union, and North America without a change after the accession to the WTO (Table 1). Since imports have dramatically increased from all the main trade partners, this is a direct indication that the import penetration level has further increased in the post-accession to WTO period. Saudi imports from the United States dominated the total import share in the pre- and post-accession to WTO periods. Yet, the stunning U-turn in Saudi import market is the overwhelmingly increased share of China’s share in Saudi imports, which has jumped from 4 percent in the pre-accession to WTO period to 12 percent in the post-accession to WTO period. In recent years, China became the number one market for Saudi imports.

The Saudi economy is an oil-driven developing economy and, accordingly, the total trade balance is always in surplus, thanks to oil revenues. The trade surplus, however, moves always in the direction of oil price movements. Figure 4 shows the trade balance in Saudi Arabia during the study period.

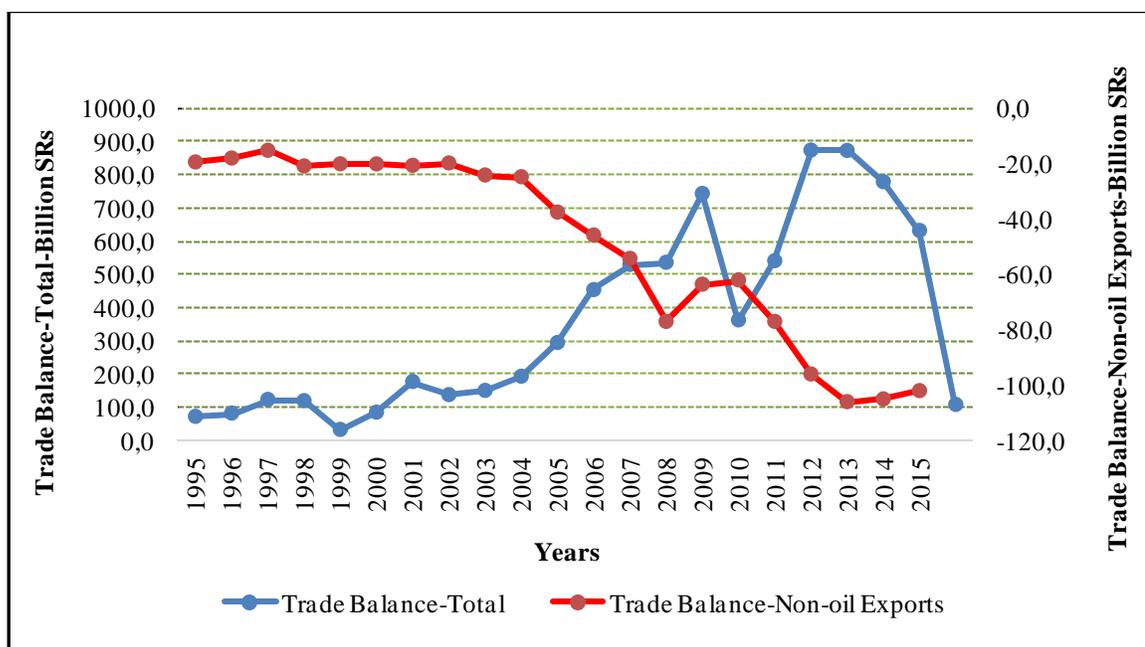


Figure 4: Trade Balance. Source: Saudi General Authority of Statistics (GASTAT), 2017.

The total trade balance (measured on the left-hand y-axis of Figure 4) moves exactly with oil prices and hence oil revenues. The annual average oil revenue as a share of total revenue has increased from 75.6 percent during the pre-accession to the WTO period to 87.8 percent in the post-accession to the WTO period. The dramatic and continuous drop in oil prices from an annual average of US \$ 111.6 per barrel in 2012 to US \$ 52.4 per barrel in 2015 has resulted in a serious decline in trade surplus as shown in the stunning downward sloping of the blue line, representing the total trade balance, from 2013 onwards. Axiomatically, the WTO has nothing to do with the declining oil prices and their direct effect on trade balance.

The Saudi trade balance excluding oil exports is, with no doubt, always in deficit. But the bitter fact is the tremendously increasing deficit in the non-oil trade balance, and the astonishing deterioration was since the Saudi accession to the WTO as shown in Figure 4, where the non-oil trade balance curve became much steeper since 2005. This result is mainly attributable to the fact that the Saudi economy became more open to international markets. This openness did not serve Saudi international trade. On one hand, the lack of diversified production input required for various sectors of the economy makes Saudi products unable to compete with imports in the domestic market. On the other hand, Saudi exports suffer from very weak comparative advantage and very weak economies of scale in all products except oil and petrochemicals. As a result non-oil trade deficit has further deteriorated due to more exposure to international trade.

Export diversification

Economic diversification is one of the top priorities in Saudi Arabia because an oil-driven economy is dominated by the energy industry and such an industry is characterized by a capital-intensive production method (International Monetary Fund 2016) and hence creates fewer jobs compared to other sectors of the economy. Further, due to fluctuations in oil prices, the employment in the energy industry is fragile. Therefore, there is an urgent need to implement economic diversification policies. The socioeconomic development plans and the Saudi Vision 2030 all prioritized the economic diversification to assure sustainable rates in production, terms of trade, public revenues, exports, and employment by reducing dependency on oil and develop other sectors of the economy. The purpose of this section is to study the export diversification

and to examine the effect of trade openness policies during the WTO accession period on export diversification in Saudi Arabia.

There are several ways to measure export diversification. One measure is the share of the biggest three or four items in total exports. The type of the goods exported has been employed as a measure of export diversification. A quantitative measure of export concentration (or the inverse of diversification), which has also been used, is the Hirschman–Herfindhal index (H–H). The less diversified the composition of exports, the higher is the value of this index (or the higher the export concentration degree in few products). For the purpose of this study, the H–H index is considered.

If τ designates the share of the i th export item (x) in total exports, the H–H index is equal to:

$$H = \sum (x_i / \sum x_i)^2 = \sum \tau_i^2$$

Disaggregated data according to S.I.T.C. classification are used to calculate the H–H index for Saudi Arabia. In Figure 5, the export concentration index during 1994–2015 is constructed.

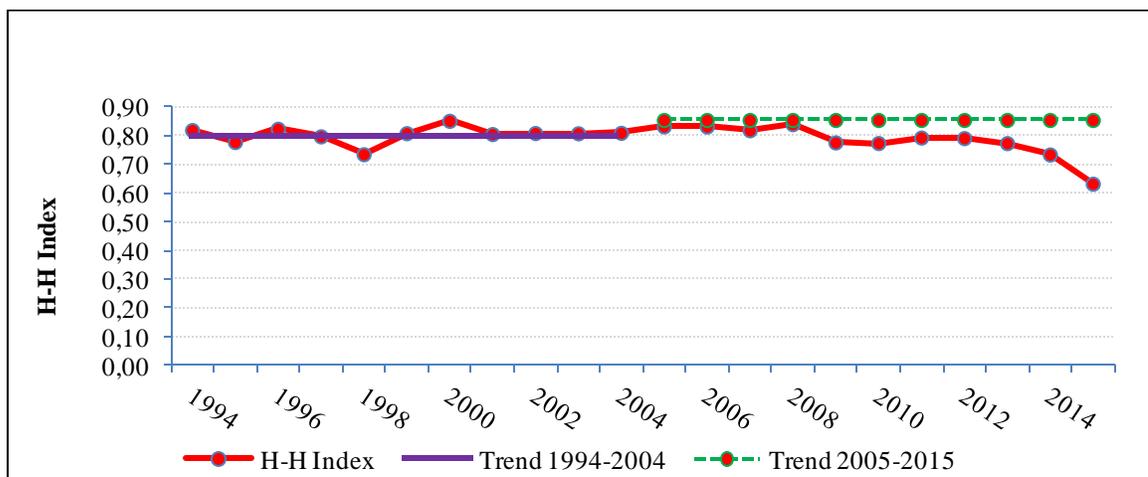


Figure 5: Hirschman-Herfindhal Export Concentration index (H-H) *
* Author's calculations. Source: General Authority of Statistics (GASTAT), 2017.

The Saudi government's continued efforts to diversify non-oil exports include a number of measures and schemes in recent years. First, the establishment of the Saudi Export Development Authority (SEDA) with the functions of conducting research and market forecast,

setting up plans and putting them in place to guide and support exporters, and marketing the Saudi products in international markets by participating in international export fairs. Second, the establishment of Saudi Export Program (SEP) in 2001 by the Saudi Fund for Development to help develop non-oil exports to enhance the diversification of export returns through finance and insurance operations of exports. The SEP targets non-oil exports including chemical and plastic products, manufactured metal products, machines and equipment, capital projects, and other exports. The total financial credit and insurance to support non-oil exports reached SR 9.34 billion (US \$ 2.5 billion) in 2015.

Nevertheless, export concentration index was very high during the entire study period with an overall average of 80 percent. This is a clear indicator that export diversification is very low in Saudi Arabia concentrated mainly in oil and petrochemicals. More importantly, the H–H index trend coefficient indicates that the concentration index has increased from 0.80 during the pre-accession to WTO period to 0.85 in the post-accession to WTO period, indicating less diversified exports.

Inter- and intra-industry trade

In this section, the study tries to analyze the status of economies of scale and comparative advantage of Saudi-exported products. To execute this task, a measure called intra-industry trade will be employed in this section. The most commonly recognized measure of intra-industry trade is the Grubel–Lloyd index (Grubel and Lloyd 1971). Let GLi stands for Grubel–Lloyd index for ith product, X and M are total exports and total imports, respectively, then such an index is built using the following formula:

$$GLi = 1 - \frac{|Xi - Mi|}{(Xi + Mi)}$$

The economic interpretation of the GLi implies that if the GLi value equals 1, the entire trade is intra-industry trade and, if the GLi value equals zero, the entire trade is inter-industry trade.

Data on export and import values from the Data Center of the United Nations Conference on Trade and Development (UNCTAD) were collected for 257 products that Saudi Arabia trades in. Using the above equation, intra-industry trade index (GLi) for Saudi Arabia has been

constructed for the entire study period of 1994-2005. The annual intra-industry trade index (GLi) for 257 Saudi tradable products, which is constructed by the author, is not shown in this paper due to space constraint and can be provided upon request.

Out of 257 tradable goods, the intra-industry trade position did change in the post-accession to WTO period in comparison with the pre-accession period for three tradable goods, which were crude petroleum oils, liquefied propane and butane, and non-electric parts and accessories of machinery. Clearly, the trade pattern of the first two products is inter-industry trade whereby these two products are the key exports of Saudi Arabia, constituting more than 80 percent of total exports. The third good (which is non-electric parts and accessories of machinery) is mainly an imported good. Thus, it can be argued that the accession to WTO did not affect the country's trade pattern for the goods that the country is either completely endowed with their inputs or completely lacks for their inputs.

The constructed GLi index for Saudi Arabia showed that the intra-industry trade has increased for 120 products since the accession to the WTO whereas the intra-industry trade has decreased for 134 goods. In other words, intra-industry trade has increased for 52 percent of the Saudi tradable goods, decreased for 46.7 percent, and remained unchanged for 1.2 percent of the tradable goods. The increasing intra-industry trade for 52 percent of tradable goods implies that for 52 percent of Saudi tradable goods the source of such pattern of trade is the existence of economies of scale. Thus, Saudi accession to the WTO was associated with economies of scale for 52 percent of Saudi trade either in Saudi Arabia or in its trade partners. This is as 46.7 percent of Saudi trade is concentrated in goods that have a comparative advantage either for Saudi Arabia or for its trade partners, and 1.2 percent of trade has factor-relative abundance either for Saudi Arabia or for its trade partners.

Terms of trade (ToT)

The terms of trade is a reflection of the effect of trade on welfare. Oil prices may account for a significant variation in the terms of trade (Backusa and Crucini 2000). As an oil-exporting country, Saudi oil exports amount to more than 80 percent of total export and as the world's second largest exporter of oil, Saudi Arabia's current account balance has always been in surplus. Accordingly, the terms of trade are totally driven by the oil price movements.

Figure 6 shows the terms of trade in Saudi Arabia and oil prices at constant 2010 prices. Data on terms of trade were collected from the Data Center of the United Nations Conference on Trade and Development (UNCTAD) and the base year has been switched off from 2000 to 2010 to reduce the gap (difference) between the base year and comparison years. The oil prices are Brent crude prices and have been taken from OPEC.

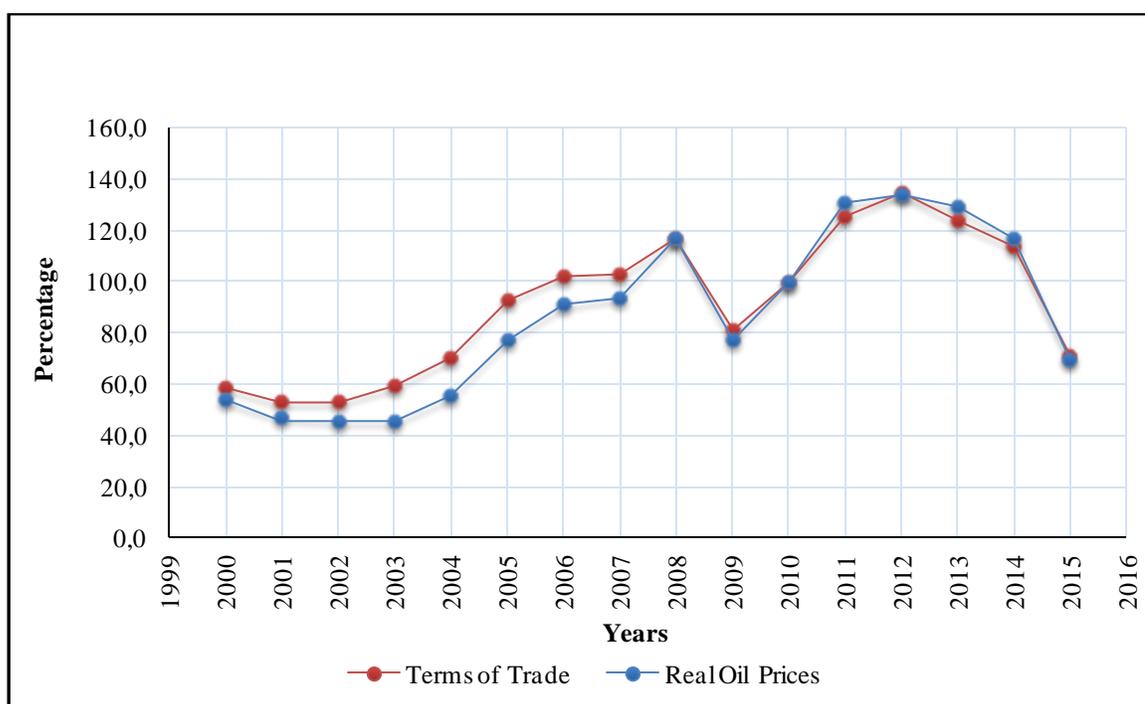


Figure 6: Terms of Trade & Real Oil Prices (2010=100). Source: Data Center, United Nations Conference on Trade and Development, 2016, and Organization of the Petroleum Exporting Countries, 2017.

The persistent increase in oil prices was always associated with identical improvement in terms of trade in Saudi Arabia, whereas the economic recession of 2008/2009 and the oil bust of 2012-2015 were associated also with identical deterioration in the terms of trade. The trend coefficient for the terms of trade has increased from 53.2 in the pre-accession to the WTO period to 102.3 in the post-accession period. Clearly, the accession to the WTO was not the factor behind the improvement in the terms of trade, and it is oil price movements that cause the fluctuations in the terms of trade.

The impact of accession to WTO on economic growth in Saudi Arabia

Most of the WTO objectives focus on boosting economic growth at the level of individual countries and at the world level as a whole. The objectives of the WTO are totally related to international trade's policy and outcomes. The WTO's functions are reflected in the agreements that all member countries should comply with. These agreements cover various trade-related areas, including goods, services, intellectual property, trade dispute settlement, and policy review.

With all its functions, this section examines the impact of accession to the WTO on economic growth, taking the Saudi Arabian economy as a case study, which is the second objective of this study. Saudi Arabia has met many requirements as a member country of the WTO and it is worth it to examine the effects of these requirements on the country's economic activity. To achieve this objective of the study, a model will be suggested and will be empirically applied.

The idea of the model

The commonly used indicator as a proxy for trade openness is the trade share (the sum of exports and imports over GDP). This indicator is adopted as a measure of trade openness by the world economic institutions including the United Nations Conference on Trade and Development, the World Bank, the International Monetary Fund, and the World Trade Organization. This indicator for trade openness was adopted based on many published research works including Rodriguez and Rodrik (2001), Pritchett (1996), Yanikkaya (2003), Giles and Stroomer (2003), Cigno et al. (2002), Larrain and Choi (2004), McCarthy et al. (1987), Leamer (1987), Balassa (1978), Feder (1982), and Michaely (1977).

The regression analysis that investigates the effect of trade openness on economic growth by considering trade performance measures as indicators for trade openness like trade share (such as Dollar 1992, Feder 1983, Edwards 1998, and Harrison 1996) suffers from the problem of misspecification since trade share is considered as an endogenous variable. In fact, it may be economic growth that induces trade share to increase given the background that once the production process is initiated through increasing investment in an economy, it needs intermediate and capital goods that might not be available in the country in question as is the case in almost all developing economies. Then the country needs to import such goods to meet the requirements of the production process. Once the production capacity exceeds the domestic

aggregate demand of goods and services, export will increase accordingly if there are incentive export prices and hence the trade share will grow.

After 1990, the literature started to focus on trade policy as alternative measures of trade openness. To overcome the problem of trade share endogeneity, some analysts use trade policy measures instead of trade share in the regression analysis (Dollar 1992; Lee 1993; Sachs and Warner 1995; Harrison 1996). All these proxies of trade openness or outward-orientation policies suffer from the problem of omitted variables. For instance, countries that undertake free-market trade policies may also adopt free-market domestic policies and prudent fiscal and monetary policies that are highly correlated with economic growth. Omitting such variables from regression analysis will without doubt yield wrong and spurious results.

The failure of trade policy measures in accurately reflecting the degree of trade openness caused economists to search for new ways to represent trade openness. An alternative instrument for trade share has been introduced by using the gravity equation (Frankel and Romer 1999), which was built based on estimating trade share through some explanatory geographical variables including area, population, and distance between trade partners. This methodology of Frankel and Romer assumes that these variables are related to trade share and do not affect income. Rodriguez and Rodrik (2001) criticized the work of Frankel and Romer (1999) that had been built on the basis of employing geographical variables and argue that geography may affect income through channels other than trade.

The recent empirical literature employed various econometric methods to overcome the limitations that appeared in previous works in measuring trade openness, on one hand, and in examining the impact of trade openness on the other (Al Akayleh 2014).

Building on the understanding of the existing literature and based on its clearly stated objective, this study examines the impact of trade openness on economic activity and the role of accession to the WTO in this relationship.

The model

The problem of misspecification that arises when examining the impact of trade openness on economic activity and growth by considering the trade share as an explanatory variable can be solved by, first, specifying the effects of variables other than GDP on trade share. Therefore, this study will use a two-stage regression model to eliminate the misspecification problem. This is carried out by running a two-stage regression model. In the first stage regression model, trade

share as a measure of trade openness is the dependent variable, whereas a proxy for accession to the WTO will enter the regression equation of the first stage as an explanatory variable. This proxy is recognized as a factor affecting trade share. For accession to the WTO a dummy variable will be used. In the second stage the effect of trade openness on economic activity will be examined whereby the predicted values of trade openness that resulted from the first-stage rather than the actual values of trade share will be entered into the regression equation of the second stage. In this way, the endogeneity problem of trade share in GDP regression equation and the misspecification problem can be avoided.

The independent variable in the first-stage regression equation of openness index (or trade share) is a proxy for the accession to the WTO. This proxy is a dummy variable that represents the accession to the WTO (when the country becomes a full member of the WTO). For every year prior to Saudi Arabia's accession to the WTO, a value of zero is assigned to the dummy variable (WTO), i.e., 1994-2004, and a value of 1 for every year since Saudi Arabia's accession, i.e., 2005-2015. This dummy variable (WTO) is a very important independent variable that will be entered into the first-stage regression equation of the trade openness index (trade share) for the following reasons:

The agreement with the WTO includes a list of terms that are all meant to facilitate international trade. Hence, a direct effect on trade openness index of trade share.

A direct measure of trade openness is the tariff rate. All the WTO member countries should implement a gradual elimination of tariff on a large set of tradable goods. This implies that there is a negative impact of the accession to the WTO on tariff. The correlation coefficient between Saudi Arabia's accession to the WTO and average tariff rate during the study period (1994-2015) is -0.85. Such a strong correlation between two independent variables within the same regression system indicates a high degree of multicollinearity. Econometrically, the existence of multicollinearity will lead to spurious regression results. Therefore, the first explanatory variable that this model excludes is the average tariff rate since its effect is presented by the effect of the dummy variable (WTO).

Another explanatory variable that is recognized as an important indicator for trade openness is the collected tariff ratio (CTR) where the theory proves that there should be a strong and negative association between CTR and accession to the WTO. The correlation coefficient between Saudi Arabia's accession to the WTO and CTR during the study period (1994-2015) is -

0.85. Similar to “average tariff rate”, CTR must be excluded from the first-stage regression equation of openness index so as to avoid the problem of multicollinearity and it suffices to use the dummy variable (WTO).

The Saudi Arabia’s commitment to the Schedule of Concession and Commitments on Goods and to the Schedule of Specific Commitments in Services meant that Saudi Arabia made a total of 58 commitments to WTO member countries. These commitments have direct and indirect implications and effects on domestic exports, imports, domestic investments, foreign direct investments, foreign institutional investments, etc. These effects were reflected directly and indirectly on trade share.

Thus, entering the dummy variable of accession to the WTO into the first-stage regression equation of trade share will control for almost all the possible areas of effect discussed above.

