

IV. INTERNATIONAL  
KAORU ISHIKAWA  
CONGRESS

on Business Administration and Economy

October 14, 2020 / New Delhi, India

Proceeding Book

**Editors**

Dr. Bhakta Bandhu DASH

Baha Ahmet YILMAZ

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# **IV. INTERNATIONAL KAORU ISHIKAWA CONGRES ON BUSINESS ADMINISTRATION AND ECONOMY**

**October 14, 2020 / New Delhi, India**



## **PROCEEDING BOOK**

### **EDITORS**

**Dr. Bhakta Bandhu DASH  
Baha Ahmet YILMAZ**

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# CONGRESS ID

## CONGRESS TITLE

- **IV. INTERNATIONAL KAORU ISHIKAWA BUSINESS ADMINISTRATION AND ECONOMY CONGRES**

## DATE AND PLACE

- October 14, 2020 / New Delhi, India

## ORGANIZATION

- ASBM UNIVERSITY

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# **IV. INTERNATIONAL KAORU ISHIKAWA BUSINESS ADMINISTRATION AND ECONOMY CONGRES**

October 14, 2020  
New Delhi, INDIA

**CONGRESS PROGRAM**  
*Online (with Video Conference) Presentation*

**Participant Countries:**  
India, Malaysia, Nigeria, Azerbaijan  
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**Meeting ID: 572 394 7582**  
**Passcode: 092020**



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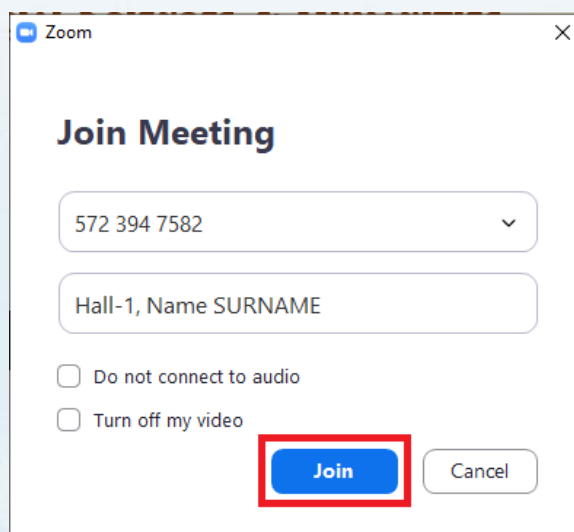
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**Dr. Bhakta Bandhu Dash**  
*Head of Conference*  
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*ASBM University*

# HALL-1

Meeting ID: 572 394 7582  
Passcode: 092020

14.10.2020	Time: 13 <sup>00</sup> -15 <sup>00</sup> (India Local time)	MODERATOR(S): <i>Dr. Bhakta Bandhu DASH &amp; Assoc. Prof. Vedat AKMAN</i>
Authors	Affiliation	Topic title
Assist. Prof. Dr. Dilaysu CINAR	<i>Beykent University</i>	THE EFFECT OF SALES PROMOTION ACTIVITIES ON SOCIAL MEDIA ON THE CONSUMER PREFERENCE: AN INVESTIGATION ON THE FITNESS CLUB
Abdulgaffar MUHAMMAD Sani GORA Imrana MUHAMMAD Saidu Mohammed SANI	<i>National Open University of Nigeria. Institute of Chattered Kaduna Electricity and Distribution Company Ahmadu Bello University</i>	THE RELATIONSHIP BETWEEN MARKET CAPITALIZATION AND FINANCIAL PERFORMANCE IN MONEY DEPOSIT BANKS IN NIGERIA (2006-2019)
Assoc. Prof. Cevdet KIZIL Assoc. Prof. Vedat AKMAN Assoc. Prof. İlkey ERARSLAN	<i>Istanbul Medeniyet University Beykent Üniversitesi Beykent Üniversitesi</i>	THE ECONOMICAL AND FINANCIAL IMPACT OF COVID-19 EPIDEMIC ON MIGRANT LABOR FORCE
Assist. Prof. Dr. Leyla AKGÜN	<i>Iğdır University</i>	A COMPARISON OF ACCOUNTING SYSTEMS: THE CASE OF RUSSIA AND CHINA
Assist. Prof. Dr. Levent AKSU	<i>Balıkesir University</i>	THE RELATIONSHIP BETWEEN ECONOMIC GROWTH AND CONSUMPTION OF ENERGY RESOURCES IN TURKEY
Asist. Prof. Dr. Hakan ONER Dr. Hande Kılıç SATICI Asist. Prof. Dr. Selma ONER	<i>Nisantası University Independent Researcher Istanbul University (Cerrahpasa)</i>	THE THREE BASIC METHODS FOR FINANCING THE BUDGET DEFICIT: A REVIEW OF TURKEY THE THREE BASIC METHODS FOR FINANCING THE BUDGET DEFICIT: A REVIEW OF TURKEY
Asst. Prof. Fatih Yiğit Res. Asst. İsmail Canöz	<i>Istanbul Medeniyet University</i>	THE IMPACT OF THE COVID-19 PANDEMIC ON AIRLINE STOCKS IN EUROPE: AN EVENT STUDY METHODOLOGY
Asst. Prof. Utku GÜĞERÇİN	<i>Adana Alparslan Türkeş Science and Technology University</i>	"HOW NASCENT ENTREPRENEURS DIFFER: THE USE OF SMITH'S ENTREPRENEURIAL TYPOLOGY"
Asst. Prof. Utku GÜĞERÇİN Emel Berkem SİĞIRCIKOĞLU	<i>Adana Alparslan Türkeş Science and Technology University</i>	DO CYBERSLACKING BEHAVIORS DIFFER IN TERMS OF DEMOGRAPHIC CHARACTERISTICS?



## HALL-2

Meeting ID: 572 394 7582

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14.10.2020	Time: 13 <sup>00</sup> -15 <sup>00</sup> (India Local time)	MODERATOR(S) – Tridisha BURAGOHAIN & Apak Kerem ALTINTOP
Authors	Affiliation	Topic title
Ali Umar AHMAD Suraya ISMAIL Aminu Hassan JAKADA Ahmad Tijjani ABDULLAHI	<i>Universiti Sultan Zainal Abidin Universiti Sultan Zainal Abidin Federal University Dutse Bayero University</i>	MODELLING COMPLEX ASYMMETRIC EFFECT OF MACROECONOMIC DETERMINANTS OF ENVIRONMENTAL DEGRADATION IN NIGERIA
Prof. Dr. Edip ÖRÜCÜ Itr HASIRCI	<i>Bandırma On Yedi Eylül University</i>	THE RELATIONSHIP BETWEEN THE FIVE FACTOR PERSONALITY PROPERTIES AND FOREIGNIZATION: AN APPLICATION BANDIRMA DISTRICT EXAMPLE ON PRIVATE SECTOR EMPLOYEES
Dr. Apak Kerem ALTINTOP	<i>Istanbul University</i>	SYRIANS UNDER TEMPORARY PROTECTION IN TURKEY AS A TARGET OF INFORMATION DISORDER: AN EXAMPLE OF ACCESS TO HIGHER EDUCATION
Dr. Cevat SOYLEMEZ Dr. Fatma DEMIRAG	<i>Kutahya Dumlupınar University</i>	A RESEARCH ON THE EFFECT OF MEETING CONSUMER NEEDS THROUGH WEBSITES ON E-LOYALTY
Prof. Dr. Özcan KARAHAN Asst. Prof. Musa BAYIR	<i>Bandırma On Yedi Eylül University</i>	THE ROLE OF RESEARCH AND DEVELOPMENT EXPENDITURES ON HIGH TECHNOLOGY PRODUCT EXPORTS IN OECD COUNTRIES
Prof. Dr. Özcan KARAHAN Asst. Prof. Musa BAYIR	<i>Bandırma On Yedi Eylül University</i>	EFFECT OF IMPORTED INPUT COMPOSITION ON THE TURKISH MANUFACTURING SECTOR PRODUCTION
Tridisha BURAGOHAIN Subha Kumar DAS	<i>Gauhati University</i>	IMPACT OF COVID-19 PANDEMIC AND LOCKDOWN ON THE MICROFINANCE BENEFICIARIES.
PhD. Özay YILDIZ	<i>Dokuz Eylül University</i>	INTERNATIONAL TOURISM RECEIPTS AND TURKISH ECONOMY IN THE LAST DECADE
Asst. Prof. Manita MATHARU	<i>Amity University</i>	A STUDY ON FUNCTIONAL FOOD CHOICES AMONG CONSUMERS – OPPORTUNITIES AND CHALLENGES
Prof. Dr. Serpil ALTINIRMAK Basil OKOTH	<i>Anadolu University</i>	CRYPTOCURRENCY BIBLIOMETRIC ANALYSIS
Prof. Dr. Serpil ALTINIRMAK Basil OKOTH	<i>Anadolu University</i>	THE CONTRIBUTION OF WOMEN ENTREPRENEURS TO THE TURKISH ECONOMY