It is possible now to construct the first-stage regression equation of the trade share as an index for trade openness. Such an equation can be written as follows:

$$OI_t = \alpha + \beta \text{WTO} + U_t \dots \dots \dots (1)$$

where,

“OI” is the trade share as an index for trade openness.

$$OI_t = \left(\frac{X_t + M_t}{GDP_t} \right) \times 100,$$

“WTO” is a dummy variable that takes a value of zero for all years before the Saudi accession to the WTO, i.e., for the period (1994-2004) and a value of 1 for all years since the accession to the WTO, i.e., for the period (2005-2015),

“U” is the disturbance term,

“t” time,

α and β are parameters,

X and M are domestic exports and total imports and,

GDP is the gross domestic product.

The predicted values of trade share (OI) that will be produced from regression equation (1) will be entered into the regression equation of economic activity (GDP). The predicted values of trade share that resulted from equation 1 show the effect of only the accession to the WTO on

trade share (OI). Trade share is affected by several variables and, since this study’s second objective is to estimate the impact of accession to WTO on economic activity, the predicted values that resulted from equation 1 show only that part of trade share which is explained by only the accession to WTO.

Now we turn to explain the second part of the model, i.e., the second-stage regression model. Recall that the second main objective of this study is to examine the effect of accession to the WTO on economic activity where the effect of accession to the WTO is embedded in the predicted values of openness index that have been produced from equation 1.

The second-stage regression equation is meant to estimate the impact of Saudi Arabia’s accession to the WTO on gross domestic product (GDP). The model main explanatory variable in the second stage is that part of trade share explained only by the effect of accession to the WTO, which is presented by the predicted values of trade share in the first-stage regression model. To adjust for the effects of other variables on GDP, the initial values of GDP will be entered into the second-stage regression equation in order to avoid the econometric problem of missing variables. This stage of the model is shown in equation 2:

$$GDP_t = \lambda + \psi_1 GDP_{t-1} + \psi_2 OI_t + U_t \dots \dots \dots (2)$$

where,

λ , ψ_1 , and ψ_2 are parameters and,

GDP_{t-1} is the initial level of GDP.

The model’s regression findings and discussion

Running the first-stage regression model of equation (1) yields results shown in Table 2.

Table 2:

First-stage regression equation – Dependent variable: Trade share (OI)

Explanatory variable			R ²	Model SE	N
Variables	Coefficient	t-value	0.75	6.05	22
Constant	$\alpha = +64.6$	35.3			

		(1.826)			
WTO	$\beta = +20.2$	7.8 (2.582)			

Source: Author's estimation

The time-series sample is 22 years (1994-2015), 11 years for the pre-accession to the WTO period and 11 years for the accession to the WTO period. The explanatory variable is a dummy variable for accession to the World Trade Organization and this dummy variable is denoted by WTO, as shown in Table 2. The dummy variable WTO takes the values of zero for the pre-accession to WTO period and the value of 1 for the accession to WTO period. The model's dependent variable is the trade share ($OI_t = \left(\frac{X_t + M_t}{GDP_t}\right) \times 100$) and its components' values were taken from the Saudi General Authority of Statistics (GASTAT).

The result of the first-stage regression equation (1) shows that the value of the coefficient of the dummy variable WTO (i.e., the proxy for accession to the WTO) is +20.2, which tells us that the trade share had been positively affected by an average of 20.2 percent as a result of the accession to the WTO. This result is consistent with the international trade theory and with the WTO's objectives, where the coefficient of the accession to the WTO's dummy variable has a positive and expected sign. This coefficient (β) is statistically significant at 1 percent significance level. However, the overall model has a goodness of fit that equals 75 percent, showing that 75 percent of variations in trade share in Saudi Arabia is attributable to the WTO and its related measures such as multilateral and bilateral trade agreements, the principle of Most Favored Nations, tariff reduction commitment, non-tariff barrier reductions, phasing out of governmental subsidies, etc. The remaining 25 percent of the variations might be attributed to a set of geographical, political, geopolitical, natural, and economic variables, which are beyond the scope of this study.

The main purpose of the first-stage regression equation (1) is the extraction of the predicted values of the trade share that is explained only by the accession to the WTO and not to estimates based on the actual total values of trade share. Fortunately, both the actual values' time-series and the predicted values' time-series are white noise, i.e., stationary time series free of autocorrelation problems.

The predicted values of trade share obtained from equation 1 will be entered into the second-stage regression equation (2) in order to estimate the impact of the accession to the WTO on economic activity. The result of the second-stage regression equation (2) is shown in Table 3. Data on GDP were obtained from the GASTAT. OI is the openness index presented by the extracted predicted values of trade share that are explained only by the effect of accession to the WTO.

The initial values of gross domestic product (GDP_{t-1}) are employed in the model to control for the effect of all explanatory variables other than the trade openness index as show in Table 3. Although the effect of variables other than the trade openness index is beyond the scope of this study, we have to control for their effects in order to produce the most robust results. GDP_{t-1}'s coefficient (Ψ_1) has a value of 0.80 and the expected sign. This coefficient is statistically significant at 1 percent significance level.

Table 3:

Second-stage regression equation – Dependent variable: Gross domestic product (GDP_t)

Explanatory variable			Adjusted R ²	Model SE	N
Variable	Coefficient	t-value			
Constant	$\lambda = -$ 928080.7	-1.99 (467307.9)	0.94	198662. 2	2 1
GDP _{t-1}	$\Psi_1 = +$ 0.80	+ 8.65 (0.09)			
OI _t	$\Psi_2 = +$ 17056.8	+ 2.23 (7489.1)			

Source: Author's estimation

The model main independent variable is the openness index (OI), which is the predicted values of trade share that were extracted from equation 1. The coefficient of OI is Ψ_2 and equal to +17056.8. The economic interpretation of the Ψ_2 's value is that the accession to the WTO has a positive impact on economic activity in Saudi Arabia where the accession to the WTO resulted

in an increase in GDP by an average of SR 17.1 billion. This estimate is reliable and robust as it is statistically significant at 5 percent significance level.

The overall model, however, is reliable and shows a goodness of fit where the adjusted R² is equal to 94 percent and this determination coefficient is statistically significant at much less than 5 percent. Further, the autocorrelation problem does not affect the robustness of the results where Durbin-Watson Statistic is very close to 2.0 (i.e., 1.9).

The reviewed literature showed different results on the effect of trade openness on economic activity and growth. The result of this study, however, is consistent with the international trade theory and with the objectives of the WTO. Saudi Arabia as an oil-driven economy is rich in crude oil but relatively poor in many other production resources. Considering the Saudi GDP components, 90 percent of final consumption is imported, 80 percent of government revenues are oil revenues, and 85 percent of exports are oil exports. Thus, total consumption and total production depend mainly on international trade.

Concluding remarks

Export trend analysis showed that the remarkable growth in total real exports is attributed to a remarkable rise in real oil prices that have increased from an average of US \$ 27.2 per barrel during 1994-2004 to an average of US \$ 72.6 per barrel during the post-accession period (2005-2015). More importantly, the second finding of the export trend estimation analysis is that non-oil real exports have worsened after the Saudi membership in WTO. On the import side, except during the world financial and economic crisis of 2008-2009, the share of Saudi import in non-oil GDP showed an upward trend, indicating an increasing import penetration in the Saudi economy.

Since the largest share of oil export is crude oil, the Saudi export movement is to a large extent governed by natural resource endowment of the Heckscher–Ohlin Trade Model and not by factor productivity. The remaining share of oil export is in form of manufactured oil and petrochemicals, reflecting some sort of Ricardian Comparative Advantage and internal economies of scale due to the cheap inputs of such products. This pattern of trade has not changed after the accession to the WTO.

After the accession to the WTO, Saudi export regional trade partners remained unchanged with Asian (non-Islamic, non-Arab) countries, the European Union, and North America dominating almost 80 percent of Saudi total export. During the pre-accession to the

WTO period, out of the total export, 62 percent went to the United States of America (17.8 percent), Japan (14.9 percent), South Korea, Singapore, India, Holland, France, and South Africa. The same geographical distribution of exports remained in the post-accession period except that China moved up to take the third rank with a share of 10.9 percent. Similar to exports, Saudi import markets concentrated (with a share of 76 percent) in Asian (non-Islamic, non-Arab) countries, the European Union, and North America without a change after the accession to the WTO (Table 1). Since imports have dramatically increased from all the main trade partners, this is a direct indication that the import penetration level has further increased in the post-accession to the WTO period. Saudi imports from the United States continued to dominate the total import share in the pre- and post-accession to the WTO periods. Yet, the stunning U-turn in the Saudi import market is the overwhelmingly increased share of China's share in Saudi imports, which has jumped from 4 percent in the pre-accession to the WTO period to 12 percent in the post-accession to the WTO period. In recent years, China became the number one market for Saudi imports.

The Saudi trade balance excluding oil exports is, with no doubt, always in deficit. But the bitter fact is the tremendously increasing deficit in the non-oil trade balance, and the astonishing deterioration was since the Saudi accession to the WTO.

Export concentration index was very high during the entire study period with an overall average of 80 percent. This is a clear indicator that export diversification is very low in Saudi Arabia and is concentrated mainly in oil and petrochemicals. More importantly, the H–H index trend coefficient indicates that the concentration index has increased from 0.80 during the pre-accession to the WTO period to 0.85 in the post-accession to the WTO period, indicating less diversified exports.

The analysis of intra-industry trade showed that the Saudi accession to the WTO was associated with economies of scale for 52 percent of Saudi trade either in Saudi Arabia or in its trade partners. This is as 46.7 percent of Saudi trade is concentrated in goods that have a comparative advantage either for Saudi Arabia or for its trade partners, and 1.2 percent of trade has factor relative abundance either for Saudi Arabia or for its trade partners.

The first-stage regression equation showed that Saudi Arabia's accession to the WTO has a positive direct and indirect impact on the trade share. Considering the WTO agreement and trade and economic measures that are all related to WTO objectives, the accession to the WTO

resulted in an average increase of 20 percent in total trade share. Furthermore, in the second stage of the regression model, that part of trade share explained by the accession to the WTO has a positive and significant impact on economic activity (GDP).

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US FOREIGN POLICY TOWARDS CENTRAL ASIA AND THE KEY ROLE OF KYRGYZSTAN by Asst. Prof. Elnur Hasan Mikail, Kafkas University, Kars, Turkey, emikail@turansam.org and Cavit Emre Aytekin, Kafkas University, Kars, Turkey

Abstract: This study seeks to clarify the overall shift in Central Asian political structure and paradigmatic changes in the US foreign policy regarding the Central Asia after significant effects of the end of Cold War and the September 11 attacks to the US. The main aims of this essay to discover the causal backgrounds of US involvement in Central Asia and US foreign policy towards Kyrgyzstan in line with that involvement strategy. In this endeavor the essay will be structured on 5 subtitles as; the post-soviet era in international system and central Asia, the US foreign policy priorities in early Post-Soviet times, US main interests in Central Asia before September 11 attacks, US involvement in the Central Asia after September 11 attacks and lastly the US foreign policy towards Kyrgyzstan constitutes the contents of this study.

Keywords: Central Asia, Kyrgyzstan, US Foreign Policy.

Introduction

During the Cold War years, the Central Asian states were parts of the Soviet Union, and in accordance with the bipolar international system, and the Central Asia region was not the strategic priority for the United States. That attitude of the US towards Central Asia was motivated mostly by two factors, the first factor was the implementation of famous geopolitical thesis of the Halford Mackinder, known as *heartland*, to the US Cold War policy which gives geographic priority largely to the Eastern Europe.

That policy was started with the Kennan's proposal in 1947 and remained the grand strategy for US during Truman's and Eisenhower's presidencies and following years. The second factor was, the belief that, the Central Asia is the most difficult region to eliminate the Soviet influence (Erhan, 2004, p.127). However the Soviet invasion of Afghanistan in 1979 constituted the first exceptional involvement of US in the Central Asian politics. And from that point the conventional US Cold War strategy of containment was carried on in the Central Asian region with supporting Islamist anti-communist movements known as the Green Belt policy of Jimmy Carter.

The Post-Soviet Era in International System And Central Asia

The key term in explaining the post-Soviet international system is generally considered as the "unipolarity". According to some influential scholars in the US, or the Western World in a

more broader sense, The United States became the only global power after the collapse of Soviet Union, and must pursue the policies of maintaining that unique situation through seeking global-level interests such as expansion of democracy towards the post-Soviet regions and preventing possible conflicts and instabilities in those regions. In that unipolar moment, the Central Asia gained more importance for United States because, there are newly-building states and that process of state-building would determine the future of the region.

Discussion about the role of the US in international politics after the Cold War have raised new strategies and advances in US foreign policy. The most referred examples of those strategy discussions was Zbigniew Brzezinski's famous book titles "*The Grand Chessboard*". Accordingly, in the changed world structure requires US involvement in vast spaces appeared in the Eurasia continent in post-Soviet era (Brzezinski, 1997, p.35). And as Central Asian strategy, in the unipolar world the US must prevent any other states to aspire power over the Eurasia in general (Brzezinski, 1997, p.198).

The US Foreign Policy Priorities in Early Post-Soviet Times

As throughout the Cold War years, the Central Asia region was not among the foreign policy priorities of the US. The United States rather focused on the Gulf War, Bosnia and Kosovo Wars and the future of Russia. However, along with those issues the US started to re-define its interests and role in the World politics which consequently increased the attention of US to the Central Asian states.

The future control over Caspian energy sources rises the importance of the newly-established states over that *strategic* region and the US wanted to break any possible Russian monopoly over the region, and that policy was considered as a challenge by the Russia and China (Blank, 2007, p.313).

An important indicator of US foreign policy priority in early post-Soviet era was the *Russia First* policy, which corresponds the transformation and orientation of the Russia Federation's identification in line with the Western-style democratic and liberal model. Thus it was clear that, democratization and stability which were the main interests of US in post-soviet territory were depended on the transformation of Russia firstly (Cohen, p. 1997).

Therefore, the US paid high-level attention to the democratization and liberalization of Russia and Central Asian states, so that at the beginning of independency process of post-Soviet states the US specified the democratization, human rights, and adoption of market-oriented

economic regulations as the conditions of legal recognition for post-Soviet Central Asian States (Samanchina, 2004, p.28).

Another foreign policy initiative of the US was the *partnership for peace* program via NATO towards the Central Asia. In that policy, the Central Asian Republics of Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan were included, so the *partnership for peace* program can be considered as a part of US policies based on the importance given by the US to the democratization and westernization of the post-Soviet territories (Bağbaşıoğlu, 2014, p.91).

US involvement in the Central Asia after September 11 attacks

The September 11 attacks to the US, together with the George Walker Bush's came to the presidency in advance constituted a total change in US foreign policy priorities in global level and the position of the Central Asia in US global strategy. The US officials started to discuss US interests are stood in the Central Asian region (Erhan, 2004, p.139). At that point it can be said that for the US the concept of interest was gained a broader meaning and geopolitics became a component of the determination of US interests in Central Asia.

Terrorist attacks in the US territory, brought a new concept of international threat as international terrorism, and counter-terrorism became the primary strategy of United States towards Central Asia, from now on the threat of international terrorism started to be at the core of strategic involvements, bilateral relationships and cooperation options of the US. The relations of US with the central Asian states became a vital part of achieving US national interests, therefore the Afghanistan intervention became the first military involvement of US which was followed by US attempts to found military cooperations and military bases in the Uzbekistan, Kyrgyzstan and Tajikistan. As a result of that attempts, the US has achieved to form military bases in Uzbekistan and Kyrgyzstan (Jamankulova, 2011, p.39).

Increased priority of counter-terrorism in US foreign policy priorities became a fostering factor of other, subsequent US interests such as democratization, control over energy resources and bilateral relations in the Central Asia. Thus the foreign policy goals of the US in the Central Asia after September 11 attacks can be summarized as follows (Jamankulova, 2011, p.41);

- Protecting stability in the region,
- Supporting the transition process of post-soviet states to a liberal economy,
- Preventing any other monopoly power, especially Russia through the Community of Independent States, over the Central Asia region,

- Preventing the possibility of the export of Iranian regime towards the region

As clearly understood, in order to achieve those goals, the most important step of the US was the establishment of military bases in Uzbekistan and especially in Kyrgyzstan because of the capacity of Manas military base in Bishkek. Therefore the US-Kyrgyz relationship became the key factor of determining US foreign policy towards the Central Asia and interests in post-September 11 era.

The US Foreign Policy Towards Kyrgyzstan

The initial step of US-Kyrgyz relations was the recognition of the Kyrgyzstan as an independent state by the US in 27 December 1991 (Jamankulova, 211, p.44). And that step was progressed by the opening of US embassy in Bishkek in 1992. And Kyrgyzstan's rapid policy of joining international organizations such as the UN, OSCE, World Bank, IMF for the purpose of strengthening its international legitimacy has contributed US-Kyrgyz relationship. Another important point was that Kyrgyzstan was the first Central Asian state to join the Partnership For Peace program which was established by the US as mentioned above.

The changed US foreign policy towards Central Asia after the September 11 attacks had a crucial but constructive effect on US-Kyrgyz relationship. Kyrgyzstan used the counter-terrorist discourse and campaigns to foster its legitimacy in the International System and in the eyes of the US by expressing support to the US campaigns by allowing it to use its airspace at first. The US appealed to use the Manas airport for military operation in Afghanistan in November 2001 (Jamankulova, 2011, p.48). Kyrgyzstan has accepted that request and then the US has founded a military base in Bishkek thus Kyrgyzstan played an important role in the Afghanistan war of the US. Kyrgyzstan aimed to achieve economic gainings and investments from the US by allowing US military presence in Manas military base.

However later in the process US foreign policy towards Kyrgyzstan has changed because of the disagreements between Akayev government in Kyrgyzstan and the US. In the Akayev's era Kyrgyzstan has allowed Russia to found a military base in Bishkek, 30 KMs away from the US base (Jamankulova, 2011, p.48). But the change of the government as a result of the 2005 revolution in Kyrgyzstan has ended that trend in US-Kyrgyz relationship. And along with the Bakiyev government in Kyrgyzstan the bilateral relationships between two states continued to have a constitutive character in terms of common interests of both states.

Conclusion

Since the Cold War period the US foreign policy towards Central Asia has gone through three important breaking points. Each of those turning points in US attitudes towards the region were based on the definitions of interests, threats and foreign policy priorities of the United States in global level. During the Cold War era the Central Asia was regarded as the most difficult part of the Soviet Union to have an influence for the US, so in those years the US was trying to continue its cold war struggle with the Soviet Union mostly on the Eastern Europe and the Pacific region.

In the aftermath of the Soviet Union, the new realities of the region such as the building process of post-Soviet states, their state-formation and identification were seen as important for US interests in that era which were the protection of the unipolar international order, promotion of democracy, liberal open marked-based economic model all over the world and the stability. Therefore the US interest in that era in the Central Asia was based on those facts.

The last breaking moment of the US foreign policy towards post-Soviet Central Asia was the September 11 attacks. The attacks constituted the initial moment of International terrorism and Islamic fundamentalism which finds their origins in the unstable regions of post-Soviet territories and especially in the nationalization process of the Central Asia such as Afghanistan, Uzbekistan. The principal interests of the US was to prevent terrorism and build bilateral relationships and regional cooperations mostly in terms of military power. In that point the key partner of the US strategy was the Kyrgyzstan. Kyrgyzstan has provided an important logistic support for US military strategy in Afghanistan.

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HUMAN CAPITAL OF BOARDS OF DIRECTORS AND INNOVATION: AN EMPIRICAL EXAMINATION OF THE PHARMACEUTICAL INDUSTRY by Stephen V. Horner, Pittsburg State University, shorner@pittstate.edu and Alix Valenti, University of Houston-Clear Lake, valenti@uhcl.edu

Abstract: The provision of human capital is one of the most important reasons why individuals are appointed to a board of directors. In the case of industries that are highly reliant on innovation and the ability to bring new products to market, firms will appoint outside directors with the knowledge, skills, and experience that are strategically relevant to the firm's innovation outcomes. Specifically, we hypothesized that the medical background, education, financial proficiency, pharmaceutical industry experience, and past or present CEO experience of outside directors would be positively related to a pharmaceutical firm's level of innovation measured by R&D activity and patent filings. We found that medical and advanced scientific degrees held by outside directors were predictors of R&D spending and the number of patent filings. Control variables of firm size and board tenure were also associated with innovation. The absence of a stronger relationship between outside director human capital and innovation suggests the existence of other more salient drivers of innovation such as insider characteristics and managerial know-how.

Key words: Board of directors, Human capital, innovation.

INTRODUCTION

Human capital refers to an individual's expertise, experience, knowledge, reputation, and skills (Becker, 1964; Coleman, 1988; Hillman & Dalziel, 2003). Human capital theory distinguishes among team level, firm level, and industry level experiences (Kor & Sundaramurthy, 2009). Some human capital is generic (general) such as education or general business experience and is deployable across multiple and somewhat varied contexts (Becker, 1964; Dimov & Shepherd, 2005; Hatch & Dyer, 2004; Le, Kroll, & Walters, 2013; Nonaka, 1994). Other human capital is specific and limited to less general but still broadly similar contexts such as industry, functional, and general management experience (Amit & Schoemaker, 1993; Kotter, 1982). Yet other types of human capital are firm specific and constrained by their more limited contexts such as event specific experience and firm specific procedures, routines, and practices. (Hatch & Dyer, 2004; Le, Kroll, & Walters, 2013). Firm specific human capital is

knowledge applied in a particular firm (Amit & Schoemaker, 1993), and in some cases, firm specific knowledge may be so specific that it is only imperfectly deployable in other firms. For example, human capital acquired from rivals often requires “dynamic adjustment costs” (Hatch & Dyer, 2004: 1156) in the process of adapting the human capital to the new context (Cappelli & Singh, 1992; Hatch & Dyer, 2004; Mahoney & Pandian, 1992; Mahoney, 1995; Penrose, 1959; Prescott & Visscher, 1980; Teece, Pisano, & Shuen, 1997). Such firm specific capital that is usable only in a single firm may create “isolating mechanisms” characteristic of both resource heterogeneity and resource immobility (Barney, 1991) that lie at the core of a firm’s competitive advantage (Rumelt, 1984). Thus, the range of human capital includes general knowledge and skills, to context specific knowledge and skills, to knowledge and skills potentially deployable only within a single firm.

Boards of directors represent a confluence of human capital singularly focused on the overall direction of the respective focal firm suggesting the existence of a type of human capital that is uniquely oriented toward corporate governance. Board human capital describes the unique skills and expertise in corporate governance brought to the focal firm by directors and their respective boards. That is to say, board human capital is the bundle of skills, knowledge, and perspectives brought to the board by outside directors collectively (Johnson, S., Schnatterly, & Hill, 2013). Experience developed at their home firms, additional experience developed through multiple board appointments, and industry experience developed over the course of their careers constitute potentially valuable human capital that outside directors bring to the firm’s board. This includes CEO experience, financial and venture capital experience, familiarity with specific events, industry experience, and overall focal firm familiarity (Johnson, S. et al., 2013). Among the outcomes associated with human capital of the board are sales growth (Kor & Sundaramurthy, 2009), post-acquisition performance (Walters, Kroll, & Wright, 2008), changes to top management teams (TMT) (Boeker & Wiltbank, 2005; Bruton, Fried, & Hisrich, 1997), and CEO successions (Tian, Halbelian, & Rajagopalan, 2011). This study further explores the role of board human capital in fostering innovation and learning at a focal firm.

BOARD ATTRIBUTES AND FIRM STRATEGY

The role of the board of directors in providing strategic direction and counsel has been recognized as a primary function of a corporation’s board. As part of their external

organizational role, boards link their focal organizations to critical environmental resources and information lying in a network of interlocking directorates (Finkelstein & Hambrick, 1996; Pfeffer, 1972; Price, 1963). Internally, in addition to their monitoring role, boards also perform policy roles of advice and counsel and ratification of strategy (Fama & Jensen, 1983; Finkelstein & Hambrick, 1996). Much of these external and internal roles are heavily informed by certain levels of expertise and skill (Baysinger & Butler, 1985). In their seminal work, Pearce and Zahra (1992) noted the three traditional roles played by board members: service, strategy and control. They proposed a strategic contingency perspective for determining board composition. They argued that an organization's core strategy should be an important consideration in selecting board members because they can assist in reducing uncertainty, define relevant stakeholders, and determine resource requirements. The authors made several predictions as to the corporate strategy adopted and both board size and the ratio of insiders and outsiders. Specifically, they hypothesized that external growth, diversification, and leveraged capital structure strategies lead to increases in the size of the board and the number of outsiders, while a concentration strategy predicts smaller boards and fewer outsider directors. The authors also anticipated that neither an internal growth strategy nor a retrenchment strategy would have an effect on board size or outsider representation. Their empirical analysis supported most of their hypotheses suggesting that strategy does in fact determine board structure and composition.

Later work continued the theme noting the need to examine the role of the board from a perspective other than agency theory. These studies were basically in agreement that strategic advice, financial contacts, and human capital were all resources that board members could provide through service on the board (e.g., Hillman, Cannella, & Paetzold, 2000; Mizuchi, 1996). For example, Hillman and colleagues (2000) rely on resource dependence theory to suggest that outside directors establish a link with the environment to better enable firms to deal with environmental uncertainties. O'Sullivan (2000) posits that board members are in a position to influence the manner in which resources are allocated to strategic projects including investments in innovation.

Board structure and composition firmly sit at the core of theoretical and empirical investigation of the domains of governance and strategic management and have been the focus of the majority of board research (Finkelstein, Hambrick, & Cannella, 2009; Zahra & Pearce, 1989). Structure concerns the formal organization of the board of directors and its major

dimensions are size (number of directors), the division of the board chair and CEO roles, and the board committees. Board composition describes the organization affiliations of each director, the demographic background of each, and the expertise each brings to the board (Finkelstein, Hambrick, & Cannella, 2009).

The effect of board structure on firm innovation has been studied from several viewpoints. Some research looked at board size and hypothesized that larger boards would be more conducive to innovation because a greater number of directors implied more knowledge and skills as well as a greater number of differing perspectives (Jaskyte, 2012). Wu (2008) found a positive relationship between efficient R&D activities and board size. On the other hand, larger boards are more likely to experience conflict and communication problems, require more coordination (Alexander, Weiner, & Bogue, 2001), and diffuse responsibility promoting free riding (Alchian & Demsetz, 1972).

A dimension of board composition that has been the subject of scholarly inquiry is demographic diversity. Implicit in many of these studies was the conclusion that more diverse boards could better serve management in providing strategic advice. Diversity on the board offers a competitive advantage to the firm because members have a broader understanding of markets and can bring differing points of view to solve problems. “Board diversity provides the firm with human and social capital resources that help the board to generate ideas, allocate resources and find opportunities, thereby increasing innovation.” (Galia & Zenou, 2012: 631). Thus, studies have examined the effect of board diversity on such outcomes as innovation and reputation (Galia & Zenou, 2012; Miller & Triana, 2009) and generally find a positive relationship among age, gender, and racial diversity and innovation, measured by product, organizational, and marketing innovations, but not process innovations.

A third focus area has relied on the distinction between boards dominated by outsiders and those with a significant number of insiders. The relationship between the percentage of outsiders on the board and firm performance has been extensively studied using an agency theoretical framework, producing mixed results at best (e.g., Agrawal & Knoeber, 1996). Hung and Mondejar (2005) found no significant correlations with any of their variables measuring entrepreneurial innovation with their measure of board composition, although share ownership by directors was found to be positively related to risk-taking. In a study of the antecedents of innovation activities, it was found that firms whose boards were dominated by inside directors

were more likely to engage in innovation activities (Chouaibi, Affes, & Boujebene, 2010). These authors theorized that insiders were more efficient than outsiders because they had specific information and direct access over critical resources, allowing them to better assess the risks associated with innovative projects. Insiders, it was further theorized, are more likely to focus on internal projects rather than external acquisitions.

Directors' scientific expertise and innovation

Experience in a specific domain tends to impact decisions related to that experience and to subsequent outcomes (Johnson, S. et al., 2013). Outside directors serve as potential sources of experience, expertise, counsel, and alternative viewpoints (Hermalin & Weisbach, 1988). Boards of directors bring to the focal firm a breadth of experience due to the diversity of outsiders' occupations and a depth of experience as a result of directors' typically long periods of service within and to organizations. The breadth and depth of this experience has been shown to impact firm outcomes. Outside director experience as CEO of an acquiring firm improved acquisition performance of the focal firm dependent on the type of acquisition (Kroll, Walters, & Wright, 2008; McDonald, Westphal, & Graebner, 2008). Prior experience acquiring a target in the same product market was associated with higher focal firm acquisition performance. If the acquisition was related, outside director experience with related acquisitions was associated with higher related acquisition performance. If the acquisition was unrelated, outside director experience with unrelated acquisitions was associated with higher unrelated acquisition performance. (McDonald, Westphal, & Graebner, 2008). Experience brought to the firm by outside members of the board of directors strengthens the pool of knowledge held by members of management, particularly board insiders. This experience is often linked to a range of outcomes and these relationships become part of the firm's knowledge domain or human capital.

Human capital consists of an individual's set of skills, knowledge, connections, and expertise developed through education, training, and experience (Becker 1993; Kor & Sundaramurthy, 2009). Making use of one's human capital by repeatedly performing certain tasks tends to enhance the level of expertise in that task (Tian et al., 2011). The sum of the skills, knowledge, experience, and expertise of directors on a corporate board comprise the board's human capital, and research on boards demonstrates an empirical link between specific human capital within a given context and the likelihood of board appointments given the focal firm's need for such context-specific expertise (Withers, Hillman, & Cannella, 2012). Outsiders bring

to the firm information, skills, and knowledge developed through experience that is deemed beneficial to the firm and related to anticipated firm outcomes. Hence, outside directors are recruited to the focal firm's board, in part, for their human capital that is strategically relevant to the outcomes desired by the board and firm's management.

One aspect of the board's human capital is the scientific expertise they bring to the firm, and this scientific expertise can be strategically relevant to firms dependent on innovation for their long term survival such as firms in high tech fields and in healthcare and pharmaceuticals. The impact of scientific training, particularly advanced degrees in scientific fields, has demonstrated mixed effects on focal firm innovation. Dalziel, Gentry, and Bowerman (2011) found a negative effect of advanced educational degrees of outside directors on R&D expenditures and found the number of Ivy League degrees on the board to be positively related to R&D expenditures. Audretsch and Lehman (2006) showed directors possessing advanced academic degrees to be vehicles for accessing and absorbing knowledge from spillovers. By contrast, the total number of college degrees among directors showed a positive impact on innovative performance (Wincent, Anokhin, & Ortqvist, 2010). These findings based on education level of the board, particularly of outside directors, come from a wide variety of contexts and likely represent a variety of constructs (Johnson, S. et al., 2013). In certain contexts, such as firms in high tech industries where innovation is a critical part of strategy and a necessary outcome linked to long term viability, the ability to advise, monitor, and serve may be facilitated by technically oriented human capital that is particularly attuned to the importance of innovation. Hence, the education level of the board in innovation-intensive firms may be key in driving innovation outcomes.

Hypothesis 1: The presence of outside directors on the board with advanced scientific degrees is positively related to innovation.

Directors' financial expertise and innovation

The financial expertise of outside directors empirically demonstrates an impact on firm outcomes, particularly financial performance, and may positively impact a firm's investment in R&D. Rosenstein and Wyatt (1990) reported a positive market reaction to the appointment of outside directors, although they found no significant effect for any of the occupational classes of those outsiders (e.g., financial, corporate, and neutral outsiders). In contrast, other studies have reported such "occupational class" effects. The investment community is often expressly

approving of firms whose boards possess financial expertise with the ability to understand and communicate with financial markets, with investors, and with analysts. Tian and colleagues (2001) reported favorable stock market reactions to appointments of CEOs made by boards having higher levels of human capital when measured by the level of industry experience among current directors. Fich (2005) reported a positive response by financial markets upon appointment of active CEOs to corporate boards, and this effect was more pronounced when newly appointed directors were CEOs of commercial banks. This phenomenon is important for younger firms relying heavily on equity funding as well as for older firms relying on legitimacy in financial markets. On balance, research suggests that financial markets tend to favorably view boards whose directors bring financial expertise.

Efficient market theory (Fama, 1965) posits that investors (and the financial markets of which they are components) are intendedly rational in assessing a firm's potential future cash flows based on all publicly available information. Intendedly rational investors will approve of investments that will lead to future cash flows in excess of the firm's risk-adjusted cost of capital. As particularly capable members of the financial community, outside directors with expertise in the financial markets may be better able to understand and communicate with financial markets, investors, and analysts than those without financial expertise. In addition, they often represent their home organization in and to financial markets. Furthermore, they may have greater understanding about linking current activities with future outcomes (Heiner, 1983). They tend to have greater capacity for inference than those with non-financial expertise, are linked with other financial experts creating potential information economies of scale in accessing, collecting, and analyzing financial data, often have access to sophisticated computer aided information technology, and are professional decision-makers (Heiner, 1983; Hansen & Hill, 1991). This tendency may be even more pronounced in industries such as pharmaceuticals in which firms' long term viability depends heavily on innovation resulting from productive R&D expenditures (Hansen & Hill, 1991). Furthermore, financial expertise likely includes a capacity for such directors to make a link between strategic decisions such as R&D expenditures and subsequent positive firm performance. Thus, due to their enhanced competence at making rational financial decisions, directors with financial expertise may possess strategically relevant financial skills and may be more likely to approve R&D investments. Hence,

Hypothesis 2: The presence of a director with financial expertise is positively related to focal firm innovation.

Measurement of board characteristics includes binary measures noting presence of a particular characteristic, count measures noting the number of members with the characteristic, and ratio measures typically noting the proportion of directors possessing the characteristic. For example, Bilimoria and Piderit (1994) used a binary measure of director occupation assigning a value of 1 for directors primarily employed in a corporation, financial institution, or law firm. Krause, Semadeni, and Cannella (2013), using both binary and count measures, demonstrated that the presence of a COO director impacted focal firm financial performance under changing conditions of focal firm operating efficiency and found the effect even greater with the presence of multiple COOs on the board. Hambrick, Misangyi, and Park (2015), also using binary count measures, propose that while if at least one director possesses all the qualities necessary for effective monitoring, having multiple directors with those qualities will improve effective monitoring even more but with diminishing returns to scale. Therefore, the higher the number of directors with a characteristic, the greater may be the outcome.

Hypothesis 3: A higher concentration of financial expertise among directors is more positively related to focal firm innovation.

Board human capital, the skills, knowledge, and experiences directors bring to the board (Hillman & Dalziel, 2003), may include financial expertise including venture capital (Johnson, S. et al., 2013). Studies have found a positive correlation between venture capitalists (VC) and technological innovation, suggesting the importance of equity investments in financing innovation (Timmons & Bygrave, 1986). Firms that employed venture capital financing were found to have performed significantly better in terms of their innovation output (Kortum & Lerner, 2000; Peneder, 2010). In a case study of the role of venture capital investment subsequent to a management buyout, Bruining and Wright (2002) found that investment in innovation increased as a result of the VC's frequent monitoring and review of the firm's R & D activities. Using patent applications as a proxy for innovation, Engel and Keilbach (2007) found that venture-funded firms in Germany had more patents prior to the venture funds' investment when compared to firms that did not rely on venture capital, but after the investment, patent applications did not differ significantly among all firms in the study. However, the firms with venture capital financing grew significantly faster subsequent to VC financing compared to other

companies using internal funding (Audretsch & Lehmann, 2004). Hellmann and Puri (2000) suggested that better than average performance and growth could be attributed to that fact that venture firms provided not only financial support but also managerial advice in non-technical areas, such as monitoring, human resources, and commercialization. Venture capital firms also act as a catalyst for forming networks that enhance information flows and create important linkages that accelerate the innovation process (Florida & Kenney, 1988). In their study of high tech firms in the Silicon Valley, Ferrary and Granovetter (2009) suggested that venture capital firms contributed to the industry's successful innovation network in five significant areas: financing, selection, collective learning, embedding, and signaling. In addition, venture capital is often a positive influence on a company's development of its absorptive capacity and internal R&D (Da Rin & Penas, 2007).

The benefits provided by venture capitalists to their portfolio firms are often achieved through their roles as members of the board of directors. Venture capitalists often demand representation on the board (Gabrielsson & Huse, 2002). By being active on the board, directors who are VCs or who represent venture capital firms may provide specific human capital benefits to firms on whose boards they serve, and to the extent that the director has expertise other than purely financial, he or she can provide even more value added in the form of human capital. For example, higher percentages of VC directors are more likely to make top management team (TMT) changes (Boeker & Wiltbank, 2005; Bruton, Fried, & Hisrich, 1997), are associated with stronger corporate governance (Filatotchev, Wright, & Arberk, 2006), and are positively associated with post-IPO financial performance (Kroll, Walters, & Le, 2007). Whether the interests of venture capital investors are represented on a board either directly through board service by a member of the venture capital firm or through service of a representative of the venture capitalist's interests, significant attention will be paid to the management of the company; directors representing venture capitalists' interests are likely to be well informed and closely attuned to the focal firm's operations (Bruton, Fried, & Hisrich, 1997; Fried & Hisrich, 1995). Because the venture capital firm has a large stake in the firm's financing, it is especially concerned with the sustainability and profitability of its investment. We suggest that venture capital directors are more likely to promote innovation especially in industries where there is a heavy reliance on innovation for firms' survival.

Hypothesis 4: The positive relationship between financial expertise and focal firm innovation will be greater for venture capitalists than for other types of financial experts on the board.

Directors' Experience as CEOs and Innovation

The considerable experience, knowledge, and expertise that CEO directors bring to the board comprise potentially valuable human capital. Service by active and former CEOs as directors provides several benefits to focal firms in the form of board human capital (Hillman & Dalziel, 2003). First, the business experience of a director who is also an active CEO enhances the overall general management expertise available to the focal firm's strategic leaders. Scholars note that CEO experience is an important source of business expertise (Bianco & Byrne, 1997; Hillman, Cannella, & Paetzold, 2000) benefiting a wide range of board decisions. Service as a top executive involves experience driving the overall direction of the activities of an entire organization and membership in the firm's dominant coalition (Cyert & March, 1963). The general management skills developed as an organizational leader complement the governance skills allowing greater transferability of leadership from a management context to a governance context through involvement in decisions of considerable organizational significance and in dealing with powerful personalities and egos and diverse opinions. These directors provide a firm with the benefit of advice and counsel resulting from their expertise and skill. This human capital may enhance the capacity of the board to advise, counsel, ratify, and monitor the firm's management and strategic direction (Fama & Jensen, 1983). Fahlenbrach and colleagues (2010) demonstrate that the value of the board's advising and monitoring functions particularly for firms with high advisory needs such as small and/or growing firms and those headed by young or less experienced CEOs may be enhanced by CEO directors' authority and strategic leadership experience (Hermalin & Weisbach, 1988).

Second, appointment of a CEO director enhances overall board human capital by bringing legitimacy to the focal firm through directors' membership within the corporate elite (Useem, 1979). A central notion of the resource dependence perspective (Pfeffer & Salancik, 1978) is that prestigious individuals are recruited as directors to enhance the legitimacy of the

focal firm. Investors often signal their approval of appointment of CEOs as outside directors, and Fahlenbrach and colleagues (2010) see a CEO's acceptance of a seat on another firm's board as signaling sufficiently high estimates of that firm's future prospects. Third, information and expertise from the CEO director's service on other boards increase the focal firm's resources and knowledge of trends and practices that can favorably impact its managers' decision-making (Becker, 1964; Carpenter & Westphal, 2001: 654). The structural position of the board and its individual directors is a key component of human capital due to the importance of information directors often bring to the firm through external interconnections (Haunschild, 1993; Zajac & Westphal, 1996). Such formal and informal connections with and authority within organizations in the focal firm's institutional environment may be sources of external information that, when included as inputs to the focal firm's information processing system, lead to a reduction of uncertainty for the focal firm.

The human capital brought by CEO directors is homogeneous in the sense that all CEOs experience similar decision contexts, thus implying that CEO director human capital is fairly general human capital. While individual CEO directors may experience similar situations, the responses to those situations may be very diverse, making board level human capital somewhat specific in nature (Tian et al., 2011). In addition, theoretical development of board CEO experience and new CEO appointments demonstrates the tacit nature of CEO directors' knowledge. The general human capital brought by active CEOs to the boards of other firms where they serve as directors includes experiences such as dealing with the complexity of the tasks of being a CEO, integration of functional managers' knowledge and capabilities, skills in "communication, leadership, and conflict resolution" (Mintzberg, 1973; Tian et al., 2011: 733; Zhang & Rajagopalan, 2004), developing firm strategic vision and communicating it to external constituents, and making strategic decisions that are typically quite complex (Lorsch & Kurana, 1999). The generalized experiences of seasoned CEOs involved in service as directors on other firms' boards comprise the board's stock of resources and capabilities, while additional preparation and involvement to gain adequate understanding of firm and its operations (Kesner, 1988) comprise the flow of resources and capabilities (Dierickx & Cool, 1989).

A board may experience enhanced advising and monitoring functions as a result of the addition of a CEO director with industry experience similar to that of the focal/appointing firm. This may strengthen the effectiveness of interaction within the board at large, among outside

directors, and with the firm's top management team. The business experience of strategic leaders is shaped in part by the industry context in which their skills developed and by the nature of industry-specific strategic decisions they may have faced in the past (Bluedorn, Johnson, Cartwright, & Barringer, 1994; Mintzberg, 1988). Industry experience may represent valuable human capital by helping the focal firm access critical resources and initiate new business relationships (Burt, 1992; Hillman, 2005; Pfeffer, 1972) and may increase the level of communication (Smith, Smith, Olian, Sims, Jr., O'Bannon, & Scully, 1994). For example, research demonstrates a positive association of industry experience with sales growth of high technology firms (Kor & Sundaramurthy, 2009), stock market reactions following acquisitions (Walters, Kroll, & Wright, 2008), and CEO successions (Tian et al., 2011). Similarity of industry contexts of both focal and appointing firm is more likely to enhance CEO directors' perception of their ability to contribute strategically and to become more effective advisors and monitors (Carpenter & Westphal, 2001). Such similarity is driven in part by a firm's position in the supply chain, where managers of upstream firms tend to face similar strategic choices (Harrison, Hitt, Hoskisson, & Ireland, 1991), and managers of downstream firms face similar strategic choices. Hence, CEO directors' industry experiences in combination with similar experience of other board members (inside and outside) may favorably impact the quality of board processes.

Industry experience brings an array of cognitive assumptions about the future and knowledge concerning alternative courses of action and their likely consequences (Hambrick & Mason, 1984). An individual's cognitive base is a function of experiences including training and background (Cyert & March, 1963), and common cognitive frames may influence the capacity of boards to address strategic issues at the focal firm. For example, research on the impact of experience with specific types of strategic events demonstrates the association of prior acquisition experience with post acquisition performance of acquirers (Kroll, Walters, & Wright, 2008; McDonald, Westphal, & Graebner, 2008). The similarities between the CEO director's home firm and the appointing firm result in decreased time and effort to understand the appointing firm's strategic context allowing these directors to "economize on governance costs" (Carpenter & Westphal, 2001: 654). Thus, CEO directors whose experience is similar to the focal firm's primary industry may bring to the board valuable human capital enhancing the likelihood of positive firm outcomes.