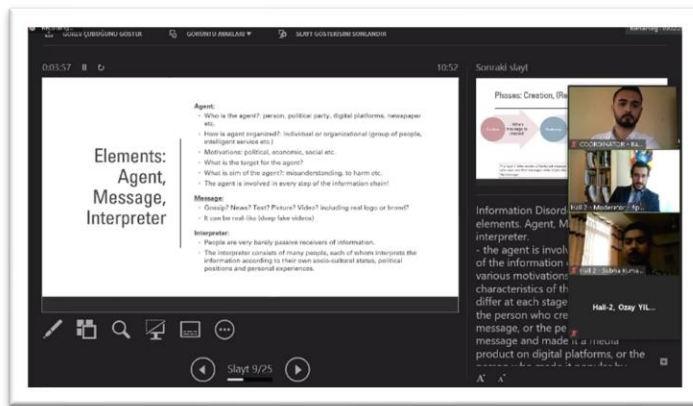
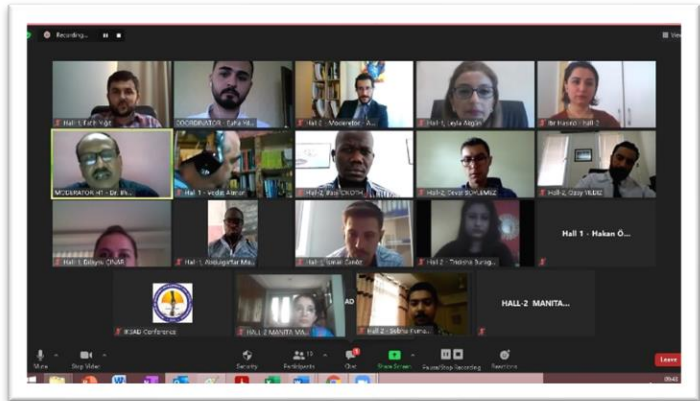
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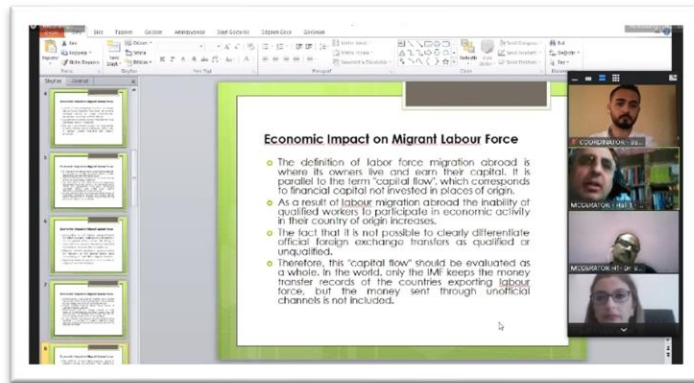
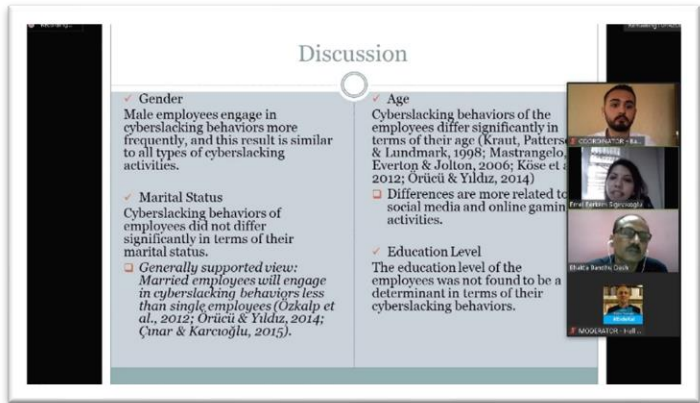
14.10.2020	Time: 13 <sup>00</sup> -15 <sup>00</sup> (India Local time)	MODERATOR(S)- Assist. Prof. Aazra NUH
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Dr. Abood Mohammed Jameel	<i>Cihan University</i>	STATISTICAL MODEL FOR UNBALANCED INCOMPLETE PAIRED COMPARISONS DESIGN
Assist. Prof. Aazra NUH Assist. Prof. Dr. Amalendu PAUL	<i>Rabindra Bharati University Diamond Harbour Womens' University</i>	NON-VERBAL CREATIVITY OF INTELLECTUALLY CHALLENGED STUDENTS WITH RESPECT TO AGE
MOHAMMED IDRIS	<i>University of Maiduguri</i>	MAIDUGURI METROPOLITAN COUNCIL REQUIRES MUCH MORE THAN EVACUATION!
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Mustapha Ibrahim Milala Sani Inusa Milala	<i>Abubakar Tafawa Balewa University</i>	GROWTH AND YIELD OF SESAME (SESAMUM INDICUM L) AS AFFECTED BY POULTRY MANURE AND WEED CONTROL METHODS
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Pramit PANDIT Prithwiraj DEY K. N. KRISHNAMURTHY	<i>Bidhan Chandra Krishi Viswavidyalaya G.B. Pant University Of Agriculture And Technology Applied Mathematics and Computer Science, University of Agricultural Sciences</i>	COMPARATIVE ASSESSMENT OF MULTIPLE LINEAR REGRESSION AND FUZZY LINEAR REGRESSION MODELS
Dr.Riadh MARZOUKI Prof. Dr. Mohamed Faouzi ZID	<i>King Khalid University University of Tunis El Manar</i>	EFFECTS OF P/AS SUBSTITUTION ON STRUCTURE AND ELECTRICAL PROPERTIES OF SODIUM DIPHOSPHATE-BASED MATERIALS
Dr.Riadh MARZOUKI Prof. Dr. Mohamed Faouzi ZID	<i>King Khalid University University of Tunis El Manar</i>	SYNTHESIS AND PHYSIOCHEMICAL STUDY OF TWISTED-MELILITE MATERIAL
Abiola Olawale Ilori Naven Chetty Bamise Adeleye	<i>University of KwaZulu-Natal</i>	RADIONUCLIDES IN FISH SAMPLES FROM THE OIL-PRODUCING AREAS OF SOUTH AFRICA AND THEIR DOSE ASSESSMENTS

# Photography Gallery



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## CRYPTOCURRENCY BIBLIOMETRIC ANALYSIS

**Prof. Dr. Serpil ALTINPARMAK**

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### ABSTRACT

When Bitcoin popped into the light of conventional finance and morphed into the pop culture that was digital finance with a meteoric rise in 2017, it was still viewed under a cloud of suspicion and distrust resulting from its previous association with the mysterious dark web. But the revelation of the possibility of a non-centralized currency was the culmination of work which had begun back in 2009. Since then both the academia and practitioners have been fascinated by the world of cryptocurrency in trying to explain how it came to be, how it is currently being used and the potential use that it can be put to. Despite being a young area of study, research on cryptocurrency has come to the fore of finance as it is considered by some as the future of finance.

This study thus seeks to outline the trends in the study of cryptocurrency through a Cite Space based bibliometric analysis providing details on the authors, locations, and references as well as charting possible areas for future research in the field.

Using Cryptocurrency, Bitcoins and Blockchain as the keywords, this study will look all the studies available on the web of science related to the subject matter. We believe the results of this study will inform the direction of further research on cryptocurrency.

**Keywords:** Cryptocurrency, Bitcoins, Blockchain, Bibliometric Analysis.

**MODELLING COMPLEX ASYMMETRIC EFFECT OF  
MACROECONOMIC DETERMINANTS OF ENVIRONMENTAL  
DEGRADATION IN NIGERIA**

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**ABSTRACT**

The environment and its resources have been very pleasant and precious to human survival. But with recent deteriorations of climate affecting human lives, natural resources and economies due to excessive Greenhouse Gas (GHG) emissions have entirely altered the relationship. The deteriorating state is as a result of the climate change that is generally associated with the activities of developing nations where more emphasis is given to human welfare at the detriment of environmental quality.

Those developing nations like Nigeria are weak in environmental regulations and enforcement strategies, much more vulnerable than that of the advanced countries as they tend to pollute multinationals and justify the haven pollution hypothesis. Therefore, this paper examines the effect of economic growth, financial development, and foreign direct investment on environmental degradation in Nigeria. This study used data from 1970Q1 to 2018Q4. The techniques of the Threshold Autoregressive Model and frequency domain causality used to analyze the data.

The results of the TAR model threshold only reject both the null of no cointegration and the symmetric adjustment at 1 percent and meaning level of 5 percent. Long-term cointegration in Nigeria, therefore, has a significant asymmetrical adjustment between economic growth, financial development, foreign direct investment, and environmental degradation. Moreover, the results of frequency domain causality indicating a significant short-run and long-run causality of LNFD, LNFDI, and LNGDP to LNCO<sub>2</sub>. This clearly shows that LNFD, LNFDI, and LNGDP are useful for forecasting LNCO<sub>2</sub> at various frequencies. In particular, the analyses support evidence that LNFD, LNFDI, and LNGDP lead movements of environmental degradation at a higher frequency level corresponding to the long-term and short-term. Hence, the paper concludes that there is evidence of the Pollution Haven Hypothesis (PHH) and the Environmental Kuznets Hypothesis (EKH) in the country. The policy response in the context of SDGs is to pursue growth by resource allocation to environmentally friendly economic sectors and securing sustainable consumption and production patterns and, most crucially, by controlling emissions

**Keywords:** Environmental Degradation, Frequency Domain Causality, Threshold Autoregressive Model.



## CONTRIBUTION OF WOMEN'S ENTREPRENEURSHIP TO THE TURKISH ECONOMY

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### ABSTRACT

The exclusion of women from the labor force causes a significant amount of labor and human capital to remain idle, and production and therefore economic growth to be realized far below the potential. For this reason, researches are carried out and various policies are produced in many countries to increase women's participation and employment in the workforce. Among these policies, it is possible to list practices such as positive discrimination against women in the labor market, quota system, incentives implemented through low employment taxes or partial exemptions, subsidies for childcare, maternity leave, flexible employment policies. Apart from employment-oriented policies, there are also entrepreneurship loans and grants and micro-credit applications that aim women to start their own businesses. Women's entrepreneurship is a form of employment that has been promoted especially in recent years as an economic solution to improve women's employment and women's status in the labor market.

Women make up 52% of the population in Europe. In Turkey, women constitute 49.8% of the population as of 2019. However, on 29% of these women are part of the workforce. It is important for women to gain economic freedom in order to avoid being second-class citizens in the society and not to be exposed to violence. The contribution of women owning their own business to the gross national and domestic product of a country has come to the fore mainly in the last thirty years, and in some countries only in the last five years. The World Bank has determined in recent years that nearly half of the world's economic growth can be attributed to the contribution of women entrepreneurs as can be seen in the examples of Hungary, Russia and Poland.

This study seeks to map the participation of women in economic activities and hence their contribution to the economy. In addition, using surveys to be conducted in all 81 provinces, this study seeks to examine the rate at which women entrepreneurs make use of the incentives provided by the government and other organizations in starting and advancing their business.

**Keywords:** Women entrepreneurship, Women empowerment, Economic Contribution.

## **NON-VERBAL CREATIVITY OF INTELLECTUALLY CHALLENGED STUDENTS WITH RESPECT TO AGE**

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*Diamond Harbour Women's University, Ph.D. Research Scholar*

**Assoc. Prof. Dr. Amalendu PAUL**

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### **ABSTRACT**

Our society comprises individuals with unique and diverse strengths and weaknesses. Yet, when it comes to individuals with intellectual challenges, many, including several parents of such individuals in our society, especially in Indian society, harbour the notion that intellectually challenged individuals are nothing but burden for the society. They think that these challenged individuals can never become contributing and productive members, for they lack intelligence and creativity due to insufficient vocabulary to express themselves. Such a notion has been proved to be erroneous by Howard Gardner's Theory of Multiple Intelligences (1983). Again, Silver (2007) has revealed that children with intellectual challenges often show non-verbal creativity (creativity free from language influences) through their drawings. In the present study the investigators tried to study non-verbal creativity of Intellectually Challenged Students with respect to age. Total 40 school going children with intellectual challenges from two special schools in Kolkata region (India) were selected by convenient sampling technique. In this study, 'Non-Verbal Test of Creative Thinking'(NVTCT-M), developed by Dr. Baqer Mehdi, was used. The data were analyzed with the help of 'T-test' and ANOVA through SPSS-20. The study revealed that age has no significant impact on total non- verbal creativity, elaboration and originality of students with intellectual challenges. It is expected that this study, though small, would make some significant contribution in the field of education.

**Keywords:** Intellectually Challenged Students, Non-Verbal Creativity

## STATISTICAL MODEL FOR UNBALANCED INCOMPLETE PAIRED COMPARISONS DESIGN

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### ABSTRACT

A class of modification is proposed for calculating a score for each Player/team in Unbalanced Incomplete paired Comparisons Tournaments. Many papers dealing with Balanced Incomplete Paired Comparison Tournaments with at most one comparison per pair have appeared since 1950. However, little has been written about unbalanced situations in which the player /the team (object) ( $j$ ) plays unequal number of games against the player/the team ( $m$ ) in a tournament, and the results of all games can be summarized in a Win-Lose matrix  $Y = \{ Y_{jm} \}$ , where  $Y_{jm} = 1, 0, 1/2$ , respectively, according as the player or the team ( $j$ ) wins, losses or draws against the player or the team ( $m$ ). Published papers by Ramanujacharyulu (1964), Cowden, D.J. (1975), and David, H. A. (1987) have concentrated on the problem of converting the results of unbalanced incomplete paired comparison tournaments into rank with little consideration of the main relative ability on each player or team. We suggest (modification) other ways of quantifying the outcomes of the games / tournament's ratings on a scale, 0-5, 1-6, 0-10, ect. It is important to consider not only the vector  $V_j^{(d)}$  or the vectors  $S_j$ , in scoring and ranking the  $k$  teams in such tournaments, but also the vector  $Z_j$ , where  $Z_j = S_j + S_j R_j$ , to take into account the ratio of the relative ability of each team ( $R_j$ ). The proposed modification helps to introduce these methods for use in comparisons/games (tournaments), where the player/team are quantified on a special scale. e.g. 0-5, 1-6, 0-10, etc. We conclude the following: -The scores stabilized to three decimal places at iteration 2 in Cowden's method  $V_j^{(d)}$ . see table. The scores stabilized to three decimal places at iteration 2 in David's method  $S_j$ , and its modification  $Z_j$ . The proposed modification ( $Z_j$ ) has the advantage of removing ties from David's method ( $S_j$ ), and hence it is the best method.