Hypothesis 5a: The presence of multiple directors with expertise as a CEO is positively related to focal firm innovation.

Hypothesis 5b: The presence of multiple directors with expertise as a CEO is more positively related to focal firm innovation when the CEO directors are from the same primary industry as the focal firm.

RESEARCH DESIGN AND METHODS

We selected the pharmaceutical industry as the research framework to test our hypotheses. The pharmaceutical industry is one such industry particularly dependent on innovation for continued viability. Spending on R&D in the pharmaceutical industry exceeds that of any other industry. The International Federation of Pharmaceutical Manufacturers and Associations (IFPMA) reports that as of 2012 annual worldwide R&D spending in the pharmaceutical industry was \$135 billion. In addition, R&D for these firms comes at considerable cost in that only 1 compound in 5,000 discoveries actually comes to the market (“Pharmaceuticals,” 2015). Here the aggregate expertise of the board may be a critically important resource. Scientific expertise in the form of advanced scientific degrees may lead such firms to higher levels of innovation due to the unique human capital of this type of director. Similarly, the financial and business backgrounds of board members influence the business decisions to invest in R&D resulting in patent filings.

From the Corporate Library database we selected U.S. publicly traded corporations with SIC codes 2834, 2835, and 2836 representing the pharmaceutical and biotechnology industries. After removing companies with incomplete available data, our study included 168 companies. Our design incorporated both cross-sectional and longitudinal data, with directors’ characteristics and financials captured based on the proxy statements and annual reports filed for fiscal year 2013 and patent data from the U.S. Patent Office for 2013 through 2015. We purposefully did not use data from years before 2013 as companies may have been still feeling the effects of the Great Recession which in general negatively affected R&D spending (Jurgens-Kowal, 2010).

Firm innovation was measured by two well-accepted proxies, R&D expenses and patent filings (Becheikh, Landry, & Amara, 2006). From the U.S. Patent Office database we identified the number of patents filed by each of the 168 companies from January 1, 2013 through

December 31, 2015. In some cases, there was no information in the proxies regarding the number of patent filings, and we treated these as missing values. R&D spending was determined from the companies' annual reports covering the fiscal year ending in 2013 and was measured as R&D expense as a percentage of total expenses. Independent variables capturing the boards' human capital included the number of the directors as a percentage of the total number of directors whose biographies listed them as: a medical doctor, a PhD, a member with a university affiliation, a member having an affiliation with a venture capital or similar investment firm, a member having pharmaceutical, banking or accounting experience, or a CEO or CEO with pharmaceutical experience. Control variables included the size of the firm, measured by the log of assets, as larger firms would be more likely to have larger and more diverse boards. Whether the firm's founder was on the board was included as a control variable as founder managers have been found to contribute to the entrepreneurial performance of the firm (Fischer & Pollock, 2004; Nelson, 2003). Overall board tenure was included as a control because the longer a director is on a company's board, the more familiar he or she becomes with the resources and capabilities of the firm and is thus better able to assess the feasibility of R&D proposals presented by management (Kor & Sundaramurthy, 2009). The percentage of insiders on the board was included in the model as insiders are better able to assess the need and importance of R&D activity for their firms (Dalziel, Gentry, & Bowerman, 2011).

ANALYSIS AND RESULTS

We analyzed the data using hierarchical ordinary least squares regression (OLS). Table 1 shows the means, standard deviations, and bivariate correlations of the variables. Table 2 displays results for the regression on R&D expenses as a proportion of total expenses, and Table 3 displays results of the regression on number of patent filings. Regression on R&D expenses shows model significance in all five models, while the regression on the number of patents shows no significance for any of the models. Firm size is negative and statistically significant across all R&D models suggesting that larger firms spend proportionally less on R&D in comparison to total expenses. Firm size is significantly and positively related to innovation when measured using number of patents. Board tenure is positive and significant in only the control model of R&D. Board tenure is positively and significantly related to innovation as measured by the number of patents but shows no such significance in the R&D expenditure

model. In analyses not reported here, when missing patent data were given a value of zero, board tenure showed no significant relationship with innovation when measured using the number of patent filings. Founder is positive but marginally significant and in only two of the full R&D models. Hypothesis 1 predicted a positive relationship between outside directors with advanced degrees and firm innovation. We tested this hypothesis using the proportion of outside directors with medical degrees (MD) as well as using the proportion with advanced scientific degrees (PhD). MD, directors having medical degrees, is positive and significant across all four full models for R&D expenditures providing support for hypothesis 1. PhD is positive and marginally significant in two models for R&D expenditures providing partial support for hypothesis 1.

The relationship of directors from the banking and financial industry and innovation is negative and marginally significant failing to support hypotheses 2 and 3. In addition, venture capital background shows no significant relationship with innovation. Hypotheses 2, 3, and 4 are not supported.

Pharmaceutical experience on the board is positive and significant providing support for the notion that industry experience among directors provides positive benefits for the focal firm. CEO experience is not significant in any of the models testing that effect. Hypotheses 5a and 5b are not supported.

Table 1
Descriptive Statistics and Correlations

Variables	Mean	S.D.	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Patents	37.52	80.24														
2. R&D	0.42	0.26	-.06													
3. Firm size	19.58	2.02	.55* *	-.33**												
4. Insiders	.16	.07	-.18*	.03	-.24**											
5. Board tenure	7.16	4.78	.21*	.10	.11	.14										
6. Founder	.50	.50	.07	.18*	-.10	.07.14										
7. MD	.28	.22	-.03	.26**	-.12	-.15	-.01	.03								
8. PhD	.33	.26	.08	.19*	-.02	-.18*	.05	.14	.28**							
9. University	.27	.24	.33* *	.06	.32**	-.24**	.14	.02	.28**	.23**						
10. Bank	.38	.23	.12	-.12	.06	-.03	.02	-.02	.13	.16*	.27**					
11. Venture capital	.31	.26	.01	-.03	-.07	-.14	-.17*	.15	.12	.23*	.22**	.28**				
12. Pharma experience	.73	.64	.01	.16*	-.04	-.02	-.04	-.03	.03	-.02	.02	-.07	.10			
13. CEO experience	.42	.28	.07	-.07	.08	-.12	-.09	-.03	.13	.29**	.26**	.25*	.28**	.13		
14. CEO Pharmaceutical	.31	.24	-.01	.08	-.02	-.19*	-.03	.04	.19*	.36**	.13	.20**	.25**	.19*	.80**	
15. Active CEOs	.16	.09	.13	.01	-.08	.11	-.07	.17*	.09	.10	-.01	.10	.20*	.02	.27**	.20*

† < .10

* < .05

** < .01

*** < .001

Table 2 Regression on R&D expenses/Total expenses					
Variable	Control	Full model			
	model	PharmaExp	CEO	CEO Pharma	Active CEO
Firm size	-.37***	-.36***	-.37***	-.37***	-.37***
Board tenure	.15*	.10	.09	.11	.11
Founder	.13†	.13†	.11†	.12	.12
Insiders	-.15†	-.08	-.08	-.08	-.08
MD		.15*	.16*	.16*	.16*
PhD		.13†	.14†	.12	.13
University		.12	.14	.13	.13
Bank		-.13†	-.14†	-.15†	-.15
Venture capital		-.13	-.09	-.11	-.11
Pharmaceutical Experience		.15*			
CEO Experience			-.07		
CEO Pharmaceutical				.02	
Active CEO Directors					-.02
Model fit statistics					
N	168	168	168	168	168
Adjusted R ²	.14	.22	.20	.20	.20
R ²	.16	.27	.25	.25	.25
Change in R ²		.11	.08	.09	.09
change in F	7.98***	3.8**	3.09**	2.95**	2.95**
df	4	6	6	6	6

† < .10

* < .05

** < .01

*** < .001

Overall, the data analysis and hypothesis testing yield the following general conclusions. With the exception of the tests of hypothesis 1, the regression of these board human capital variables on our measures of innovation shows little support for any of our hypothesized relationships regarding board human capital and firm innovation. Firm size is related to innovation but is negatively related to R&D expenditures as a proportion of total expenses and positively related to number of patent filings. Advanced degrees are marginally related to innovation when measuring innovation as R&D expenditures as a proportion of total expenses. Directors who are also medical doctors are associated with innovation measured as R&D spending but not with number of patent filings. Venture capital experience shows no relationship with innovation when measuring innovation using either method. Pharmaceutical experience among outside directors appears an important influence on firm innovation measured as R&D expenditures, although CEO experience whether in the past, within the pharmaceutical industry, or as a currently active CEO shows no relationship with innovation.

Table 3 Regression on number of Patents					
Variable	Control	Full model			
	model	PharmaExp	CEO	CEO Pharma	Active CEO
Firm size	.53***	.50***	.53***	.50***	.50***
Board tenure	.18*	.16*	.15*	.16*	.15*
Founder	.11	.10	.09	.10	.11
Insiders	-.09	-.05	-.05	-.06	-.04
MD		.01	.02	.01	.01
PhD		.04	.05	.05	.04
University		.15†	.18*	.15†	.16†
Bank		.01	.02	.01	.01
Venture capital		-.05	.02	.01	0
Pharmaceutical Experience		.04			
CEO Experience			-.13		
CEO Pharmaceutical				-.07	
Active CEO Directors					-.08
Model fit statistics					
N	132	132	132	132	132
Adjusted R ²	.33	.33	.34	.33	.33
Change in R ²		.03	.04	0.03	0
change in F	17.18	.84	1.25	.94	1.01
df	4	6	6	6	6

† < .10
 * < .05
 ** < .01
 *** < .001

DISCUSSION

Our research question sought to determine a relationship between certain types of human capital on corporate boards of directors on a firm's tendency to innovate. Our findings confirm that directors with an MD or PhD degree may influence innovation and result in a higher level of R&D within pharmaceutical companies, thus providing some support for Hypothesis 1. Physicians and researchers with specific expertise in or experience with certain diseases or disorders may be recruited to be board members by pharmaceutical companies looking to develop cures and treatments for such maladies. Those directors bring their human capital to the board to help direct the research needed to achieve the company's objectives. On the other hand, a director with a particular agenda aimed at finding a cure for, say cancer,

may be able to influence the focal firm to invest funds toward that goal. In both situations, the expertise of the director is relevant to the innovative efforts of the firm.

Only in one model was a relationship found between university human capital and innovation as measured by number of patent filings. This result partially supports previous research suggesting that firms which cluster around university centers engage in more innovation evidenced by collaborative R&D and collective projects (Vicedo & Vicedo, 2011). Universities can provide a forum for disciplinary reproduction and institutionalization of scientific innovation (Braun, 2011). As a result universities create a community of learning in which professors and industry managers co-opt each other's expertise through board appointments.

None of our hypotheses regarding the financial background of the directors and innovation was supported. Two explanations are viable for this result. First, prior research suggested that while venture capital firms may initially seek out innovative firms as potential investments, once shares of stock are purchased, the relationship between innovation and the presence of venture capital becomes insignificant (Engel & Keilbach, 2007). A more compelling reason was suggested by Dalziel et al, (2011), who posited that outside directors with financial experience are more likely to take an active role in monitoring the R&D budgets of the focal firm. As a result, they might determine that certain activities are not in the best interests of their long-term investments in the firm and thus actually curtail R&D undertakings.

Two of our control variables proved to be significant and further investigation is warranted. Clearly, the results indicate that size matters. Smaller firms are more likely to expend a larger portion of their operating expenses on R&D while larger companies still generate more patent applications. These findings appear reasonable. Smaller firms are more likely to be newer firms still in the investigation stages of their scientific research and thus will spend much more in R&D as a percentage of overall costs than larger firms. Conversely, larger, more established firms conduct incremental research resulting in more patent applications that are developed from existing discoveries. More interesting is the finding that board tenure was significant and positive in both control models as well as in all models where the number of patents was the dependent variable. This suggests that the longer a board operates together as a unit, the more innovation leads to productive findings. Thus, it may be that while individual directors' expertise is not as relevant to innovation, taken in the aggregate, board human capital does contribute to performance on a unit level (Nyberg, Moliterno, Hale & Lepak, 2014; Ployhart, Nyberg, Reilly & Maltarich, 2014).

Our study is not without limitations. As with any single industry, cross-sectional study, results may not be completely generalizable and are subject to interpretation based on the economic conditions of the time. Nevertheless, the findings inform our understanding of the interplay between the board of directors and management in making decisions regarding firm innovation. Since outside directors' human capital does not seem as relevant as initially hypothesized, it may be that insiders have more influence in the strategic direction of the firm's R&D activities and resulting patents. Strategic choice theory advocates that the presence of insiders fosters strategic decision-making because of their superior knowledge about the organization and its environment, and their ability to make informed decisions on **strategic** policies affecting the organization (Baysinger & Hoskisson, 1990). They argue that inside directors possess more in-depth, firm specific knowledge than outside directors. Because inside directors facilitate the pursuit of more complex and risky strategies due to their specialized firm and industry knowledge, they contribute to the long-term performance of the firm. Our findings are also consistent with those of Kor (2006) who found that, contrary to her prediction, the ratio of outsiders on the board had no significant relationship with R&D investment.

CONCLUSION

This study examines the role of board human capital in fostering firm innovation. We focus our attention on firms in the pharmaceutical industry where innovation plays a uniquely critical role in firm success. We find that advanced scientific and medical degrees among outside directors are strong drivers of R&D spending and the number of patent filings. Firm size and board tenure are also strong predictors of innovation with firm size showing a negative relationship with R&D spending and a positive relationship with patent filings, while board tenure shows a positive relationship with patent filings. The lack of outside director human capital impact suggests the existence of other more salient drivers of innovation such as insider characteristics or managerial skills. This is consistent with previous scholarship suggesting that insiders may expend more effort implementing innovation and thus be more committed to investments in innovation R&D (Carpenter & Westphal, 2001).

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EXPLORING THE EFFECT OF LEADER MEMBER EXCHANGE (LMX) LEVEL ON EMPLOYEES PSYCHOLOGICAL CONTRACT PERCEPTIONS by Prof. Dr.

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Abstract: Leader member exchange (LMX) theory emphasizes that leaders establish different associations with each one of their followers through a system of exchanges and a psychological contract is an employee's beliefs regarding the mutual obligations between the employee and an employer. Within this study the impact of subordinates leader member exchange level on perceived psychological contract violation has been identified at first and it has been found that subordinates leader member exchange level negatively effect on perceived psychological contract violation Also it is seen when the demographic variables are taken into account that there are significant relations between education level, type of employment and age categories.

Keywords: Leader Member Exchange Theory, Psychological Contracts, Percieved Psychological Contract Violation

Introduction

There is an inclusive and ever increasing variety of theories to enlighten the idea and practice of leadership. Trait theories have given rise to leadership research in the early 1900s (Walter and Scheibe, 2013) argue that effective leaders share a number of common personality characteristics or traits. In response to the early criticisms of the trait approach, leadership recognized as a set of behaviors. The behavioral theory evaluated what successful leaders did and acknowledged comprehensive patterns that specified different leadership styles. While trait and behavioral theories had been significantly missing the environment as a component of leadership, the contingency theory had arrived with an idea that no single psychological profile or set of stable traits links to leadership. As closely related with contingency theory, leader member exchange (LMX) theory emphasizes that leaders establish different associations with each one of their followers through a system of exchanges (Avolio, Walumbwa & Weber, 2009). LMX to hypothesize that the subordinate roles, and, therefore, the quality of the leader-member exchanges, is divided into two basic categories: the in-group and the out-group. On the other side, Psychological contracts are beliefs that individuals hold regarding terms and conditions of the reciprocal exchange agreement between themselves and

their employer. When an individual perceives that contributions he or she makes obligate the organization to reciprocity (or vice versa), a psychological contract emerges (Rousseau, 1989). Within this study the impact of subordinates LMX level on perceived psychological contract has been identified with the relevant hypothesis and unexplored relation between LMX and psychological contract has been enlightened along with the empirical outcomes.

Theory and Hypotheses

Overview of Leadership Theories

The phenomenon of leadership embraces an individual's capability to impact others to help achieve organizational goals. Kouzes and Posner (2007) presented an extensive leadership definition apart from leader's traits, behaviors, circumstances even followers: "Leadership can happen anywhere, at any time. It can happen in a huge business or a small one. It can happen in the public, private or social sector. It can happen in any function (p. 8). Therefore it has been an ongoing discussion over years and since its inception, the scope of leadership has been idealized, highlighting the beneficial effects of leaders on followers and organizations (Naseer, Raja, Syed, Donia and Darr, 2016). Looking back over the past 100 years, we cannot imagine a more opportune time for the field of leadership studies (Avolio, et. al, 2009). There is an inclusive and ever increasing variety of theories to enlighten the idea and practice of leadership. Trait theories have given rise to modern leadership research in the early 1900s, (Walter and Scheibe, 2013) argue that effective leaders share a number of common personality characteristics or traits.

Then a second approach had arrived to leadership studies and considered as behavioral perspective. One of the major empirical contributions from the behavioral school was the identification of two broad classes of leader behaviors task-oriented and person-oriented behaviors - which were identified by repeated factor analyses conducted by the Ohio State group, interviews by the Michigan group (House and Aditya, 1997) and these dimensions of leader behavior are positively linked to many valued organizational outcomes including subordinate performance, group and organizational performance, subordinate job attitudes, and turnover (DeChurch, Hiller, Murase, Doty & Salas, 2010).

Third major approach was called contingency approach which attempts to match a particular leadership style or type to specific external circumstances. The general idea is that one type of leadership will be effective in one situation, but a different type of leadership will be effective in another situation (Sims Jr., Faraj & Yun, 2009). As a same era study, Leader-

Member Exchange (LMX) approach to leadership, grounded in role theory, is intuitively appealing and has a suggestive body of empirical support (Dienesch and Liden, 1986).

Leader-Member Exchange (LMX) Theory

Graen and his colleagues have developed and researched a new approach to the study of leadership in organizations and was originally named the Vertical Dyad Linkage (VDL) theory but more recently studied and known as Leader-Member Exchange Theory theoretically based on the concept of a "developed" or "negotiated" role (Dienesch and Liden, 1986). Graen (1976) stated that "Organizational members accomplish their works through roles" (p. 1201) thus the approach based on the role theory essentially.

The main focus in LMX theory is that leaders improve different exchange relationships with their followers, whereby the quality of the relationship modifies the impact on important leader and member outcomes (Avolio et al., 2009). In addition to this, Dienesch and Liden (1986) mentioned "it is based on the concept that role-development will inherently result in differentiated role definitions and, therefore, in varied leader-member exchanges" (p. 621). The quality of the relationship is revealed by the degree of mutual expectation, support, admiration, and responsibility. The model as it stands describes how effective leadership relationships develop between dyadic "partners" in and between organizations (Graen and Uhl-Bien, 1995) additionally their dependents causing an "in group" and an "out group" within the organization. According to DeChurch et al. (2010) in-group members are highly trusted, motivated performers who the leader responds to with greater attention and consideration than he or she allocates to members of the out-group.

The degree of LMX quality is directly related to superiors' performance. As House and Aditya (1997) stated "if quality of LMX is high, as perceived by subordinates, and if the superior-subordinate perceptions are mutual, there is a strong likelihood that superiors will both like subordinates and rate their performance as high due to this liking, rather than due to the subordinates' actual performance" (p. 16). Out-group subordinates have a more transactional low-quality relationship. Importantly, the focus of LMX is on the effects of the quality of the relationship between the leader and follower on resulting organizational outcomes (Gerstner & Day, 1997). Just precisely how the leader chooses who falls into each category is unclear, but there is evidence that leaders tend to choose in-group members because they have demographic, attitude and personality characteristics that are similar to the leader's or higher level of competence than out-group members (Robbins and Judge, 2008).

Finally a cultural perspective has been presented based on Hofstede's studies which is mentioning in-group/out-group distinctions may also be more apparent in more collectivistic, high uncertainty, and power distant cultures (Hofstede, 1991).

Psychological Contract

Organizations are constantly changing, and their employees are expected to go along with and adapt quickly and successfully to the changes. A natural consequence of organizational changes is the transformation of the employment relationship (Nikolaou, Tomprou and Vakola, 2007) Contracts are a backbones in employment relationships, forming incentives and contributions basic to membership in an organization (Rousseau, 1989). In other words contracts are promises and assurances made in exchange for some compensation and are enforced in law. A psychological contract is an employee's beliefs regarding the mutual obligations between the employee and an employer (Lambert, Edwards and Cable, 2003). The main idea is that when there is fit between psychological contract anticipated and psychological contract realized, individuals will experience positive outcomes, and when there is misfit, they will experience negative outcomes, which can nevertheless be moderated by job crafting (Dizdar, 2009).

Argyris (1960) first used the term "psychological work contract" to describe "an inherent understanding between employees and their foreman that arose as a result of a specific management style and discussed that the relationship could improve in a way that employees would exchange higher efficiency" (p. 86). The type of relationship that develops between employees and organizations is fundamental to organizational success and survival as well as employee well-being. This relationship also forms the foundation of many streams of organizational behavior research, including research into the psychological contract. It should be noted that the employee and organization held solid beliefs of each other and it was the expectancy of fulfilling those anticipations that driven both parties to remain in that relationship. In addition to this some expectations are widely shared, others are more individualized and the specificity of expectations may range from highly specific to very general (Coyle-Shapiro and Parzefall, 2008); which leads to our main focus on this research that how subordinates leader member exchange level effect on perceived psychological contract.