**Keywords:** Ranking, Rating on a scale, Scoring, Unbalanced Incomplete Design.

**APPLICATION OF ION PAIR COMPLEX FORMATION REACTION  
TO THE SPECTROPHOTOMETRIC INVESTIGATION OF  
NAPROXEN SODIUM IN BULK AND TABLET**

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**ABSTRACT**

Design of a spectral method for estimating Naproxen sodium by the ion pair complex creation with the safranin dye in the existence of the basic medium with the methanol as organic solvent to establish a color product soluble in the organic solvent, displaying the maximum absorption at  $\lambda_{MAX}$  518 nm additionally and at concentration ranging from (2 -60  $\mu\text{g} / \text{ml}$ ) according to Beer rule. The absorption quality of molar reached  $6.578 \times 10^3 \text{ L. mol. Centimeter}^{-1}$ ,  $0.030 \text{ mg cm}^{-2}$  Sandell's sensitivity analysis,  $0.945 \mu\text{g} / \text{ml}$  as detection limit, the relative standard deviation of the procedure does not surpass 0.732 percent of the process used effectively for the evaluation of Naproxen in tablets varied from 100.380-100.610 percent for both specific and normal additions. A statistical analysis of the outcomes was introduced utilizing T and F at 95% as confidence intervals. The outcomes of the statistical intervention indicated that there was no substantial difference between the two methods and, as a result, the recommended approach was appropriate for the pharmaceutical application. The results showed that the technique was reliable, accurate as well as reproducible (relative standard deviation < 2%), Whilst it is easy, cheap and much less labor intensive, the evaluation of NAP in formulations and breakdown experiments can therefore be properly implemented.

**Keywords:** Ion pair, Complex Formation, Spectrophotometric Determination, *Naproxen Sodium* bulk, Tablets

## **ECONOMICAL AND SOCIO DIMENSIONS OF SEAWEED FARMING**

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### **ABSTRACT**

Seaweed farming based primarily on the culture of *Eucaema* and *Kappaphycus* species has grown in the Philippines and Indonesia throughout the most recent two decades, with growth also taking place at a smaller scope in Tanzania, India and a few other nations. Unlike other forms of aquaculture, seaweed farming foregoes the use of feed and fertilizers and has least mechanical and capital necessities. Given these extraordinary characteristics, seaweed farming has generated substantial financial benefits to marginalized coastal communities in developing nations, most of which have diminished access to alternative economic activities. This farming makes employment generation in many counties. Given the rising worldwide demand for seaweed-derived products, seaweed farming has the potential to generate further socio-economic benefits to coastal communities in tropical regions; however, a number of difficulties and limitations (some of which are country-specific) will need to be addressed to fully take benefit of these opportunities.

**Keywords:** Seaweed farming, Aquaculture, *Eucaema* and *Kappaphycus*

## THE POTENTIAL BENEFITS OF GENE EDITING TECHNOLOGY FOR THE FUTURE OF POULTRY FARMING

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### ABSTRACT

The chicken is an example of productive intensive livestock farming and offers two important food products, chicken meat and eggs. By efficiency only aquaculture is better, but poultry is still top, by mass of animal protein provided as food in the global context. That efficiency and intensive production, however, poses a range of challenges. Even though the genetics of selective breeding have prompted dramatic enhancements in efficiency, yield, and product quality, traits that relate to disease and welfare outcomes have not been so manageable or tractable. So, these two issues are major impacts to the industry in terms of production and in terms of public perception. Both innovative transgenic technology and genome editing have clear potential for sway in these two significant areas. The reproductive or regenerative biology of birds requires methods very specific to birds to accomplish heritable (germline) edited traits. These are very included and, despite the fact that they are currently well-defined and reliable, there is opportunity to get better and advances can be expected in the future. Right now, the key focuses for this technology are modifying chicken genes involved in virus-receptor interactions and cellular response involved in infection. For the egg industry the technology is being applied to the issue of sex-selection for layer hens (and the removal of males), removal of allergens from egg white and the tailoring of eggs system to enhance the yield of influenza vaccine doses. Guideline, regulation and trading of the animals produced, and resulting food products, will fundamentally affect the value and future development of genome editing for poultry.

**Keywords:** Animal, chicken, poultry, eggs, genes, genome editing, sex-selection

**GROWTH AND YIELD OF SESAME (*SESAMUM INDICUM L*) AS  
AFFECTED BY POULTRY MANURE AND WEED CONTROL  
METHODS**

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**ABSTRACT**

The experiment was carried out with the aim of determining the effects of weed control and poultry manure application on growth and yield of sesame. The field experiment was conducted in 2019 raining season in the Modibbo Adama university of technology Yola teaching and research farm Adamawa State. The treatments consist of eight treatments, four from the main plot and four from the sub plot ( from the main plot Hoe Weeding @ 3 and 6 WAS, Pre emergence, Hoe weeding + Pre emergence and weedy check while Sub plot are 0t/ha, 5t/ha, 10t/ha and 15t/ha. They were replicated three times in a Split Plot Design. The experiment was subjected to Analysis of variance and means were separated using Duncan multiply range test at  $p=0.05$ . The results show that application of 15t/ha of poultry manure and Hoe weeding at 3 WAS + pre emergence herbicide gave the highest yield of sesame and performance as they were recorded during the sampling period. All the parameters including plant height, number branches, number of capsules per plant, sesame dry matter, weed dry matter and yield were significant.

**Keywords:** Adamawa State, Split Plot Design, Methods.

## **BIODIVERSITY AND FOOD SECURITY**

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### **ABSTRACT**

Food composition gives a significant connect to biodiversity and nourishment. Biodiversity at three levels of ecosystems, the species they contain and the genetic diversity within species can contribute to food security and improved nutrition. The Food and Agriculture Organization of the United Nations (FAO) and the International Plant Genetic Resources Institute (IPGRI) are driving another universal activity on biodiversity for food and nourishment under the umbrella of the Convention of Biological Diversity. Agricultural biodiversity is basic for food security throughout the world. At the genetic, species, and farming framework levels, biodiversity gives significant ecosystem administrations and functions for agricultural production. There is an urgent need to receive an agroecosystems approach, past on emphasis on genetic resource conservation alone, to implement other biodiversity-enhancing methods in farms, such as integrated ecological pest and soil management. Conflicting agricultural politics that promote monocultural industrial farming models and uniform technology packages need to be eliminated. If nutrient analysis and data dissemination of the various food species and intra-species diversity are systematically undertaken, national information systems for food and agriculture will be strengthened and can be used to form the basis for priority setting and national policy making. Nutrition and biodiversity include legitimately the Millennium Development Goals (MDGs): split the extent of individuals who experience the ill effects of craving; and guarantee natural manageability.