On the other hand, the psychological contract theory literature suggests that violations are inevitable within contractual relationships therefore a violation occurs when one party in a

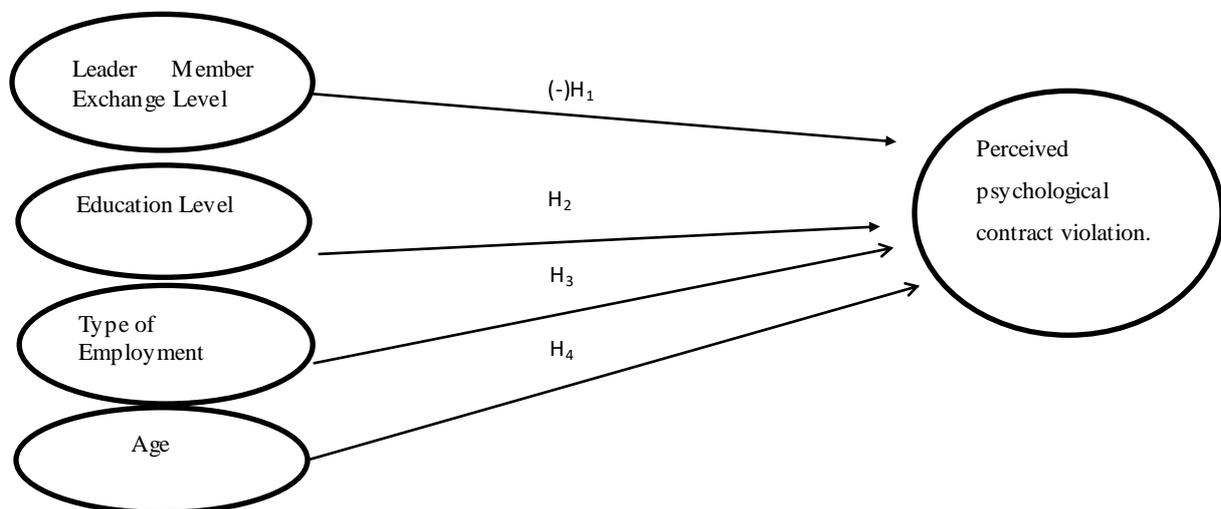
relationship perceives another to have failed to fulfil promised obligations (Malhotra, Sahadev and Purani, 2017). At this point employees will begin to disregard the inducement with less or no reaction. Additionally Peng, Wong and Song (2016) highlighted that psychological contract violation is comprised of negative emotions of anger and frustration, it will naturally activate employee reaction in order to release the induced uncomfortable experiences from such strong negative emotion (p. 817). In addition to this, according to O’Neill and Adya (2007) “organizations looking to capitalize on the knowledge resources of their employees must understand that employees are likely to have very different PC perceptions at various stages of employment” (p. 413).

Hypothesis 1. Subordinates leader member exchange level negatively effect on perceived psychological contract violation.

Hypothesis 2. Perceived psychological contract violation differs in terms of education level

Hypothesis 3. Perceived psychological contract violation differs in terms of type of employment.

Hypothesis 4. Perceived psychological contract violation differs in terms of age.



Research Model

Methods

Through personal contacts, a questionnaire distributed at Erzurum Technical University’s academic and administrative staff members in order to collect data. There are

276 academic and administrative staff members and the survey system web site (<http://www.surveysystem.com/>) was used to determine the sample size which was given 161. We have distributed 175 questionnaires and 163 filled properly and collected back. The subordinate's level of leader member exchange has been asset with LMX-7 scale which was developed by Graen and Uhl-Bien (1995). Perceived psychological contract violation (PPCV) scale was used to collect data which developed by Robinson and Rousseau (1994). The 9-item scale is planned to measure the perceptions of those surveyed that their employers have fulfilled their obligations to them. For questions that assess whether training and development, wages, promotion, nature of work, job security, feedback, change management, self-fulfillment opportunities, employees' expertise and co-work qualities are as promised. The scoring system required by the structure of the psychological contract violation scale differs from the scoring system of leader-member exchange survey. The scores of those who responded to the psychological contract violation questionnaire were reversed and inversely scored. Eventually, the obtained Cronbach's Alpha values of LMX scale was 0,855 and PPCV scale was 0,886.

Findings

Based on the questionnaire; 68.5 % of the participants are men and 31.5 % of them were women. In addition, 32.7% of the participants were single and 67.3% were married. 30.9 % of the participants are between the ages of 18-29, 56.8 % are between the ages of 30-45 and 12.3 % are over 45 years old. Also 6.8 % of the participants work for less than 1 year, 59.9 % work for 1-4 years and 33.3 % work for more than 4 years. According to the Confirmatory Factor Analysis results, all the variables included in the study indicated respectable agreement with the confirmatory factor analysis. However, 3rd question on LMX Survey and 3rd and 9th questions on PPCV were excluded due to reduced compliance on confirmatory factor analysis. When these questions were excluded, the variables became more acceptable with the reference values. Thus, LMX was measured by 6 items and PPCV by 7 items. Relevant compliance indices after the modifications are given in Table 1 shown as below.

Table 1: Goodness of Fit Index Obtained from Confirmatory Factor Analysis

Variable	Values							
	χ^2	(sd)	χ^2/sd	CFI	NFI	NNFI	AGFI	RMSEA

LMX	9	20,88	0,431	0,98	0,97	0,97	0,90	0,071
PC	14	27,14	0,51	0,99	0,97	0,98	0,91	0,076

The main statistical values and correlation coefficients for the variables included in the study are summarized in Table 2:

Table 2: Descriptive Statistics and Correlation Factors Related to Variables

Variables	Mean	Standard deviation	1	2
1-LMX	3,64	0,80	1	
2-PC	2,68	0,85	-,628**	1

** Correlation is significant at the level of 0.01.

* Correlation is significant at 0.05 level.

When Table 2 is examined, it is seen that there is a strong and significant negative relationship between LMX (leader-member exchange) and PPCV (perceived psychological contract violation).

The hypothesis results on direct effects according to findings are summarized in Table 3:

Table 3: Hypothesis Results on Direct Effects

Dependent Variable	Independent Variable		
	LMX		
PPCV	Beta	t	p
		-,628	-10,220
R²	,395		
D.R²	,391		
F	10,455		

According to the results of the regression analysis, in which the perceived psychological contract violation is regarded as a dependent variable and the leader-member exchange is considered as the independent variable, about 39% of the total variance of psychological contract violations ($R^2 = 391$) describes the leader-member interaction. It is observed that the level of subordinate's leader-member exchange level negatively and significantly influences the individual's violation of psychological contract.

The data and F values obtained from Table 3 indicates that the model has explanatory power. According to the correlation analysis and the regression analysis implemented H1, "Subordinates leader member exchange level negatively effect on perceived psychological contract violation." has been accepted.

Table 4. Comparison of Perceived Psychological Contract Violation with Participants' Education Levels.

	Education Level	Education Level Difference	Mean Difference	Standard Deviation	F	P(sig.)
Perceived Psychological Contract Violation	Undergraduate	Secondary Education High School Graduate	0,409 0,188 -0,402*	.277 .339 .135	2,34	,05

*: p<0,05

Based on perceived psychological contract violations according to the level of participants' education; only significant differences were found between the undergraduate and graduate degrees. According to the results shown in Table 4, the psychological contract violation was significantly higher on undergraduate groups than the graduate groups. For this reason hypothesis 2 is accepted.

Table 5. Comparison of Perceived Psychological Contract Violation with Participants' Type of Employment.

	Type of Employment	Type of Employment Difference	Mean Difference	Std. Deviation	F	P(sig.)
Perceived Psychological Contract Violation	Academics	Administrative Contractual	0,554** 0,305	.132 .355	2,55	,00

*: p<0,05

Based on perceived psychological contract violations according to the level of participants' type of employment; only significant differences were found between the academics and administrative employees. According to the results shown in Table 5, the

psychological contract violation was significantly lower on academics than the administrative employees. For this reason hypothesis 3 is accepted.

Table 6. Comparison of Perceived Psychological Contract Violation with Participants' Ages.

	Age	Age Difference	Mean Difference	Std. Deviation	F	P(sig.)
Perceived Psychological Contract Violation	45 +	Between 30-45	-0,681**	.149	2,83	,01
		Between 18-29	0,469**	.165		

Based on perceived psychological contract violations according to the level of participants' ages; There are significant differences were found between the age groups. According to the results shown in Table 6, the psychological contract violation on over 45 years old group was significantly higher than the other age groups. For this reason hypothesis 4 is accepted.

Table 7: Hypothesis Test Results

Model	Hypothesis				Results
LMX → PC	H ₁				Accepted
EDU → PC	H ₂				Accepted
DEP → PC	H ₃				Accepted
AGE → PC	H ₄				Accepted

According to Table 7 all hypotheses were accepted.

Conclusion

Within this study the impact of subordinates leader member exchange level on perceived psychological contract violation has been identified at first and it has been found that subordinates leader member exchange level negatively effect on perceived psychological contract violation. In other words, a positive affect has been observed between subordinates LMX level and a positive relationship is observed between the levels of employee interaction with the leader and psychological contract perceptions. It should be mentioned that, the most successful organizations are able to attract and maintain top capacity by entering into psychological contracts with their employees that motivate them to produce and share

knowledge and experience in return for developing their professional skills (O'Neill and Adya, 2007). Subordinates personal confidence on their supervisors and their perceptions on being an in-group member, basically strengthens the psychological ties with their organizations. It is seen when the demographic variables are taken into account that there are significant relations between education level, type of employment and age categories. Moreover, these demographic data supports the first the conclusion of first hypothesis. In fact, the results are found about type employment on hypothesis four was perceived psychological contract violation on the academic staff is low and it was high on the administrative staff, that is, psychological contract commitment is high on academic staff members. One another study on academic staff member's organizational commitment has been completed by Doğan and Demirel (2000) which was supported the consequences of our study; organizational commitment has a positive impact on perceived psychological contracts. It should be mentioned that within this study, we only took subordinates opinions into consideration and the management level of the university did not involve in the assessment. On the other hand, even though there are many studies in regards to LMX theory and psychological contracts in relation with some other topics, there is not much study has been completed on LMX and psychological contracts together, yet. These two are the main limitations of the study.

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PREDICTIVE MAINTENANCE METHODS AND APPLICATIONS IN AUTOMOTIVE INDUSTRY by **Prof. Dr. Zafer DULGER**, Kocaeli University, Engineering Faculty, Kocaeli, Turkey, zdulger@kocaeli.edu.tr and **Prof.Dr.Gokan ACAR**, Kocaeli University, Graduate School of Natural and Applied Sciences, Kocaeli, Turkey.

Abstract: Predictive maintenance techniques help determine the appropriate timing of service operations, which warns the operators when the maintenance should be performed as opposed to guessing the timing of maintenance or using pre-determined schedule. This approach offers cost savings over routine or time-based maintenance techniques because the tasks are performed only when required. Predictive maintenance techniques utilize non-destructive testing methods such as infrared, acoustic, vibration, oil analysis, and other equipment specific tests in order to evaluate the conditions of the machine components.

In this study, predictive maintenance applications in an automotive factory located in Turkey are introduced. Predictive maintenance applications in lift and shuttle systems, chain conveyor mechanisms, spot welding guns, rain test pumps and roll test motors are presented. By using predictive maintenance techniques, higher efficiencies, cost reduction and decrease in failure-induced breakdowns are achieved. Downtimes as high as 5 hours per month could be reduced to zero. These benefits are quantified in terms of car productions saved per month.

Keywords: Predictive Maintenance, Cost Saving, Increased Equipment Lifetime.

Introduction

Maintenance costs constitute a sizeable part of the total operating costs of manufacturing plants. Studies reveal that 33% of maintenance costs could be saved if unnecessary maintenance activities are avoided. Avoidable maintenance operations also adversely affect the product quality and profitability of the production, i.e. poor maintenance management impacts a company's ability to compete in the market. Maintenance activities can be divided into 3 categories, (Szwedo, 2012);

- Preventive Maintenance: Scheduled or planned maintenance actions aimed at the prevention of breakdowns and failures to increase life of the equipment and make it run more efficiently, such as, oil changes, greasing, changing filters, and belt tightening.

- Predictive Maintenance: Techniques to determine the condition of in-service equipment in order to predict when the maintenance should be performed to minimize disruption of normal system operations, such as vibration analysis, thermal camera analysis, oil analysis.

- Corrective Repairs: Repairs aiming at bringing the equipment back to its original conditions.

Predictive maintenance methods detect the onset of a failing mechanism, thus allowing the corrective action to be taken before significant deterioration occurs in the operation or structure of the machine components.

This study introduces predictive maintenance applications in an automotive factory located in Turkey. Operations on transfer systems, spot welding guns, rain test pumps and roll test motors are presented. By using these techniques, higher efficiencies, cost reductions and decrease in failure-induced downtimes are achieved. The quantitative data on prevented loss of production associated with each type of method used are revealed.

Predictive Maintenance Techniques

Predictive maintenance aims at predicting failure of a machine or its parts. In this technique, just-in-time maintenance procedures are defined and used instead of previously scheduled operations. A production plant has to reduce its costs in order to maintain its competitive edge in the market. Predictive maintenance serves this purpose by benefiting from advancements in sensor technologies. There are a number of predictive maintenance methods, (https://www1.eere.energy.gov/femp/pdfs/OM_6.pdf). Among these are vibration analysis, thermal camera analysis, oil analysis, and ultrasonic analysis:

-Vibration Analysis: If a mechanical device operates beyond its limits, abnormal levels of vibration is generated. Machines have many rotating elements and any deviation from normal operating conditions results in emission of vibrations of specific amplitude and frequency. Sensors capture these vibrations to identify and quantify the source and magnitude of the malfunctioning component.

-Thermal Analysis: Any object at temperatures greater than absolute zero emits infrared radiation. Infrared thermography captures images created by variations in infrared radiation given off by objects. Detectors sensitive to infrared radiation generates a two-dimensional visual image. This image displays an object based on its temperature.

-Oil Analysis: As machines operate, wear produces particles that are captured by lubricating oil. By monitoring these particles in the lubricant, wear in machines can be assessed and estimated.

-Ultrasonic Analysis: Moving machine parts emit sound patterns in the ultrasonic frequency spectrum. These ultrasonic sounds are captured by detectors. Changes in these ultrasonic wave emissions reflect the condition of the equipment allowing identification of the failing machine components.

Applications in Automotive Industry

An automotive production factory located in İzmit, Turkey, employs several methods for predictive maintenance operations (Acar, 2014). The essence of the operations is to plan maintenance activities on critical equipments in order to minimize the interruptions and stops in production processes. The cases studied are lift and shuttle systems, roller conveyor mechanisms, spot welding guns, rain test pumps and roll test motors.

Any maintenance requirements on “lift and shuttle” systems mean stoppage on the main production line and less output due to lack of stock. Figure 1 shows thermal camera image of the electric motors used in lift and shuttle mechanisms.

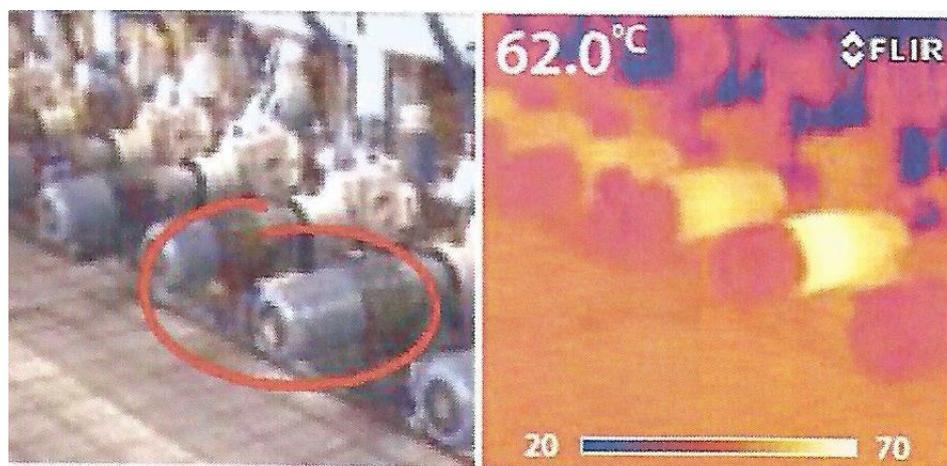


Figure 1. Thermal camera image of electric motors

Bright yellow area is indicative of a potential malfunction. Therefore, further vibration analysis on the motor and reduction system is performed as seen in Figure 2. Figure 2 indicates that a tooth in gears is broken which is reflected by repetitive variations in acceleration as the gears rotate. Therefore, at an earliest convenience, the broken gear should be replaced before a more costly downtime occurs.

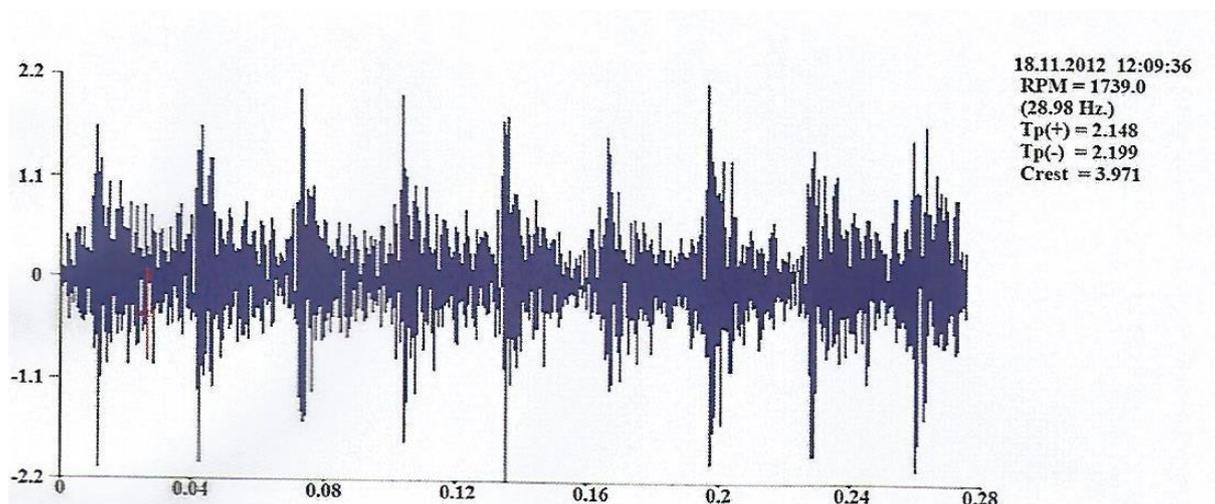


Figure 2. Vibration analysis of reductor (acceleration vs time)

In addition to thermal camera control in chain conveyor mechanisms, axial speed control of rollers is also employed. Figure 3 shows a chain conveyor. As seen in Figure 4, in 2012, total delays in production due to conveyor failures are 298 minutes, which corresponds to a loss of production of 150 cars. Figure 5 shows the causes of the conveyor failures; 85% of the failures are due to speed variations, the rest due to mechanical resistance, driver overheating and worn-out walk way. This analysis shows that speed of the conveyor belt is obviously the major cause of failure. Therefore, speeds of two rollers are measured: By using a tachometer, it is determined that speed of roller no 201 is 7.3 meters per minute, while those of rollers 202 and 203 are 6.02 mpm. Main cause of the speed variations is that wear on rollers are different. Since speed of 201 is greater than that of 202, roller 201 is about to fail. After changing roller 201, speed becomes 5.96 mpm, almost same as others. As the speed differences are minimized, the driver resistance problem is also minimized and consequently, 85% improvement in conveyor failures is achieved.



Figure 3. Chain conveyors

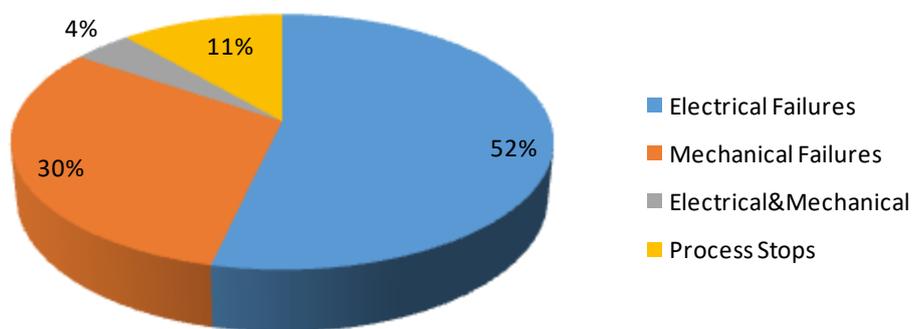


Figure 4. Conveyor Failures

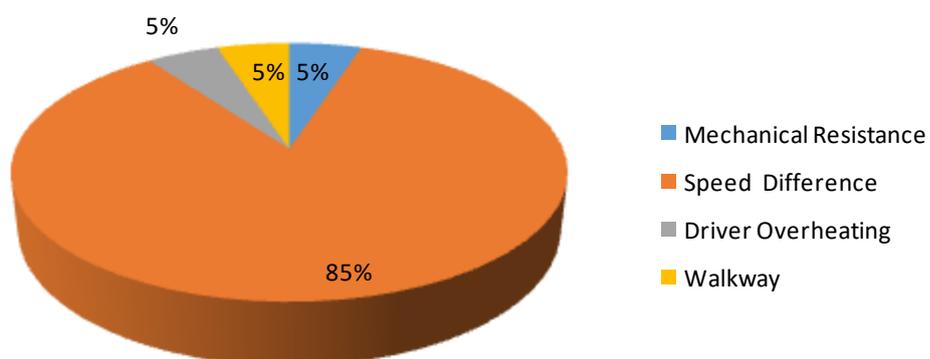


Figure 5. Conveyor Failure Reasons

95% of metal joining processes are performed by spot welding. Most probable problem with spot welding guns is shunt effect. In spot welding, welding is done one after

another. When welding a spot, the previously welded adjacent spot affects the quality of the current weld due to a shunt current that flows through the existing spot welds. This effect is called shunt effect and is a major source of quality deterioration. In order to prevent shunt problems, each gun must be monitored by using thermal camera analysis. If temperature of a gun falls beyond the acceptable range, prompt action should be taken. Table 1 shows temperature values for some of the welding guns. Temperatures for 3 guns in Table 1 are in some occasions above the normal values, which is indicative of onset of a failure. If the necessary action is not taken, the guns will fail and production will have to be stopped. Figure 6-a shows normal temperatures for gun no 7104, Figure 6-b shows increased temperatures and beginning of a failure. This gun performs 7000 spot weldings a day. If predictive maintenance is not applied on this gun, failure would be inevitable. When predictive maintenance is utilized, total stoppage times are reduced drastically as shown in Figure 7. From an average stoppage time of 200 minutes per month, 36 minutes are achieved after predictive maintenance, a reduction of 82%. This improvement corresponds to a recovered production of 72 cars.