**Keywords::** Biodiversity Habitat, Management, Nutrition and Food security.



## COMPARATIVE ASSESSMENT OF MULTIPLE LINEAR REGRESSION AND FUZZY LINEAR REGRESSION MODELS

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### ABSTRACT

Predicting crop yield still remains as one of the challenging tasks in the field of agriculture. Even though multiple linear regression methodology has dominated the field of predictive modelling, it is constrained to its several stringent assumptions. It often fails to provide satisfactory results when the underlying relationship is not precise. Fuzzy linear regression methodology is one of the promising and potential techniques in handling such situations. In this study, efficiency of conventional regression models is compared with its fuzzy counterparts using data on sweet corn yield (t/ha), total weed dry matter (g/m<sup>2</sup>) at 30 DAS and total weed density (no./m<sup>2</sup>) at 30 DAS. Outcomes emanated from the study clearly shows the higher relative efficiency of fuzzy linear regression technique in comparison with the widely used simple and multiple linear regression techniques. This study also reveals that the fuzzy methodology has clear advantages over the conventional regression methodology in handling the situations, when the explanatory variables are highly correlated.

**Keywords:** Average width, fuzzy linear regression, model efficiency, multicollinearity, multiple linear regression.

## EFFECTS OF P/AS SUBSTITUTION ON STRUCTURE AND ELECTRICAL PROPERTIES OF SODIUM DIPHOSPHATE-BASED MATERIALS

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### ABSTRACT

Actually, Lithium oxides are the most compounds used in the manufacture of rechargeable batteries. In addition to the pollution reasons in prospecting for lithium, the latter is more expensive and less findable in the earth's layer compared to sodium which is found in mineral salts. It is therefore obvious to look for other alternative materials which can replace lithium oxides materials.

In this context, the exploration and investigation of sodium and transition metal phosphates and arsenates have a promising field for various applications: electrical, piezoelectric, ferroelectric, magnetic, catalytic [1-3] processes. In addition, given their remarkable structural richness, in particular the olivine structure [4] and the Sodium Super Ionic Conductor (NaSICON) structure [5], these materials show several interesting physical properties, in particular the ionic conduction and ion exchange [4-5]. These physicochemical properties are linked on the one hand to their structural riches and on the other hand to the degree of openness of their anionic frameworks, which can be dense, open or even microporous. Therefore, the investigation of this family of materials requires a good correlation between crystal structure and electrical properties, taking into account factors influencing the electrical conductivity such as porosity and the temperature range of stability of the crystal structure of the sample. In this work, the investigation of new sodium transition metals (Cu and Co) diphosphate-diarsenates will be treated. The effects of the P/As substitution on structure, thermal stability and electrical properties on the  $\text{Na}_2\text{CoP}_2\text{O}_7$  and  $\text{Na}_2\text{CuP}_2\text{O}_7$  parents' materials will be discussed. The properties of our materials will be compared to other ion-conducting materials, especially electrical properties.

**Keywords:** Li-ion batteries, Na-ion batteries, Structure, Thermal stability, Electrical properties.

## MAIDUGURI METROPOLITAN COUNCIL REQUIRES MUCH MORE THAN EVACUATION

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### ABSTRACT

The requirement of drainage has become one of the infrastructural necessity in most of the developing town, and most especially in the metropolis in the Nigeria, specifically Maiduguri metropolitan council MMC have prevail over the board for the need of drainage infrastructure due to the flood,

As housing become prone to the flooding disaster people of the area of Maiduguri metropolis become worried about their as its virtue in the daily hierarchy of human need, therefore this paper is structure to explore the needs of drainage system for sustaining the life and property for better living of life status, The study uses qualitative method to where question survey and direct observation method was used to gather data for establishing the basis for discussion,

Descriptive statistics, correlation and inferential use in exploring the result the study there by showing the pervasive impact of the flood.

**Key words:** Drainage, Evacuation, Building and flooding.

## THE IMPACT OF THE COVID-19 PANDEMIC ON AIRLINE STOCKS IN EUROPE: AN EVENT STUDY METHODOLOGY

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### ABSTRACT

The COVID-19 pandemic has struck all life, global economy, and financial markets. It stopped airline transportation in Europe and many regions of the world for a certain period as well as affecting many businesses negatively. At the beginning of this process, naturally, excessive losses occurred in stock markets. Airline stocks were among the most affected by this situation. From this point of view, this study analyzes 38 airline stocks traded in the stock markets of 14 European countries with “the event study methodology”. The main purpose is to compare the reaction of the airline stocks traded in the stock markets of these countries to the pandemic and to determine whether a statistically significant cumulative average abnormal return is provided from them. Accordingly, event windows are determined as short and long windows within the scope of the event study. The findings show that a statistically significant cumulative average abnormal returns for airline stocks in all countries occurred in the -50 +50 event window. Besides, in short event windows around the pandemic announcement on March 11, which is accepted as the event date in this study, airline stocks in some countries respond to the pandemic significantly, while others do not.

**Keywords:** The COVID-19 Pandemic, Event Study, Airline Stocks, Abnormal Return.

## EDUCATIONAL DATA MINING TO IMPROVE THE ACADEMIC PERFORMANCE IN HIGHER EDUCATION

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### ABSTRACT

Globalization and Innovation are mainly consider the great interest public sector and private business in the world especially in the higher education institutions. Educational Data Mining is mainly one of the business processes nowadays that attempt to bring the global innovation through improving and enhancing their processes and procedures to fulfill all the requirements and needs of the students as well as the institutions. The Educational Data Mining considered mostly concern with any research concerning the applications of the data mining and developing innovative techniques for data mining (DM) in the educational sector. This study mainly combined the use of the powerful online E-learning management system (Moodle) with data mining tools to improve the performance and effectiveness of the learning and teaching manners by using the innovative daily data that collected from the educational institutions.

**Keywords:** Data Mining (DM); Educational Data Mining (EDM); Moodle; Learning Analytical Enhance Rubric (LAe-R).

## RADIONUCLIDES IN FISH SAMPLES FROM THE OIL-PRODUCING AREAS OF SOUTH AFRICA AND THEIR DOSE ASSESSMENTS

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### ABSTRACT

This study was conducted to estimate natural radionuclide contents in twenty-four fish samples collected from rivers of South Africa's oil-rich and non-oil-rich areas. Also, the radiological analysis was performed to assess the effect of radiation on the population that consumed these fish. A high-resolution Hyper Pure Germanium (HPGe) detector was used to conduct the gamma-ray measurements. The mean activity concentrations for the selected fish samples from the examined areas for  $^{238}\text{U}$ ,  $^{232}\text{Th}$  and  $^{40}\text{K}$  ranged from  $(8.60 \pm 2.97)$ ,  $(4.26 \pm 1.18)$ ,  $(105.66 \pm 47.77) \text{ Bq. kg}^{-1}$  for the Bree;  $(8.06 \pm 3.64)$ ,  $(4.84 \pm 2.00)$ ,  $(126.88 \pm 47.30) \text{ Bq. kg}^{-1}$  for Klein-Brak;  $(8.30 \pm 3.64)$ ,  $(3.48 \pm 1.44)$ ,  $(90.42 \pm 29.35) \text{ Bq. kg}^{-1}$  for Bakens and  $(6.48 \pm 2.05)$ ,  $(5.26 \pm 1.79)$ ,  $(78.38 \pm 20.55) \text{ Bq. kg}^{-1}$  for uMngeni rivers. The annual effective ingestion dose ranged from  $0.050 \text{ mSv. y}^{-1}$  (*Argyrosomus japonicas*) to  $0.100 \text{ mSv. y}^{-1}$  (*Lichia amia*) for the Bree;  $0.033 \text{ mSv. y}^{-1}$  (*Pomadasyss commersonnii*) to  $0.118 \text{ mSv. y}^{-1}$  (*Pomatomus saltatrix*) for Klein-Brak;  $0.034 \text{ mSv. y}^{-1}$  (*Enteromius pallidus*) to  $0.090 \text{ mSv. y}^{-1}$  (*Anguilla marmorata*) for Bakens and  $0.046 \text{ mSv. y}^{-1}$  (*Anguilla marmorata*) to  $0.082 \text{ mSv. y}^{-1}$  (*Hypseleotris cyprinoides*) for uMngeni river respectively. Also, the estimated values for the annual equivalent dose of gonads, bone marrow and bone surface cells due to ingestion of fish samples ranged from  $58.77$  to  $127.27 \text{ mSv. y}^{-1}$  for Bree;  $42.14$  to  $125.94 \text{ mSv. y}^{-1}$  for Klein-Brak;  $39.34$  to  $84.97 \text{ mSv. y}^{-1}$  for Bakens and  $54.54$  to  $71.97 \text{ mSv. y}^{-1}$  for uMngeni rivers (control) respectively. The activity concentrations and radiological dose estimates reported for the studied areas were within the values recommended by the United Nations Scientific Committee on the Effects of Atomic Radiation. Hence, the result of the activity concentrations in the selected fish samples at the time of this study does not pose a radiological risk. The results could also be used as reference data for radioactivity pollution in the study area.