30 kW water circulation pumps used in rain test (Figure 8) are monitored via vibration analysis. Vibrations in 2 points in the motor and 1 point in the pump are monitored. 3 measurements are taken in each point: vertical and horizontal velocities and acceleration. In Table 2, measurements in pump no 3 are shown. In no 2 and no 3 measurement points, current accelerations are 1347% and 931% above the previous measurements. These values indicate that immediate action on ball bearings should be taken in order to prevent a costly failure.

Table 1. Temperature values for some of the welding guns (NOT: Normal Operating Temperature)

DAILY TEMPERATURE MEASUREMENTS (°C)												
Gun #	NOT	04.12	06.12	07.12	09.12	10.12	11.12	12.12	13.12	14.12	15.12	17.12
TAB38009	40	38,3	38,4	38,6	37,8	38,1	38,3	38,1	37,8	38,6	38,3	37,8
TAB38009	30	27,6	27,7	28,2	28,4	29,0	28,6	28,7	29,3	28,1	28,2	28,4
TAB38009	50	49,1	48,4	48,6	48,9	58,1	58,3	59	48,6	48,4	48,6	47,3
TAB38009	52	51,6	51,3	50,7	50,8	49,7	51,3	52	50,7	50,9	51,4	49,7
TAB38009	35	33,6	33,9	33,4	35,8	35,9	36	36,5	33,3	34	33,8	34,2
TAB38009	38	34,2	32,5	34,9	35,7	36,5	37,2	37,8	37,4	37,8	39,5	42

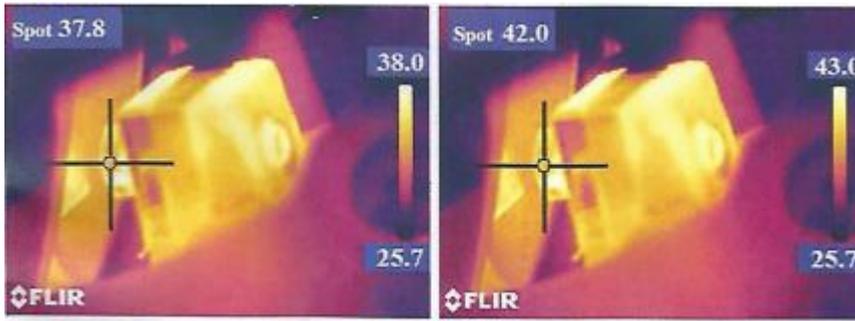


Figure 6 a) Normal b) high welding gun temperatures

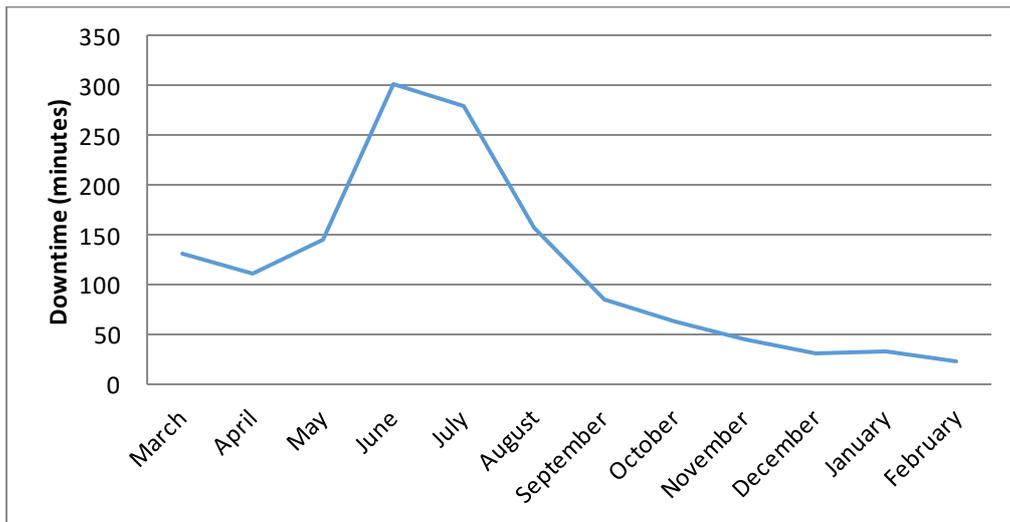


Figure 7. Downtimes before and after thermal camera analysis



Figure 8. Pumps used in rain tests

Table 2. Water test pump number 3 test results

WATER TEST PUMP #3					
Measurement point	Measurement date	Last measurement	Previous measurement	Unit	% change
1 VER VEL	07/03/14	1,773	1,649	mm/s	7,51
1 HOR VEL	07/03/14	5,24	2,803	mm/s	86,9
1 HOR ACC	07/03/14	1,454	0,465	gE	213
2 VER VEL	07/03/14	2,009	3,32	mm/s	-39,5
2 HOR VEL	07/03/14	2,986	2,001	mm/s	49,2
2 HOR ACC	07/03/14	3,64	0,353	gE	931
3 VER VEL	07/03/14	2,927	0,761	mm/s	285
3 HOR VEL	07/03/14	5,449	0,862	mm/s	532
3 HOR ACC	07/03/14	12,775	0,883	gE	1347

Similarly, vibrations in driver motors in roll test are measured (Figure 9). Velocity and accelerations are recorded and monitored as shown in Table 3. High variations in acceleration from the previous measurements indicate the onset of upcoming failure. Ball bearings on this motor should be replaced at first stoppage.

As a result of these predictive maintenance applications on motor-pump systems, stoppage times reduce from 300 minutes per month to zero as shown in Figure 10. This corresponds to 150 cars produced.



Figure 9. Roll test line 3 front left motor

Table 3. Roll test line 3 front left motor test results

ROLL TEST LINE 3 FRONT LEFT MOTOR					
Measurement point	Measurement date	Last measurement	Previous measurement	Unit	% change
1 VER VEL	07/03/14	1,208	0,326	mm/s	270
1 HOR VEL	07/03/14	3,676	0,133	gE	2670
1 HOR ACC	07/03/14	1,386	0,493	mm/s	181
2 VER VEL	07/03/14	2,488	0,152	gE	1539

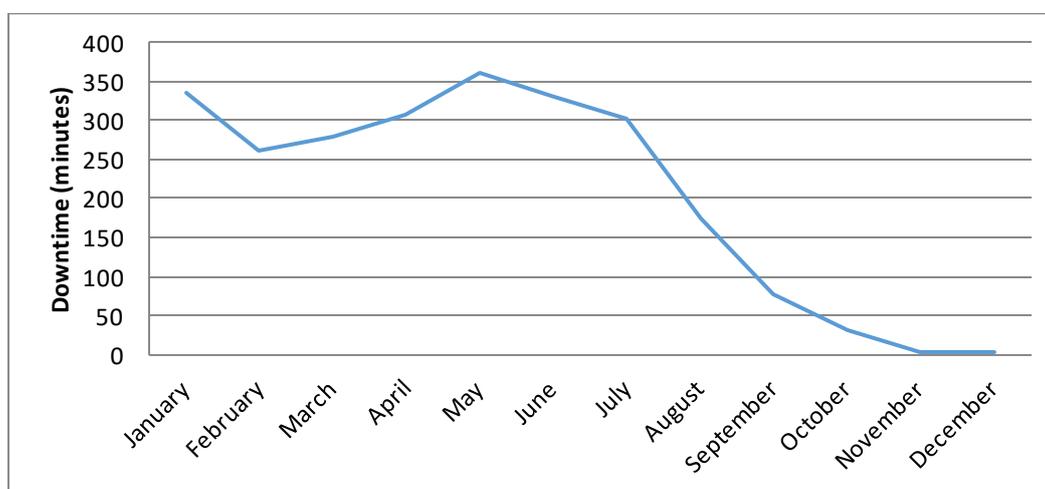


Figure 10. Downtimes before and after vibration analysis

Discussion

Companies have to reduce manufacturing costs and increase production in order to maintain their competitiveness in the market. Predictive maintenance could help achieve these goals and is actually a powerful business strategy. This study reveals that improvements could be obtained by utilizing predictive maintenance techniques. Introduced methods of predictive maintenance are: thermal camera imaging and vibration analysis. The method to be utilized depends on the equipments in the production stages in the factory. Applications in automotive factory under investigation shows that noteworthy savings in stoppage times in production could be achieved. Downtimes times as high as 5 hours per month could be reduced to zero, which corresponds to more production of cars. Up to 200 more cars per month could be produced in the factory under consideration.

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Business Ethics (BUSI 211) is a required course at the American University in Dubai (AUD) and comparable classes are required now in many other business schools. Although this has not always been the case as some experts point out that attempts to teach business ethics at the beginning of the 20th century was a bit hit and miss. Current attempts to teach the topic is now standard practice. (Abend 2013). Experts and scholars in the field continue to believe that a fundamental education of ethics and critical thinking are an indispensable part of a business school education. (Nastase and Corina 2013). AUD Business School, through its mission statement and syllabus learning outcomes express the intent that the teaching of ethics is essential to its mission statement and includes measure of ethical function as part of the measured learning outcomes for their programs. (AUD 2015). Furthermore, education accrediting bodies such as the Association to Advance Collegiate Schools of Business (AACSB) through their taskforce on Ethics Education identified the curriculum development of ethics “...to recognize and encourage development of ethics in disciplinary education and research.” In theory, business students need to complete the basic ethics course at AUD or any other institution to move onto upper level courses and ultimately graduation. But it is necessary in the approach to the subject matter and practice to view business ethics as more than a simple pre-requisite and obstacle to overcome and rather as method to develop critical thinking and practice skills for the professional world. Furthermore, a consideration of cultural components that are brought by students to class should be factored into the teaching matrix. The teaching of ethics, whether it is done through business or humanities, should be geared towards the development of soft skills and instilling a competitive edge in our students of today that will be employees of tomorrow. In essence, the development of an ethical skill set can be seen as survival skills to help keep a future employee or manager from being in a situation where they will lose their job or even worse, be sued or incarcerated for their unethical behavior. Teaching ethics in the business sense is a question of both logic and courage. To have successful graduates, learning institutions need to develop students that have critical thinking, strong logic skills and the courage to practice those skills in the workplace.

In a recent business law class at AUD, the students had a clear opportunity to learn and recognize potential ethical pitfalls and were installed with the tools necessary to navigate a decision making processes that could lead to the best possible solution for an ethical dilemma.

While using case study scenarios to develop the understanding of concepts of Human Resource Management (HRM), the students stumbled upon the cultural relativism issue that once brought to light, instilled the students with the ability to see the differences even if they fundamentally disagree with the premise. The scenario outline asked the students to assume the role of management/human resource teams and to deal with a lead government worker that was placing at risk children into care homes. The scenario also suggested that the worker appeared to be living above his means and that a cursory review of the placements showed a tendency towards putting the children into favored homes as opposed to qualified homes. The case study further indicated that no children under the review of the worker were endangered and the placement and care protocols were otherwise maintained; however there did exist at the department in question a certain level of acrimony among the other employees. The general suggestion of the case study was used to outline the principles of SHRM Ethical Leadership which calls for a leader to be “a role model for maintaining the highest standards of ethical conduct.” (SHRM.org 2014). The intent of this is to encourage human resource managers and by proxy organizational managers to exhibit leadership qualities through their actions that can be viewed as the highest of standards for ethical behavior. After a lengthy discussion on the probability of bribes or kickbacks as being the reason for the perceived higher standard of living and what methods could be used to determine if there was an actual conflict of interest were exhausted the true educational moment occurred. A hand from the back of the class went up and the student said, “Wait, I don’t understand the problem. If the kids are okay what is the issue with the worker receiving gifts from the placement homes?” There are a multitude of ethical lessons to consider but in the discussion that ensued, three can be considered. Firstly, any employee should be receiving a salary for their work. Eliciting, taking or expecting bribes on the side erodes confidence in the general system or organization. This erosion of trust can lead to poor work attitudes within the structure and public confidence issues from the outside. Secondly, as managers concerned about the integrity of the system, confidence in the organization and the continued function of the program, the decision to at a minimum investigate the claims in an open and fair measure is an obligation that cannot be neglected. Failure to do so can be consider a fundamental breach of the duties of loyalty and care, both of which are fundamental to both the law of agency and ethical leadership. Finally, many cultural considerations may determine whether the taking of bribes or kickbacks is an acceptable form of business as it is seen as being very wide spread. (Gill 2014). But even if a practitioner comes from a softer ethical school of thought on the issues of bribery, gifts and facilitation payments, the ability to consider these matters logically and measure if one’s own

position on the matter is in sync with organization's view as well as the perceived view of the community is a learned skill. From this lesson the student in class as well as the rest of the class can begin to separate their own views on situations to critically think about what a better or superior solution to a problem would be with regards to the ethical confines of the organization at which they are employed. That logical method as applied is to first identify the ethical dilemma, break down the principal elements in the situation as presented, factor in any and all alternative courses of action and how they may impact the organization. Then management can select the best or most ethical alternative course of action after considering all of the consequences.

Another area of concern is one of ethical empowerment. In the same ethics class, another scenario where a business entity conducts a surprise inspection of a supply chain partner's manufacturing plant yields the discovery of child labor and other human rights abuses. Upon case study review, students often point out that unethical behavior is a regular part of the business world and 'everybody' engages in the activity. What possibly could one person or company do to make a difference? A great example of proof that a successful company can have high ethical standards, demand ethical practices from partners and ensure ethical behavior throughout the supply chain process is demonstrated by IKEA. IKEA, as demonstrated in the Manufacturing and Logistics IT magazine is a demonstrated case study providing an excellent example of maintaining ethical standards and still being successful. The message to students becomes one of looking for examples of business that can be both ethical and successful from having the courage to police the corporate policies of both their own activities as well as their suppliers. This is a fundamental reality that graduating students need to be aware of with regards that the actions of their business partners have immediate impact upon their operations and reputation. As such, a strategic decision on when and where to draw ethical lines of conduct with partner groups is imperative for review.

Relative Ethics & Cultural Considerations

Ethics are relative. Doing the right thing or making the right decision is not always easy. Furthermore, teaching students to see ethical problems and think about them logically instead of out of simple instinct or on a basis of cultural norms is a substantial task. In the study and education of ethics, again with the goal of developing survival skills in the workplace, we seek out normative similarities to aid in working environments. Certain schools of ethical thought point out that bribes or gifts, as they are considered in the first in-

class case study mentioned above, are often facilitation devices instead of encouragements to break the rules. (Hamilton and Knouse 2001). In the discussion of the first fact scenario above it can be seen that an effort by a human resources officers to avoid not only unethical behavior but also the appearance of unethical behavior was necessitated. However, the severity of the behavior as well as its outcome seemed important for the students' consideration.

From a cultural standpoint, it is clear that teaching ethics to any classroom needs to account for cultural enculturation or rather the immersion from one's cultural that leads to the uniform belief that the primary self-culture's way of doing something is the only correct and natural way of completing the task or solving the problem. But one should consider the oft cited work of Moshe Rubinstein, *Patterns of Problem Solving*, where one is asked, in a hypothetical scenario, to consider who a person would save if one could only save themselves and one other person from drowning. The choices for that person is the mother, a child and the spouse. Western orientation suggests that the solution is generally the child is to be saved, but in Arab dominated classrooms, the frequency of saving the mother increases greatly. The explanation is due to the centering on the teachings from the Quran and Hadith where lessons about only having one mother to honor is considered very important. (Al-Hashimi, *The Ideal Muslimah*, IIPH 2005, p. 165 as quoted in *Islam's Women, Jewels of Islam*) Both the noble Quran and the Hadith further instruct Muslims to "cling to their mother's feet" as that is where they would find "paradise" and how the hardships the mother endured is the reason why Muslims should honor them with such reverence. (Noble Quran 46:15). This example of ethical thought governed by Islamic religious principal is not singular in its existence. Other examples present themselves in the media as well. Consider a recent letter to the National Herald Tribune editor by one Arslan Asif from Pakistan where it was pointed out that the running of business by a Muslim should be ran with "...a sense of responsibility and accountability in the minds of the believers." Mr. Asif's greater point is that a profitable business is "easily" obtained by adhering to strict religious influenced ethical constructs. Culturally and religiously this is comparable to Catholic social responsibility and the principals that are made about maintaining religious principals in all facets of life including business conduct as presented by Augustine and Aquinas generally and Pope Leo XIII's 1891 encyclical letter *Rerum Novarum*, section 20 specifically.

AUD's cultural make-up may suggest an excellent opportunity to see how these cultural enculturation issues can be identified and dealt with. AUD's institutional culture and

mission language recognize the cultural diversity of its student body, faculty and leadership. Additionally, AUD campus and instruction methods instills the traditions of western, specifically American styled education. AUD's 2015 statistics shows an undergraduate body of 2585 students with only 329 or 13% of them being UAE nationals. The remaining student body is made up of expats including Russians, Lebanese, Kazakhs and others. In the same ethics class mentioned above, the cross cultured class was presented the question from Rubinstein's work. The answers from the class seemed to reaffirm the hypothesis that Middle Eastern and subcontinent peoples look to the importance of the mother in the scenario and other students from the western and non-Middle Eastern areas indicated the idea that salvation of the child is paramount and without hesitation. This difference in view point can also be taken into consideration as a justification of taking or asking for facilitation bribes as a normal course of business. An Ernest and Young Fraud Survey suggested that "[O]ne-fifth of respondents felt it was not possible to conduct business in the Middle East without engaging in bribery or other forms of corruption". (Gill 2014). Teaching ethics in a venue such as AUD provides a unique and specialize forum for making sure ethical teaching is tempered to considerations of cultural significance. This is due to AUD and like institutions hyper-diverse student body being used as a forum to study not only the concerns of ethical situations but also the comparative solutions offered up by the varied members of the student body. This dynamic is also telling about the future of the global workplace as that work place will more likely resemble a heterogeneous entity of multiple viewpoints or "thought diversity" on ethical matters, rather than homogeneous closed society with no interaction with varied viewpoints. (Griswold 2013).

Professional Practice Post Graduation

It is important to note that many professional societies including the Society of Human Resource Management, the American Bar Association and the Charter Institute of Management Accountants to name just three, indicate that ethical considerations should include not only the deterrence of unethical behavior but also the avoidance of the appearance of unethical behavior. In Professor Archie Carroll's crafted work on ethics entitled: 7 Habits of Highly Moral Leaders, Professor Carroll calls for ethical leaders to "have a passion to do right". There are no clarifiers. It is not do right only if there is harm or damage being done. It is not do right if it will look like the right thing to do. It simply calls for ethical leaders to have a passion to do what is right. Corrective behavior and planning are perennial in producing successful graduates capable of doing "right". As such, preparing students to view

potential ethical conflicts and logically ascertain solid solutions to the problems based on thoroughly thought out analysis will lead to superior solutions in the workplace and ultimately a more ethical standard of practice in the business world. With regards to educational commitment to the teaching of ethics, practices such as logic based decision making, recognition of cultural-regional differences of evaluation and encouraging courage in corporate practice leads to the assurance of learning and the assessment of learning which are standard parts of business school missions, learning outcomes and strategies. Therefore, if in the modern world the preference is for the making of principled decisions above simple rules-based approaches is a focus that is necessary for the procurement of ethical standards in the workplace then continued success in these endeavors depends upon students refining their ethical skill building. As such intense instruction and practice of ethical skill building in its entirety is a necessary challenge worthy of business school educator's attention and not simply a passing thought or throwaway line in a syllabus.

Concluding Remarks

In considering programs, classes and curriculums for modern study in business schools, teaching business ethics is an essential. In addition to academic study, the need for programs to encourage students to trust in their training and make decisions based on what is ethical as opposed to the legal minimum is a guiding principle practiced at institutions such the American University in Dubai. A call for an expansion and implementation of this practice is underway in many other institutions and programs.

This article provides insight into effective teaching practice and the fostering of student skill acquisition in the hyper-diverse student body of the American University of Dubai. Ethical behaviors and judgements form a critical element of good business practice that are increasingly demanded of business internationally. Logic based ethical discernment and decision making are, however, acquired skills, and time and effort must be allocated to their development. Their post-graduation utilization also depends on further constructing and reinforcing the necessary personal attributes (including courage, self-confidence and good interpersonal communication skills).

Practical examples are supplied that illustrate the dynamic nature of the learning experience through the use of appropriate scenarios and effective laboratory practice. Students themselves come to recognize existing encultured values and the challenge of change and, while remaining sensitive to difference, develop the skill necessary to reach logical ethical

solutions for problems they will inevitably encounter in practice and the courage to implement those solutions. Equipping students with these skills is equipping them for their future and for a better future for the organizations that will employ them, and for the world of business and the broader community more generally.

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THE MEDIATING ROLE OF ORGANIZATIONAL CYNICISM ON THE EFFECTS OF ETHICAL CLIMATE AND ORGANIZATIONAL CONTROL MECHANISMS ON CYBERLOAFING by Seda Kayapali Yildirim, Igdir University, kayapaliseda@gmail.com and Assoc.Prof.Canan Nur Karabey, Ataturk University, ckarabey@atauni.edu.tr

Abstract: There are several variables that affect the concept of cyberloafing which could cause negative outcomes such as a decrease in organizational efficiency. Starting from this point, this study aims to examine organizational cynicism as a mediator on the effects of organizational ethical climate and control mechanisms on cyberloafing. A field study was designed and conducted on 217 employees in a credit rating agency operating in the banking sector in the city of Erzurum.