**Keywords:** Dose Assessments, Fish Samples, Norms, Oil, Radioactivity, Radionuclides.

## SYNTHESIS AND PHYSIOCHEMICAL STUDY OF TWISTED-MELILITE MATERIAL

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### ABSTRACT

Since 2010, the exploration of new sodium-based compounds has become an area of intense activity [1-3]. These materials have the potential to replace lithium-based cathodes in the new generation of batteries. This trend can be explained by the global increase in demand for lithium and its toxicity compared to the low cost of sodium and its abundance in nature [4]. In addition, the two main methods of developing new cathodes, which are currently being explored, are either by researching new crystalline materials or by improving known materials by improving their electrical properties and electrochemical performance. In both cases, crystallography remains the key to the development of these electrochemical systems as a determination of crystal structure, ion transport followed by electrochemical properties.

In this work, physicochemical study of sodium metal diphosphate-diarsenate will be treated. The crystal structure was characterized by X-ray diffraction on single crystal and polycrystalline powder. The Impedance spectroscopy and pathways simulation using Bond Valence Site Energy (BVSE) will be described to investigate the structure-electrical properties of the title materials.

**Keywords:** Na-ion batteries, Twisted -melilite structure, Electrical properties, Pathways simulation.

## THE THREE BASIC METHODS FOR FINANCING THE BUDGET DEFICIT: A REVIEW OF TURKEY

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### ABSTRACT

Budgets where government revenues and expenditures are estimated for a future period and that allow and authorize the collection of revenues and expenditures should be essentially equivalent. Until the 1929 Economic Depression, the principle of equivalence in state budgets was generally applied. However, after the 1929 economic crisis, public expenditures started to increase rapidly in parallel with the increase in the functions of the state with the interventionist understanding of the state and the inability of the increase in public revenues to follow the increase in public expenditures. It has created budget deficits, which is one of the most important problems of the financial system today.

Budget deficits occur when public revenues cannot cover public spending. Governments use various financing methods to finance budget deficits. Three main methods are used for financing budget deficits:

- Taxes
- Borrowing (domestic and foreign borrowing)
- Emission and seigniorage revenues (Monetization)

The methods used to finance budget deficits have different effects on monetary policy. When choosing financing methods, governments have to consider both the country's fiscal policies and monetary policy objectives.

Budget deficits, which constitute an important part of public sector deficits, have been on the agenda as an economic problem for both developed and developing countries for many years. The purpose of this study is to examine how the budget deficits can be closed through three basic methods of financing budget deficits: Taxes, Borrowing (domestic and external borrowing), Monetization (emission and seigniorage revenues). In this study it is examined by giving examples from Turkey.

**Keywords:** Budget Deficit, Tax, Debt Instruments, Monetizasyon.



## INTERNATIONAL TOURISM RECEIPTS AND TURKISH ECONOMY IN THE LAST DECADE

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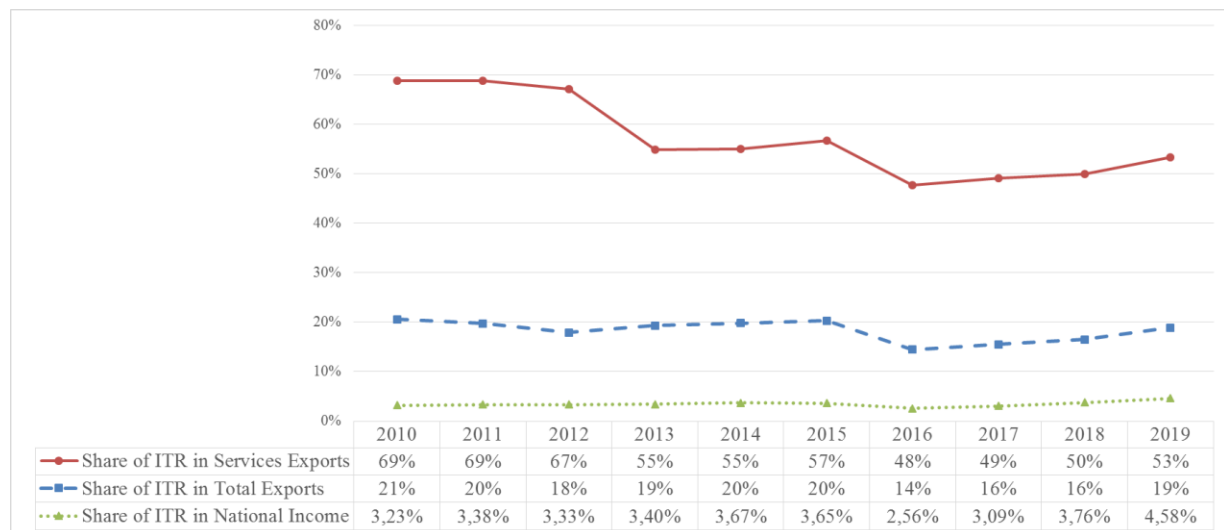
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### EXTENDED ABSTRACT

Tourism income is generally accepted to create higher added value, mainly due to its ability to enable value creation from, and thus exportation of immobile and (otherwise) free natural and cultural assets (Olalı & Timur, 1988). Foreign currency injection has traditionally been encouraging governments (of mainly developing countries) to invest heavily in tourism, which is perceived as a critical source of economic growth and overall development (İçöz, Var, & İlhan, 2009). However, tourism is infamously vulnerable to external factors and tourism markets tend to behave under direction of mass psychology (Günlü, 2007). Also, tourism expenditure is among the first ones to be foregone during periods of economic difficulty (İçöz, 2005). Therefore, international tourism receipts (ITR) fluctuate, sometimes abruptly and significantly, creating a major pitfall for economies dependent on tourism. Usually, the loss of ITR takes longer to recover mainly due to market pressures (Sönmez & Graefe, 1998).

Turkey has steadily developed to be a prominent destination, ranking 6<sup>th</sup> in the world in terms of international tourist arrivals (ITA) for 7 years between 2010 and 2019 (UNWTO, 2020). On average, for the last decade, ITR accounted for around 18% of total exports and 57% of services exports of Turkey, well above global averages of 7% and 29%, respectively (Ministry of Culture and Tourism, 2020; Turkish Statistical Institute, 2020; Central Bank, 2020; UNWTO, 2020), as illustrated in Table 1.

**Table 1: The Share of ITR in Services and Total Exports and National Income in Turkey**



Sources: Data compiled from Turkish Ministry of Tourism, Statistical Institute and Central Bank and UNWTO

The table illustrates the relative importance of tourism income for the national economy, and its rate of dependence. Despite a fluctuating but rather continuous 9% average increase in ITR between 2004 and 2014, and even pulling through the 2009 crisis with a slight drop of 1,3% (compared to the global 5,7% loss) in ITR, Turkish tourism suffered its worst tourism crisis to date in 2016, losing a third of its annual ITR (UNWTO, 2020), as shown in Table2.

**Table 2: Annual ITR of Turkey and Change (%)**

Years	Annual ITR (xUSD1000)	Change (%)
2010	24930997	-0,53%
2011	28115692	12,77%
2012	29007003	3,17%
2013	32308991	11,38%
2014	34305903	6,18%
2015	31464777	-8,28%
2016	22107440	-29,74%
2017	26283656	18,89%
2018	29512926	12,29%
2019	34520332	16,97%

(Source: Turkish Ministry of Culture and Tourism)

The drop was severe enough to decrease services and total exports, even causing a longer term decrease in the national income of Turkey (Central Bank, 2020). After the crisis Turkish tourism showed a strong resilience and recovery, and just as it recovered in terms of ITR in 2019, slightly edging off 2014, we witnessed the worst global catastrophe in international tourism in recent decades, in the form of COVID-19. Due to the quarantine and international flight regulations, a major loss in tourism and overall national and global economy is expected. In the first 8 months, a total of 9.2 million international visitors arrived in Turkey, compared to a hefty 35.6 million for the same duration in 2019 (Ministry of Culture and Tourism, 2020).

As the year draws to a close and as official statistics get published, we will be witnessing the overall loss of ITR and its effects on the national economy. It will also be of research interest to measure the duration of long-term recovery in terms of ITA and ITR.

**Keywords:** Tourism Economy, Turkish Tourism, International Tourism Receipts.

## REFERENCES

- Central Bank. (2020). The Central Bank of the Republic of Turkey - Balance of Payments Statistics. The Central Bank of the Republic of Turkey: <https://www.tcmb.gov.tr/wps/wcm/connect/tr/tcmb+tr/main+menu/istatistikler/odemeler+dengesi+ve+ilgili+istatistikler/odemeler+dengesi+istatistikleri>
- Günlü, E. (2007). Turizm Sosyolojisi ve Turistik Tüketici Davranışları. O. İçöz (Ed.), Genel Turizm - Turizmde Temel Kavramlar ve İlkeler (s. 167-182). Ankara: Turhan Kitabevi.
- İçöz, O. (2005). Turizm Ekonomisi (3rd Edition). Ankara: Turhan Kitabevi.
- İçöz, O., Var, T., & İlhan, İ. (2009). Turizm Planlaması ve Politikası - Turizmde Bölgesel Planlama (2nd Edition). Ankara: Turhan Kitabevi.
- Ministry of Culture and Tourism. (2020). Ministry of Culture and Tourism - Tourism Statistics. Ministry of Culture and Tourism: <https://yigm.ktb.gov.tr/TR-201116/turizm-gelirleri-ve-giderleri.html>
- Olalı, H., & Timur, A. (1988). Turizm Ekonomisi. İzmir: Ofis Ticaret Matbaacılık.
- Sönmez, S., & Graefe, A. (1998). Influence Of Terrorism Risk On Foreign Tourism Decisions. Annals of Tourism Research 25(1), pp. 112-144.

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IV. INTERNATIONAL KAORU ISHIKAWA CONGRESS  
ON BUSINESS ADMINISTRATION AND ECONOMY

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Turkish Statistical Institute. (2020). Turkish Statistical Institute - Main Statistics. Turkish Statistical Institute: <http://www.tuik.gov.tr/UstMenu.do?metod=temelist>

UNWTO. (2020). International Tourism Highlights, 2019 Edition. UNWTO: <https://www.e-unwto.org/doi/pdf/10.18111/9789284421152>

## A RESEARCH ON THE EFFECT OF MEETING CONSUMER NEEDS THROUGH WEBSITES ON E-LOYALTY

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### ABSTRACT

Internet usage is increasing day by day with the development of communication technologies. Accordingly, consumers are increasingly interacting with the website. Consumers visit websites for a variety of reasons, such as buying a product, reading news or checking their social media accounts almost every day. The aim of the study, which is considered to examine this behavior of consumers, is to examine the effect of meeting consumer needs through websites on e-loyalty. The data obtained within the scope of the research were collected by convenience sampling method. Structural equation modeling was used to compile the research. Exploratory and confirmatory factor analysis was used in the analysis of the data. According to the results in the study; electronic service quality and product quality positive impact electronic trust and electronic satisfaction. Electronic trust and electronic satisfaction positively affects electronic loyalty. The situational factors do not effect the electronic trust and electronic satisfaction. Product quality positively effects the directly electronic loyalty. The study examines the issue more deeply in the formation of electronic loyalty and etermination of variables affecting e-loyalty important for practitioners and researchers. The study gives a new perspective to the practitioners who use websites. It contributes to the practitioners' building customer loyalty towards their target audience through websites.

**Keywords:** E-Satisfaction, E-Loyalty, E-Trust, Situational Factors, E-Service Quality.

**THE RELATIONSHIP BETWEEN MARKET CAPITALIZATION AND  
FINANCIAL PERFORMANCE IN MONEY DEPOSIT BANKS IN  
NIGERIA (2006-2019)**

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**ABSTRACT**

Market capitalization is a paramount proxy for investors in the determination of the returns on their investment the continuous stock price fluctuation provides readily available information on the status of a publicly traded organization. Market Capitalization represents the public consensus on the value of the company's fund. The stock market theory proposes that stock prices can reflect all information about a company's historical or present position. The objective of this study is to assess the relationship between market capitalization and performance of deposit money banks listed in the Nigerian stock exchange. The study adopted the cause and effect research design. The population of the study consisted of the total deposit money banks in Nigeria quoted at the Nigerian stock exchange. The data was collected from the financial statement for the period of 2006-2019. The data obtained was synthesized and regression analysis was used in testing the hypothesis which revealed that ROE portrays a positive and statistically significant effect on financial performance proxy by market capitalization. The study concludes that market capitalization affects financial performance proxied by return on equity.

**Keywords:** Market Capitalization Return on Equity and Performance.

**Introduction**

The Nigerian capital market, which is a member of the Nigerian financial system, is a market that provides an avenue for the mobilization of long-term funds. This market serves the needs of industries, the commercial sector, government and local authorities, which are big borrowers of funds. The Nigerian capital market consists of two markets (primary and secondary markets) and some operational institutions. The main institutions in the Capital Market are the Securities and Exchange Commission (SEC), which is at the apex and represents the regulatory authority for the market, the Nigerian Stock Exchange (NSE), the issuing houses and the stock-broking firms. The secondary market in Nigeria is the NSE. In general, the Nigerian capital market helps to stimulate industrialization and development in the Nigerian economy. It also improves the gearing of domestic corporate sector and helps to reduce dependence on borrowing. Access to finance for new and smaller companies and the encouragement of institutional development is based on the framework provided by the Nigerian capital market. (Oluwatoyin, 2009).

Market capitalization is a measure of the value of companies and stock markets which is an on-going market valuation of a public firm whose shares are publicly traded on a stock exchange computed by multiplying the number of outstanding shares held by the shareholders with the current per share market

price at a given time (Oilman, 2004). A market capitalization calculation is a critical part of any stock valuation formula as it represents the total market value of all the company's outstanding shares. This represents the value the market has placed on the value of a company's equity. As outstanding stock is bought and sold in public markets, capitalization could be used as a proxy for the public opinion of a company's net worth and is a determining factor in some forms of stock valuation. Market capitalization represents the public consensus on the value of a company's equity. In public corporation, ownership interest is freely bought and sold through purchases and sales of stock, providing a market mechanism which determines the price of the company's shares (Kaundal and Sharma, 2010).