According to the results of the study, as the perception of organizational ethical climate increases, the minor and major cyberloafing of employees decrease. The increase of control mechanisms and organizational cynicism increases minor and major cyberloafing. While perceived ethical climate level affects cognitive cynicism negatively and significantly, no statistically significant effect of control mechanisms on cognitive and emotional cynicism was found. Additionally, it was found that organizational cynicism has a mediating role in the effects of employees' organizational ethical climate perception on cyberloafing behavior.

Keywords: Organizational Ethical Climate, Organizational Control Mechanism, Organizational Cynicism, Cyberloafing

* This study was derived from the doctoral dissertation published in Ataturk University, Institute of Social Sciences.

Introduction

Having different cultural values, norms, beliefs and attitudes, different physical and spiritual features make common life difficult. This is where ethical and moral rules make people with different characteristics, goals, and approaches similar. Ethics is the principles that shape and coordinate humans to live together.

Organizations function in a social environment and the most important element of organizations is humans. Individuals with different characteristics have to live, work, produce, and focus on the common goal together during certain hours of the day. Turning individual differences into similarities and creating a compatible work environment is important to succeed. This is why organizations determine certain ethical principles and expect organization's members to act according to these ethical principles. This is called organizational ethical climate in literature, and it is an important factor to obtain organizational order, peace, and success. Every organization's own ethical principles give

information on the ethical climate of the organization. Individuals can compare their own ethical principles to the organization's predetermined ethical principles, and see how compatible they would be with the organization. The compatibility of the employee and the organization will allow employee and the organization to act together in terms of goals and purposes, and both individual and organizational efficiency will increase. Therefore, organizational ethical climate is an important factor in the efficiency and productivity of the organization.

Organizations are regarded successful in accordance with their activities in alignment with their foundational purposes and how closer they get to their goals. Therefore, organizations need to direct all resources they have toward their goals. Most of the time, organizations control how their resources are being used by comparing the planned and the performed activity results. The necessary activities for reaching goals are controlled before, during and after they are executed. The control of activities in each step, that is called simultaneous control, is a frequently used control method. Organizations perform the control function to be efficient while reaching their foundational and existential purposes, and create many control mechanisms. These control mechanisms created need to have a few fundamental features. Firstly, the control mechanism that is created needs to be compatible with the environment where the organization functions, and with the structure of the organization. Information regarding the control mechanisms created need to be communicated with all employees of the organization clearly. Giving feedback regarding the results of the control applications is an important feature that control mechanisms should have.

Organizations perceive opportunities in many areas with the development of information and communication technology, and gain competitor's advantage by using these opportunities and earn high premiums. There are some threats that technology brings to organizations along with opportunities. The concept of cyberloafing is regarded as the most important threat that technology creates in organizations, and it's a topic that many researchers focus on. Cyberloafing is the use of information systems and particularly internet, that is provided by the organization to reach organizational goals, by employees to shirk duty and take care of personal business. Research shows that employees lead to consequences that decrease productivity and damage the organization such as not performing tasks, slowing down the work pace, failing the production, flawed production, and using work time for non-work related things by using computers and the internet technology provided for them for personal business.

Stress is an integral part of daily lives of individuals and it has an important place in terms of psychologically and physically (Yildirim et al., 2016;18). Fast changing external environment conditions and increased competition are reflected on work conditions, and the challenging work conditions cause consequences such as employee disappointment, having negative feelings towards the organization, and decreased loyalty to organizational goals. Employees with negative attitude and feelings towards the organization become cynical individuals over time and organizational cynicism emerges. Organizational cynicism is the negative attitudes that employees develop towards their organizations. Organizational cynicism is important in terms of the negative results it creates because it leads to a decrease in job satisfaction, trust and organizational loyalty, estrangement of employees to the organization, and a decrease in organizational efficiency and productivity by causing burn-outs among employees. Cynicism should be paid attention to by organizations due to negative results it causes, and cynicism should not be experienced and even if it's being experienced, then it should be aimed to eliminate cynicism.

Ethical rules that organizations would influence the inclination of employees for cyberloafing which is not regarded as an ethical behavior because an organization that embraces ethical rules would try to avoid these behaviors that would decrease the organization's success. Herein, the level of embrace of organization's ethical rules by the employee becomes important. An employee who does not embrace the organizational ethical rules enough will not avoid cyberloafing behavior even though thinking that this behavior would decrease productivity. Control mechanisms of organizations influence employee's cyberloafing behavior. An employee who knows that he's being controlled regularly would be expected to avoid non-work related activities during work hours. However, there is also a possibility of leaning towards non-work activities due to the pressure from regular control. The determinant factor here is the perception of the employee on control activities. This study aims to determine how ethical climate and control mechanisms affect cyberloafing.

As cyberloafing is regarded as a behavior opposite to productivity, in the case when employees experience organizational cynicism, their inclinations towards cyberloafing may be affected because the interests of companies are not of any interest to cynical employees. In fact, cynical employees may show behaviors that would damage the company on purpose. Therefore, employees experiencing organizational cynicism can easily lean towards cyberloafing. So, another purpose of this research is to determine how organizational cynicism affect cyberloafing.

This study differs from other similar studies in terms of examining whether organizational cynicism plays a mediating role on the effect of organizational ethical climate and control mechanisms on cyberloafing. Additionally, this is an important study as it examines a fairly new research topic, cyberloafing in terms of multiple factors. This study will show antecedents of cyberloafing which cause multiple negative results for organizations and what kinds of relationships there are between these antecedents. The study will make suggestions on how to reduce cyberloafing by evaluating ethical values and control mechanisms based on the results. Also, as earlier research established that organizational cynicism decreases productivity, this study will examine the factors involved in the emergence of cyberloafing in an organization.

II) Developing Research Hypotheses

Organizational ethical climate is the organizational applications that help to explain behaviors and attitudes that are considered good and right, or bad or wrong. Ethical climate is a determinant of alternatives of solutions for conflicts or problems that occur in the organization (Yagmur, 2013:22). While behaviors compatible with the ethical climate of the organization are considered right behaviors, behaviors that are not compatible are considered wrong. The ethical climate of an organization is effective on all work climates of the organization (Wyld & Jones, 1997:466).

One of the factors that influence ethical climate is technology. Technology has a strong effect on how individuals and organizations work. Technology, particularly information and communication technologies, has been researched extensively (Haque, 2003: 43). Ethical use of technological opportunities provided for employees in the organization is a subject associated with multiple organizational concepts. While organizations accept the use of technology according to their own ethical values, they regard any adverse situation as unethical. However, employees can use technology in a way that is compatible to their own ethical values and not compatible with the organization's ethical values from time to time (Phukan & Dhillon, 2001:4). Cyberloafing is the use of technology, that is provided to employees by the organization to reach organizational goals, for loafing and taking care of personal business consciously (Lim, 2002: 677). With cyberloafing, employees visit sexually explicit websites that are in illegal nature, playing online games such as gambling, and downloading unlicensed data, or do activities that are not illegal such as writing personal e-mails, reading news online, and shopping. This way of using internet causes organizations to face multiple negative consequences including legal sanctions. Attitudes of employees in

regards to illegal or inappropriate use of communication and information technology create important consequences for organizations (Swinyard, Rinne, & Kau, 1990:655). Sometimes the use of technology that is considered unethical by the organization can be regarded as ethical by employees or vice versa. In order to avoid these confusions, the rules regarding unethical internet use should be communicated to employees clearly (Akman & Mishra, 2009: 1251).

Organizations' ethical values and attitudes shape the organizational ethical climate and this climate affects the level of inclination to cyberloafing by employees. Based on this, the hypotheses developed for this study are as follows:

H₁: As the employees' perception of organizational ethical climate increases, cyberloafing behavior decreases.

H_{1a}: As the employees' perception of organizational ethical climate increases, minor cyberloafing behavior decreases.

H_{1b}: As the employees' perception of organizational ethical climate increases, major cyberloafing behavior decreases.

The ethical climate matrix created by Victor & Cullen (1988) explains egoism at individual, local, and universal levels. Ethical climates in organizations are called egoist, benevolent, principle climates. Egoist climate perception is an indication of ethical decisions are made from an egoist perspective (Cevizci, 2008:98), meaning that personal interests of employees are considered in organization's decisions (Tsai & Huang, 2008: 567). When employees do not perceive egoism climate, they may think that the decisions made by the organization might contradict their own interests. When employees believe that these decisions are not just, honest, and sincere, then employee's trust to their organization can decrease (Brandes ve Das, 2006: 237). This can lead employees to experience organizational cynicism at the cognitive level. As distrusting organization creates a foundation for negative feelings to build, employee will feel the affective cynicism. Distrust of employees to managerial decisions will be reflected on their behaviors in organization over time and behavioral cynicism will occur.

Benevolent climate, another dimension of organizational ethical climate that refers to employees in an organization considering each other's benefits, creates a peaceful and happy work environment for employees (Kincaid, 2003:90). In a contradictory situation, there would be constant complaints, criticisms, negative behaviors towards other employees in an organization. In such an environment, employees may start experiencing cognitive and

affective cynicism with the influence of negative attitudes and hostile feelings that they embraced. Following this, behavioral cynicism will emerge (Ozgener, 2008:56).

In the principle climate, organizational decisions are compatible with previously determined rules and regulations (Suar & Khuntina, 2004: 12), and this climate allows individuals to act in a way that protects his personal values in alignment with these rules and regulations, thus, the possibility of employees experiencing organizational cynicism decreases (Kelley & Dorsch, 1991:56). As each application is being done in alignment with predetermined rules, employees will have positive thoughts about the organization and therefore these employees won't be expected to experience cognitive cynicism. Similarly, employees that have positive feelings towards organization will not experience affective cynicism and as their behaviors will be compatible with the organization's benefits/interests, these employees will not experience behavioral cynicism. Based on this information, the hypotheses developed are as follows:

H₂: As the employees' perception of organizational ethical climate increases, their organizational cynicism levels decrease.

H_{2a}: As the employees' perception of organizational ethical climate increases, their affective cynicism levels decrease.

H_{2b}: As the employees' perception of organizational ethical climate increases, their cognitive cynicism levels decrease.

Organizational control mechanisms emphasize the connection between the employee and organization with the influence of organizational culture, and make it easier to reach the goals determined through this connection (Tsui et al., 1997:1095). Organizational control mechanisms may also function as a motivating factor. Organizations can reward and motivate their employees based on the results of controls that show how successful employees are (Tsui and Wang, 2002:82). Organizations strive to adapt to technological developments and to increase human resources productivity in order to be efficient and effective aligned with their foundational purposes. As control is a practice that allows reaching organizational purposes, it has to be in every step of organizational processes, so that all resources in an organization can be used effectively.

Using internet provided by the organization for personal business during work hours, in other words, cyberloafing (Weatherbee, 2010:36) cause organizations to drift away from their goals, and cause employees and organizational activities to be ineffective and inefficient. That is why cyberloafing behaviors should be controlled. The common formal control methods for

monitoring cyberloafing behavior are monitoring and restricting internet use. Organizations, through the monitoring method, monitor their employees during work hours and therefore can identify behaviors that are not related to work behaviors (Ugrin & Pearson, 2013:818). With restricting internet use during work hours, employees are only provided internet use during break time (Cavusoglu et al., 2013:17).

Presence of control mechanisms, rewards and punishments based on the results of controls in an organization are one of the factors that affect employee performance. Employees that are aware of control mechanisms related to their work will try to do their jobs better and avoid non-work related activities in order to receive more rewards. As cyberloafing is a non-work related activity, employees would avoid cyberloafing. Based on this, the hypotheses developed are as follows:

H₃: As organizational control mechanisms in an organization become stronger, cyberloafing behaviors decrease.

H_{3a}: As organizational control mechanisms in an organization become stronger, employee's minor cyberloafing behaviors decrease.

H_{3b}: As organizational control mechanisms become stronger, employees' major cyberloafing behaviors decrease.

Control mechanisms contribute to gaining sustainable competitive advantage for organizations by reaching their foundational purposes in an effective and efficient way (Tum & Reyhanoglu, 2015:396). With today's understanding of management, control is not just material and final product control anymore. It has become control of information, documentation, organizational structure, and employee behaviors, etc. (Ertugrul, 2013:65).

Awareness and embrace of control mechanisms by all employees allow employees to engage in the control process, support the process, and develop a positive perspective about the control (Bozkurt, 2010: 133). An employee that embraces control practices would be an individual that is loyal to organizational goals and trust the organization, and this would affect his level of cynicism (Chrobot & Mason, 2003:34). Having control mechanisms compatible with the organizational structure, purpose, and goals affects employees positively (Doyrangul, 2001:2) and this decreases the inclination for cynicism experience. When employees are informed about conducted control practices and results obtained in a timely manner, and if performance evaluation and rewarding is done fairly and appropriately, then negativities such as lack-of-communication, rewards and promotions distributed unjustly, performances

evaluated poorly, that are antecedents of organizational cynicism will be eliminated (Altinoz, Cop, & sigindi, 2011:290). Considering these views, following hypotheses were developed:

H₄: As organizational control mechanisms become stronger, employees' level of organizational cynicism decreases.

H_{4a}: As organizational control mechanisms become stronger, employees' level of affective cynicism decreases.

H_{4b}: As organizational control mechanisms become stronger, employees' level of cognitive cynicism decreases.

Multiple changes have occurred with the replacement of traditional work environment with modern organizations. Changing organizational structures and ways of competition are being reflected on interactions within organizations. Employees started to prioritize their own interests; their behaviors and attitudes have been changing that may create conflicts (Varoglu & Sigri, 2013:642). Psychological exhaustion of employees due to the increase of challenging work conditions (Davoudi et al., 2013:15) creates several negative attitudes and behaviors such as depression, burn-out, and cynicism (Guerrettaz, 2012:23). With the effects of negative attitudes, employees tend to behave in a counter-productive manner (Penney & Spector, 2005:792) and engage in cyberloafing.

Research suggest that overlooking employees' performance and devotion by supervisors, not being appreciated, appreciation and rewarding of employees that work less, losing faith on employers for making just decisions, challenging employees with more and more difficult job descriptions are some of the factors that lead employees to organizational cynicism and counter-productive manners such as cyberloafing (Lou et al., 2013:456; Karadal & saygin, 2013: 208; Zhu, 2013:13). Based on this perspective, the hypotheses developed are as follows:

H₅: As employees' level of organizational cynicism increases, cyberloafing increases.

H_{5a}: As employees' level of affective cynicism levels increases, minor cyberloafing increases.

H_{5b}: As employees' level of affective cynicism increases, major cyberloafing increases.

H_{5c}: As employees' level of cognitive cynicism increases, minor cyberloafing increases.

H_{5d}: As employees' level of cognitive cynicism increases, major cyberloafing behaviors increase.

Organizational loyalty is achieved when employees' personal ethical principles that are formed in alignment with their personal values are compatible with organization's ethical principles (Finegan & Theriault, 1997:711). As long as the organization's policy and practices

are aligned with organizational ethical values, employees would accept these as right. Otherwise, when employees face practices that are not compatible with organizational ethics, they experience disappointment and start behaving unethically (Kirel, 2007: 325). An employee who feels that his loyalty to his organization decreases would not avoid engaging in counter-productive behaviors.

Cyberloafing is one of the leading factors that decreases employee productivity in work life embedded in information and communication technology. Employees may want to prevent organization from efficiency and productivity by cyberloafing as a reaction to organizational policy and practices. This situation would cause employees to hold negative and hostile feelings towards organization. It can be expected that cynicism can play a mediator role in employee's cyberloafing behaviors who finds organizational policy and practices unethical because organizational cynicism is a negative attitude towards an individual, group, ideology, or the whole organization with the influence of disappointments and negativities experienced (Kalay, Ograk, & Nisanci, 2014:128). It is through the effect of this attitude that an employee tend to cyberloaf to damage the organization.

Organizational cynicism emerges when employees face long and busy work hours, ineffective leadership practices, and unethical organizational attitudes in an organization. Employees that experience organizational cynicism start to be less sensitive towards organization and start to damage it (Turkoz, Polat & Cosar, 2013:289). An employee experiencing organizational cynicism at the behavioral level want to turn his negative feelings into behaviors, and cyberloafing is one of the alternatives behaviors. In cyberloafing, employees use the internet provided for them by the organization to fulfill their tasks, for non-organizational activities and cause a decline in productivity (Greenfield & Davis, 2002:348). Cynical employee who thinks that the organization creates negativities for him would damage the organization by low productivity. In this study, based on the information presented, it's suggested that organizational cynicism plays a mediating role on the effect of organizational ethical climate on cyberloafing. The hypotheses developed within this scope are as follows:

H₆: Organizational cynicism plays a mediating role on the effect of organizational climate on cyberloafing.

H_{6a}: Organizational cynicism plays a mediating role on the effect of employee perception of organizational ethical climate on minor cyberloafing behaviors.

H_{6b}: Organizational cynicism plays a mediating role on the effect of employee perception of organizational ethical climate on major cyberloafing behavior.

Having control mechanisms in an organization is an indication of employees are being monitored and their behaviors are evaluated. Organizations should use control mechanisms effectively in order to reach their goals and purposes. The presence of control mechanisms benefit organizations. The most important benefit is to make sure that the organization uses its resources effectively and efficiently in alignment with its goals (Arcagok & Eryuz, 2006: 152). Therefore, managers use control mechanisms to direct human resources to be productive. As employees are aware of being monitored, they will try to behave as expected of them. However, being under constant control may create stress and anxiety in individuals. Experiencing stress and anxiety for being regarded as failure can make an employee a cynical individual over time (Brandes & Das, 2006:237). Cynical employees can lean towards cyberloafing because cynical individuals have a tendency towards negative behaviors such as damaging the organization and reducing production. Stress and negative feelings in employees caused by control mechanisms make employees cynical towards their organization. In addition to this stress, if these control mechanisms and their results are not communicated to employees in a timely manner, if their performance is not evaluated right, and if they are not rewarded fairly based on performance, then organizational cynicism emerges. Experienced cynicism will lead employees to cyberloafing behaviors. Considering these perspectives, it is suggested that organizational cynicism plays a mediating role on the effect of control mechanisms on cyberloafing. The hypotheses developed are as follows:

H₇: Organizational cynicism plays a mediating role on the effect of organizational control mechanisms on cyberloafing behavior.

H_{7a}: Organizational cynicism plays a mediating role on the effect of organizational control mechanisms on minor cyberloafing behavior.

H_{7b}: Organizational cynicism plays a mediating role on the effect of organizational control mechanisms on major cyberloafing behavior.

III) Data Collection Methods

The questionnaire used in the study consists of five sections and a total of 95 questions. The first section consists of 8 questions related to demographics of participants (gender, age, marital status, income level, education level, tenure in the organization, total number of years worked, and management position). The second section consists of a 26-item scale measuring organizational ethical climate. The third section has 28 items measuring organizational control mechanisms. The fourth section includes a 13-item scale measuring the level of

organizational cynicism of employees. The fifth section has 20 items measuring the level of cyberloafing of employees. The details of the scales used are provided below:

A) Organizational Ethical Climate Scale: This scale consists of 26 items to determine an organization's ethical climate, and it was adapted from Victor & Cullen's (1988) study. Victor & Cullen (1988) developed an ethical climate model and categorized ethical climate types seen commonly in organizations as egoist, benevolent, and principle climates. This categorization is used in this study.

Items 1-9 of organizational ethical climate are related to the *egoist climate* dimension. The first three of these items are reverse items. Items 10-14 are related to the *benevolent climate*, and items 15-26 are related to the *principle climate* dimension. Organizational ethical climate scale is a 5 point Likert scale (1: Strongly disagree – 5: Strongly agree).

B) Organizational Control Mechanisms Scale: This 28 item scale to measure organizational control mechanisms was adapted from Snell (1992). Organizational control mechanisms have three dimensions in this scale. Items 1-7 measure *input control*, items 8-16 measure *behavior control*, and items 17-28 measure *output control*. The items 10, 11, 14, 16, 18, 26 are reverse items and the scale is a 5 point Likert scale (1:strongly disagree – 5: strongly agree).

C) Organizational Cynicism Scale: This scale for measuring the level of organizational cynicism was adapted from Dean et al. (1998) and consists of 13 items. Organizational cynicism has three dimensions: affective, cognitive, and behavioral. Items 1-4 are related to *affective cynicism*, items 5-9 are related to *cognitive cynicism*, and items 10-13 are related to *behavioral cynicism*. This scale is a 5 point Likert scale with 1: strongly disagree and 5: strongly agree.

D) Cyberloafing Scale: This 20-item scale measuring cyberloafing behaviors is adapted from Blanchard & Henle (2008). Cyberloafing has two dimensions: minor and major. Items 1-11 are related to minor cyberloafing while items 12-20 are related to major cyberloafing. This is a 5-point Likert scale with 1: never, 2: once a week, 3: once a day, 4: multiple times a day, and 5: constantly).

IV) Population and Sampling

The population of this study consists of 305 employees in a credit rating center at a private bank operating in the city of Erzurum. The sample size is determined to be 170 with a 95% confidence level, and a confidence level of 5% (<http://www.surveysystem.com/sscalc.htm>). Considering the population size, 250 questionnaire forms were distributed

and 217 of these forms were returned and valid. The return rate of the questionnaires is 87%. Therefore, the sample size of this study consists of 217 participants. Simple random sampling is used for sampling.

In order to have the questionnaires filled out honestly, objective, and in alignment with the purpose of the study, a meeting with the managers of the bank were held and employees were given an explanation of the questions before the questionnaires were distributed. Employees of the bank and the participants were informed about the confidentiality of the information received regardless and how the data will be stored.

V) Analysis and Findings

According to the analysis, 56,2% of the participants are female. 20,3% of the participants are in the age range of 25 and younger; 71% in the 26-30; 8,8% in the 31-35 age range and there are no employees in the 35 and older age group. The most frequent age group is 26-30. The demographics show that 28,6% of the participants are married while 71,4% are single. The education level distribution show that 3,7% of the participants have a high school degree, 23,5% have associate's degree, 65% bachelor's degree, 6% master's, and 1,8% have doctoral degrees. The total number of years worked distribution showed that the 71,4% of the participants have been working for 1-5 years, 24% for 6-10 years, 4,6% 11-15 years. The distribution for the number of years worked in the organization showed that 87,6% of the participants have been working in the organization for 1-5 years, 10,6% 6-10 years, and 1,8% 11-15 years. The distribution for management position showed that 21,2% of the participants have management positions while 77,9% don't. The income level distribution showed that 18,9% of the participants have an income level between 1000TL-1500 TL; 64,1% have 1501TL-2000TL; 9,7% have 2001TL-2500TL; 6% have 2501TL-3000 TL; 0,9% have 3001TL-3500TL, and 0,5% have 3500TL and above.

A) Results of Confirmatory Factor Analysis

Confirmatory factor analysis was conducted on the scales and the fit index results for all the items in the scale are presented in Table 1.

Table 1: Goodness of Fit Index of Confirmatory Factor Analysis

	χ^2/df	CFI	NFI	NNFI	AGFI	RMSEA
Reference Values	$\leq 2, \leq 5$	$0,90 \leq$	$90 \leq$	$0,90 \leq$	$0,90 \leq$	$0,08 <$
Ethical Climate	2,29	0,97	0,95	0,97	0,87	0,078
Control Mechanisms	2,03	0,97	0,95	0,96	0,87	0,069
Cynicism	2,28	0,99	0,99	0,99	0,92	0,077
Cyberloafing	1,94	0,98	0,97	0,98	0,91	0,066

Table 2. Relationship between the variables

Factors	X	SS	1	2	3	4	5	6
1-Organizational ethical climate	3,57	,701	1					
2-Organizational Control Mechanisms	3,45	,514	,553**	1				
3-Affective Cynicism	2,73	1,134	-,074	-,101	1			
4-Cognitive Cynicism	2,92	1,097	-,276**	-,225**	,735**	1		
5-Minor cyberloafing	2,68	,997	-,048	0,49	,402**	,384**	1	
6-Major cyberloafing	2,05	1,159	-,181**	-,055	,408**	,409**	,639**	1

Table 2 presents the correlation values that show the relationships between the two dimensions (affective and cognitive cynicism) representing organizational ethical climate, organizational control mechanisms, and organizational cynicism, and the two dimensions representing cyberloafing (minor and major).

Table 2 shows that there is a significant and positive relationship ($r=,553$) between organizational ethical climate and organizational control mechanisms at the 99% significance level.

When the relationships between the dimensions of organizational cynicism are examined, a positive relationship was found between affective and cognitive cynicism ($r=,735$) at the 99% significance level. Examining the dimensions of organizational cynicism, and organizational ethical climate and organizational control mechanisms, no significant

relationship found between affective cynicism and organizational ethical climate ($r=-,074$) and organizational control mechanisms ($r=-,101$).

A significant negative relationship was found between the cognitive cynicism dimension and organizational ethical climate ($r=-,276$), and organizational control mechanisms ($r=-,225$) at the 99% significance level.

When relationships between the dimensions of cyberloafing are examined, a positive and significant relationship was found between minor cyberloafing and major cyberloafing at the 99% significance level ($r=,639$). When the relationships between the dimensions of cyberloafing and organizational ethical climate, organizational control mechanisms and organizational cynicism, no significant relationship was found between minor cyberloafing and organizational ethical climate ($r=-,048$) and organizational control mechanisms ($r=,049$). There is a positive relationship between minor cyberloafing and affective cynicism ($r=,402$) and cognitive cynicism ($r=,384$) at the 99% significance level. While there is a negative relationship that is significant at the 99% level, between major cyberloafing and organizational ethical climate ($r=-,181$), no significant relationship was found between major cyberloafing and organizational control mechanisms ($r=-,055$). And finally, there is a positive relationship between major cyberloafing and affective cynicism ($r=,408$) and cognitive cynicism ($r=,409$) that is significant at the 99% level.

B) Structural Equation Model Analysis

After determining the divergence and convergence validity of the measurement model, and reliability of the variables, a path analysis was performed. Table 3 presents the results of the structural model. The fit index of the model in Table 3 show that the goodness of fit values are at an acceptable level.

Table 3. Value Range of Fit Indexes

Index	Reference Value	Measure Model
X^2/sd	$\leq 2^a, \leq 5^b$ (a: very good fit, b: good fit)	2,03
RMSEA	$0,05 <$ (tolerance 0,08)	,078
CFI	$0,90 \leq$,93
NFI	$0,90 \leq$,93
NNFI	$0,90 \leq$,93
AGFI	$0,90 \leq$,90

The results of the path analysis used in testing the hypotheses developed according to the structural model are presented in Table 4. While ethical climate's effect on major and minor cyberloafing and cognitive cynicism is in the negative direction and significant, its effect on affective cynicism is not significant. When the effects were examined in terms of control mechanisms, it is found that the effect of control mechanisms on major and minor cyberloafing is positive and significant while the effect was not found significant on affective and cognitive cynicism. Also, it was found that affective and cognitive cynicism have positive and significant effects on major and minor cyberloafing.

Table 4. Path Analysis Results of the Research Model

			Std. β	Std.H	t
H _{1a}	Ethical climate →	Minor cyberloafing	-0,31	0,13	-2,47**
H _{1b}	Ethical climate →	Major cyberloafing	-0,45	0,12	-3,76**
H _{2a}	Ethical Climate →	Affective cynicis m	-0,12	0,12	-1,02
H _{2b}	Ethical Climate →	Cognitive cynicism	-0,35	0,12	-2,91**
H _{3a}	Control →	Minor cyberloafing	0,34	0,13	2,87**
H _{3b}	Control →	Major cyberloafing	0,41	0,12	3,60**
H _{4a}	Control →	Affective cynicis m	-0,026	0,12	-0,22
H _{4b}	Control →	Cognitive cynicism	0,002	0,12	0,02
H _{5a}	Affective Cynicis m →	Minor cyberloafing	0,35	0,07	4,79**
H _{5b}	Affective Cynicis m →	Major cyberloafing	0,35	0,06	5,24**
H _{5c}	Cognitive Cynicism →	Minor cyberloafing	0,16	0,07	2,12**
H _{5d}	Cognitive Cynicism →	Major cyberloafing	0,16	0,07	2,21**

** p<0,01

* p<0,05

Indirect, direct, and total effects in the model are presented in Table 5. As shown in Table 5, when the mediator role of organizational cynicism on the effect of ethical climate on minor cyberloafing is examined, both direct and indirect effects of ethical climate on minor cyberloafing can be seen. The same is seen when the mediating role of organizational cynicism on effect of ethical climate on major cyberloafing is examined. These results indicate that organizational cynicism has a mediator role. Additionally, the significance of the mediator role of organizational cynicism and the strength of this mediating role will be examined in detail while hypotheses are tested.

Table 5. Direct, Indirect, and Total Effects of Variables

Variables	Effects	Minor Cyberloafing	Major Cyberloafing	Affective Cynicism	Cognitive Cynicism
Ethical Climate	Direct	-0,31	-0,45	-0,12	-0,35
	Indirect	-0,10	-0,10	-	-
	Total	-0,41	-0,55	-0,12	-0,35
Control Mechanisms	Direct	0,34	0,41	0,00	0,00
	Indirect	0,00	0,00	-	-
	Total	0,34	0,41	0,00	0,00

Results

Structural equation model is used to test the hypotheses in this study. The structural model of this research was analysed with LISREL 8.80 software. In the research model, the independent variables are organizational ethical climate, and control mechanisms, the dependent variable is cyberloafing while organizational cynicism is included in the model as a mediator variable. In the data analysis, confirmatory factor analysis was conducted on the measurement model to examine the reliability and validity of the measurement model as the first step. According to the results obtained, scales are found to have high internal consistency as each scale measuring variables have a Cronbach alpha value of over 0,60. Fornell & Larcker's approach (1981) was used to test the divergence validity. In this approach, the square root of explained variance value for each concept should be higher than the correlation between the concepts. The obtained average variance value was found to be higher than the correlation values between variables. After determining the divergence and convergence validity of the measurement model, and the reliability of the variables, path analysis was performed.

The results related to the research model are as follows:

Organizational ethical climate affects employee's cyberloafing behavior, and organizational cynicism has a mediating role in this effect. The principles constituting the ethical climate embraced by employees within the organization is effective on whether employees engage in cyberloafing behaviors or not. Employees that are not loyal to ethical principles accept cyberloafing behavior as ethical and therefore won't avoid engaging in this behavior. Ethical climate perception of employee affects his minor and major cyberloafing behavior both directly and through organizational cynicism. An employee who believes that there is an ethical climate in the organization would experience organizational cynicism less. The decrease of organizational cynicism level would lead him to engage in cyberloafing behaviors less. Cognitive cynicism develops in employees who do not perceive ethical principles as guiding behaviors in the organization and this leads them to major and minor cyberloafing. In terms of another independent variable, organizational control mechanisms, the awareness of employees of control mechanisms, practices, and their results is effective on their cyberloafing behaviors. However, employees' perception of control mechanisms does not have a significant effect on their experiences of cognitive and affective cynicism. As control mechanisms do not have a significant effect on organizational cynicism, there is no mediating role of organizational cynicism on the effect of control mechanisms on cyberloafing. When direct and indirect effects between the variables in this study model are examined, the following results were found:

When the effect of organizational ethical climate on cyberloafing was examined, the perception of organizational ethical climate has a direct, reverse, and significant effect on minor cyberloafing ($\beta = -0,31$ ve $p=0.00$). This effect has a value that can be considered important on its own. The perceived ethical climate in the organization is effective on employees that are engaged in minor cyberloafing behaviors. Similarly, employees' perception of organizational ethical climate has a direct, reverse, and significant effect on engaging in major cyberloafing ($\beta = -0,45$ ve $p=0.00$). Perception of ethical principles bring along the decrease of major and minor cyberloafing behaviors. Wyld & Jones (1997) had similar results in their study and showed that employees who do not embrace organizational ethical principles are engaged in behaviors that reduce productivity and organizational productivity. The organization where the study was conducted operates in banking business where organizational rules and procedures are clear and mostly known by employees. Therefore, considering the loyalty of bank employees to ethical principles, it is expected to see that this loyalty has an aversive characteristic for cyberloafing behavior.

When the effect of organizational ethical climate on organizational cynicism was examined, a direct, reverse, and significant relationship was found. Organizational ethical climate does not have a significant effect on affective cynicism however, it has a direct, reverse, and significant effect on cognitive cynicism ($\beta = -0,35$ ve $p=0.00$). When employees feel that rules exist and practiced right in their organizations, that management decisions protect their interests, that there exists an ethical climate where employees are in good relations with each other, they don't have negative attitudes towards the organization. Cognitive cynicism is negative attitudes that emerge as a result of negativities such a unfair, unjust, bad treatment in the organization. Organizational ethical climate felt within the organization reduces cognitive cynicism. The results related to affective cynicism contradict the results of research by Brandes & Das (2006), Ozgener (2008), and Kelley & Dorsch (1991). According to the results of these researchers, when employees believe that ethical principles exist in the organization, that their interests are protected with these principles, that rules are applied equally for everyone, and that through the practice of these rules a peaceful environment is created in the organization; employees do not experience neither cognitive nor affective cynicism towards their organization. It is possible for the employees in the organization where this study was conducted, that knowing their performances are protected with ethical principles, and a just, fair, and protected environment is created through these ethical principles may be driving them away from cognitive cynicism.

According to the data on the effects of organizational control mechanisms on cyberloafing, it was found that control mechanisms have significant and same directional effects on major cyberloafing ($\beta = 0,34$ and $p=0.00$) and minor cyberloafing (0,41 and $p=0.00$). These effects can be considered significant on their own. The hypotheses developed in this study were that when organizational control mechanisms are strengthened, employees' behaviors of major and minor cyberloafing would decrease. However, the analysis showed that the awareness by the employee of being monitored does not reduce the frequency of cyberloafing, on the contrary, it increases. Ozkalp et al. (2012) found similar results in their study and explained the reason as due to the feeling of knowing about being monitored constantly causes stress on the employee and this stress leads him to cyberloafing. Also, it is impossible to prevent cyberloafing activities that are conducted by smart apps installed on employees' cell phones and by the developing technology, through control mechanisms (Cavusoglu et al., 2013:17). Fundamentally, particularly minor cyberloafing activities are activities that distress and entertain employees. Blanchard & Henle (2008) suggest that it

would be wrong to categorize cyberloafing behaviors as completely negative and harmful behaviors, and state that on the contrary, cyberloafing activities that are performed on a regular frequency would increase the creativity of employees. Therefore, the focus should be more on the other antecedents of cyberloafing and lean towards regulations to affect these as tight control practices towards cyberloafing might result in unexpected consequences.

When the relationship between control mechanisms and organizational cynicism is examined, no effect of control mechanisms was found on affective and cognitive cynicism. However, it should be remembered that this result is limited to the organization where the study was conducted. On the contrary to the results obtained, Chrobot Mason (2003), Doyrangul (2001), and Altinoz, Cop, & Sigindi (2011) suggest that employees embracing control mechanisms are individuals that are loyal to purpose and goals, and that trust the organization, and having control mechanisms compatible with goals and purposes would have a positive effect on the employee. These researchers concluded that fair performance evaluation and rewarding based on the results obtained from the control practices would eliminate the feeling of unfairness and would not experience cognitive and affective cynicism as a result of this.

When the relationship between organizational cynicism and social loafing is examined, following results were found: When the level of affective cynicism increases, minor ($\beta = 0,35$ ve $p=0.00$) and major ($\beta = 0,35$ ve $p=0.00$) cyberloafing behaviors increase, and when the level of cognitive cynicism increases, minor ($\beta = 0,16$ ve $p=0.00$) and major ($\beta = 0,16$ ve $p=0.00$) cyberloafing behaviors significantly increase. It is concluded that factors that lead employees towards organizational cynicism such as ignoring employee performance and commitment by managers, not being appreciated enough, rewarding employees that work less, loss of belief in fair decision making by managers, etc. lead employees to show counter-productive behaviors. Lou et al. (2013), Karadal ve Saygin (2013), Zhu (2013) obtained similar results in their studies that the aforementioned factors that lead employees towards organizational cynicism would lead them to counter-productive behaviors such as cyberloafing.

To test whether organizational cynicism plays a mediating role on the effect of organizational ethical climate and control mechanisms on cyberloafing, structural equation model was used and indirect effects were evaluated.

Firstly the total effect of organizational ethical climate on cyberloafing was determined in order to determine the mediating role of organizational cynicism on the effect of

organizational ethical climate on cyberloafing behavior. As cyberloafing is considered as major and minor cyberloafing in the study, the results were evaluated separately. Total effect of organizational ethical climate on minor cyberloafing was found to be reverse, strong, and significant ($\beta = -0,41$ ve $p=0.00$). Of this total effect obtained, $\beta = -0,31$ portion is related to the direct effect of organizational ethical climate on minor cyberloafing while $\beta = -0,10$ is related to the indirect effect mediated by organizational cynicism.

It was found that the total effect of organizational ethical climate on major cyberloafing is reverse, strong, and significant ($\beta = -0,55$ ve $p=0.00$). Of this total effect, $\beta = -0,45$ portion is related to the direct effect of organizational ethical climate on cyberloafing, and the $\beta = -0,10$ portion is related to the indirect effect mediated by organizational cynicism. As it was determined that ethical climate does not affect affective cynicism, the mediating role occurs only through cognitive cynicism.

To determine the mediating role of organizational cynicism on the effect of control mechanisms on cyberloafing, the total effect of control mechanisms was determined first. As cyberloafing is considered as major and minor cyberloafing in this study, the results were evaluated separately here as well. It was found that the total effect of organizational control mechanisms on minor cyberloafing is with positive direction, strong, and significant ($\beta = 0,34$ ve $p=0.00$). The total effect that was obtained is the direct effect of control mechanisms on minor cyberloafing, and there is no effect mediated by organizational cynicism. Similarly. The direction of the total effect of organizational control mechanisms on major cyberloafing is positive, strong, and significant ($\beta = 0,41$ ve $p=0.00$). All of this obtained effect is the direct effect of organizational control mechanisms on minor cyberloafing, and there is no indirect effect mediated by organizational cynicism. Therefore, organizational control mechanisms have only direct effect on both minor and major cyberloafing, and there is no indirect effect that occurs through organizational cynicism. Research that conclude that the more control mechanisms got strengthened and felt by employees, the more increase seen in minor and major cyberloafing did not support this study's hypotheses that claim that as organizational control mechanisms get stronger, major and minor cyberloafing behaviors of employees would decrease. The results obtained in this study are contrary to this. If control practices are felt at a level where employees are stressed and their autonomy in the workplace is restricted, then the consequences would be contrary to its goals. While the aim is to reach the goals determined, it would be possible to deviate from goals. What is important is to have control practices that do not restrict employee's flexibility and creativity. The most important factor

in obtaining competitive advantage is to keep employees' morale and motivations high, and this is an important factor in increasing productivity. Managers may decrease employee motivation by control practices that bore and restrict employees which may be reflected as additional expenses and low productivity on the organization.

Suggestions

This study aimed to identify the mediating role of organizational cynicism on the effect of organizational ethical climate and control mechanisms on cyberloafing. The generalizability of this field study conducted in banking business could be tested by applying it in organizations from different fields. Therefore, studies in different fields are suggested.

Considering the indirect effect of organizational cynicism, stronger mediating effects can be identified by adding different mediator variables to the model. Although cyberloafing is not completely considered as a negative concept, because it is a behavior that is counter-productive, various psychosocial variables such as estrangement, exhaustion, and bullying that may lead employees to this behavior, can be included in the model. And the mediating effects of these variables can be measured.

Fast-changing and fast-improving technological devices and methods are becoming more common in organizations and organizations can survive as long as they can keep up with these technological developments. The concept of cyberloafing is one of the organizational topics that is being researched with the development of technology. It is a fact now that cyberloafing is an inevitable behavior for organizations. Cyberloafing is a behavior that can not be prohibited completely, however, its damages can be reduced. This is the reason why organizations should try to manage this in a way that contributes to performance with minimum damages to the organization rather than eliminating this behavior. In this study, concepts such as organizational ethical climate, organizational control mechanisms, and organizational cynicism that are thought to be effective on cyberloafing are focused on in order to help organizations in this matter. With this study, the results obtained are related to how each concept focused on affects cyberloafing. Based on these findings, suggestions for organization managers are as follows:

It was found that in organizations with ethical principles to guide the organization are determined, and understood and embraced by employees, cyberloafing behaviors are reduced. As a result of fast improvement of information and communication technology, organizational ethical values are affected by technological developments and become a determinant in

establishing technological ethical values. Managers should change ethical principles just as they develop policies and practices for effective use of technology, particularly internet technology within an organization. The complete ban of use of internet which is an inevitable necessity of life, within an organization means restricting employees' creativity, flexibility, and freedom. What is important is the clear communication of what is ethical for an organization in terms of use of internet technology, and develop organizational ethical principles. This would allow employees to use internet technology efficiently and be able to draw the ethical lines for the internet they use within an organization.

Control is generally a function of management, and organizations should practice control as a process during every stage of all activities as the most important condition to be compatible with modern management concept and changing environment. Thus, several control mechanisms are created in an organization. Awareness of control mechanisms by employees, involvement of employees in the control process, and informing employees about results in a timely manner and right way will lead to success of control mechanisms. Resources will be used efficiently and effectively with control mechanisms in alignment with organizational goals. Although it can be thought that cyberloafing behaviors can be monitored and banned, the findings of this study show otherwise. The motivation of an employee whose creativity and freedom are restricted by control mechanisms may decrease and his commitment to organizational goals and aims may decrease. The stress caused by challenging work conditions and the struggle to survive in an increased competition results in decrease of employee performance. It should be remembered that as long as organizations put importance on factors that increase motivation of human resources, the productivity of employees will increase. Considering this, organizations should develop their practices accordingly. Control mechanisms should be evaluated and developed from this perspective and structured in a way that relaxes employees and gives them confidence. Organizations should lean towards practices that encourage order in the work environment and effective work rather than restricting employee's work environment. While doing this, employees should be involved in every step of the decision making. This would help employees to believe that they are not being strictly monitored and that they are being led towards moving in a certain order rather than being worried about punishments they would receive. These practices will increase employee motivation and employees will avoid counter-productive behaviors.

It was found that employees who experience organizational cynicism lean towards cyberloafing behaviors more. As explained previously, organizational cynicism is developing

negative attitudes of employees towards the organization due to negativities resulted from reasons that are both internal and external to the organizations. Organizations should know about the levels of cynicism of their employees, research the reasons behind their cynicism, and make improvements at the management level because organizational goals and productivity are not important for employees who experience cynicism. Employees with cynicism would lean towards counter-productive activities such as cyberloafing which creates an important problem. Managers should provide justice as the first step within organizations. When employees believe that there is justice and fairness in the organization, then the likelihood of them experiencing cynicism will decrease. Creating a good communication system will also be helpful in eliminating organizational cynicism. Having open communication channels within the organization and giving feedback on a timely manner to everyone would solve the lack of communication, and prevent misunderstandings. Another suggestions to prevent organizational cynicism is to provide career options for employees where they can improve themselves and spend quality time besides organizational activities. Trainings, workshops, or seminars can be held in this field and morale and motivation of employees can be kept high. Employees who are provided career options by the organization will not have negative feelings towards the organization. They will be more committed to organizational goals, and will not have cynicism. Involvement of employees in managerial decisions is another method to use in prevention of experiencing cynicism. If the employee thinks that he is effective in decisions made within the organization, then he won't hold the organization responsible of negative consequences of decisions, and he won't blame the organization when he experiences negativity.

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