### **Objectives of the Study**

The study seeks to establish the relationship between market capitalization and performance of commercial banks listed at the Nigerian Stock Exchange (NSE).

### **Statement of Hypotheses**

The Hypothesis for the study is:

H<sub>0</sub>: Return on equity has no significant effect on market capitalization of money deposit banks in Nigeria.

### **Literature Review**

Oluwatoyin and Gbadebo (2009) studied the impact of share market capitalization on a company's performance using a case study in the Nigerian confectionary industry. Their study faces on the impact of companies' shares on their performance, using one of the largest confectionary companies in Nigeria as a case study. In other words, the article analyses the correlation between the sales of shares and the growth of the company.

While it adopts the Ordinary Least Square (OLS) analytical technique, using the company's annual data for 20 years, it recommends that the confectionary company should implement policies that would encourage increase in their profit after tax, dividends and turnover as these variables have positive and statistically strong significance on the changes in the company's performance and the value of its market capitalization. They concluded that when a company has a high turnover, it usually records a high profit after tax. Given a high profit after tax, if such a company declares a good bonus and dividends for its shareholders, this will also lead to an increase in its share price index. Investors will be attracted if a good dividend and bonus history is maintained and this will then increase the value of the market capitalization of the company. Consequently, more funds would be at the company's disposal for growth purposes and this will then lead to an increase in its turnover in an ever-flowing cycle.

Their study recommended that the confectionary company should create policies that will encourage increases in its profit after tax and their dividends as these variables have been statistically proven to have strong significances on the changes in the company's performance and the value to its market capitalization. Furthermore, it should improve on the policies relating to its dividends, market capitalization and turnover since they have some form of influence on each other, even though they are not statistically significant in the analysis.

### **Capital Asset Pricing Model (CAPM)**

The capital asset pricing model (CAPM) was derived by Sharpe (1964) and Lintner (1965). According to the CAPM, the expected excess return of an asset is linearly proportional to the expected excess market return, called the market risk premium.

Excess returns are returns above the risk-free interest rate. The market risk of an asset is measured by its beta, which reflects the systematic risk of the asset. Formally, it can be written in the following way:

$$E(R_i) = R_f + \beta_i (E(R_m) - R_f)$$

Where  $E(R_i)$  is the expected return of asset  $i$ ;  $(E(R_m) - R_f)$  is the market risk premium;

$\beta_i$  is the systematic risk. The capital asset pricing model (CAPM) relies on several assumptions including: investor preferences which looks at investor behavior as risk averse individuals seeking to maximize the expected utility of their wealth at the end of the period; Mean-variance preferences which holds that investors consider only the first two movements of return distribution when choosing an investment: the expected return and the variance; CAPM also holds that there are no operational friction like taxes and transaction costs; and that all assets are infinitely divisible. The theory further holds that all assets can be traded meaning that all claims to future cash-flows can be freely exchanged. This also means that each investor's wealth is entirely made up of tradable assets; the theory also assumes homogeneous beliefs where the investment period is the same for all investors and all investors have the same investment preferences. CAPM also holds that information is accessible free of charge and is available simultaneously to all investors therefore, there is nothing like information asymmetry. All investors therefore have the same return, variance, and covariance expectations for all assets. (Skamo, 2012).

### **Proxies of Profitability**

There are many profitability measures that can be used. Previous studies had widely used return on assets (ROA): return on equity (ROE) and return on invested capital (ROIC) also known as return on investment (ROI). Szymanski (1993) states that ROI and ROA can be viewed collectively. While these measures of profitability are widely accepted as reliable and strong measures of profitability they have certain shortfalls, most commonly that they are based on accounting information and thus account for neither time value of money nor the investment risks faced by the shareholders. (Skamo, 2012).

### **Return on Equity**

Return on Equity (ROE) is the best accounting ratio to measure shareholder performance (Ward and Price, 2006). Ward and Price (2006). Rothschild (2006) comment that the fact that ROE represents the end results of structured financial ratio analysis, also known as Du Pont analysis, it contributes to its popularity among analysts, financial managers and shareholders.

The components are profitability, asset turnover and financial leverage. From the equation ROE can therefore be improved by improving profitability and, by using assets more efficiently as well as by increasing financial leverage. Over time it has become clear that improving the ROE may not necessarily improve shareholder value.

According to De Wet (2007) some of the limitations of ROE include: ROE does not consider the timing of cash flows and thus may overstate returns; Asset turnover may be affected by inflation; Earnings can be manipulated legally within the framework of Generally Accepted Accounting Practice (GAAP). Thus, earnings may not truly represent true earnings; ROE is calculated after the cost of debt before considering the cost of own capital, which is not a free resource. This may lead to some companies reporting profits while not creating any value or even destroying value.

## Methodology

The research uses cause and effect research design which attempts to explain why that is, how one variable produces changes in another (Cooper & Schindler, 2003).

## Result and Discussion

This section presented the estimated findings of the cross-sectional observation involving a linear regression mode. All tests were carried out using statistical package for the social science (SPSS) and the findings presented accordingly in the proceeding section below. The study utilizes a sample of one hundred and forty (140) observations covering the time span of 2006 – 2019 using ten money deposits banks in Nigeria. The variables considered for the study are market capitalization and return on equity.

### Data Analysis (Inferential Analysis)

Correlation analysis was first applied to estimate the amount of relationship between the variables under discussion. While regression analysis was used to estimate the relationship between market capitalization and financial performance. Consequently, the model for the study is:

$$MC = \alpha_0 + ROE + \mu$$

**Table 1: Correlation Coefficient Matrix**

Correlations Matrix			
	FSMA	FSMA	ROE
Pearson Correlation	FSMA	1.000	
	ROE	.615***	1.000

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

(Source: Summary of SPSS OUTPUT 2020)

Table 1 present the correlation matrix of the independent and dependent variables used in this study. It basically reflects the relative strength relationship. It can be observed that there is a positive relationship of 0.615 between market capitalization and return on equity.

## Regression Analysis

The study employed panel data regression analysis to explore the association between market capitalization and firm's financial performance proxies by return on equity.

**Table 2: Regression Result for Panel Data**

Dependent Variable: Market Capitalization

Method: Linear Regression

Sample: 2006 – 2019

Periods included: 10

Cross sections included: 10



<b>Regression Result</b>			
	Coef	T- Statistics	P-value
(Constant)	7.613	120.061	0.000
ROE	0.038	9.168	0.000
R	0.615		
R-square	0.379		
Adj R-square	0.374		
F-statistics	84.046		
Sig	0.000		
Durbin-Watson	0.718		

(Source: Summary of SPSS OUTPUT 2020)

The study looks at the relationship between market capitalization and financial performance of Nigerian deposit money banks measured by market capitalization and return on equity. The result of goodness of fit test as presented in the table shows a coefficient of determination of  $R^2 = 0.38$  (38%) and adjusted  $R^2$  is 0.37 (37%); this shows that 38% variation in the dependent variable (Market capitalization is explained by the independent variable ROE).

The p- value of the F- statistics is 0.000 which is significant at 5% explaining the null hypotheses should be rejected and shows the fairness and non-biasness of the model. The Durbin-Watson is 0.718 which falls within the acceptable region and shows the presence of low auto-serial correlation which is common in time series data. This confirms the statistical reliability of the model.

Therefore, the model shows there is a significant relationship between market capitalization and financial performance of Nigerian deposit money banks. The findings resonate with the work of (Skamo, 2012).

### **Hypotheses Testing**

$H_0$ : Return on equity has no significant effect on market capitalization of money deposit banks in Nigeria.

From the regression analysis the dependent variable is market capitalization and the independent variable is ROE. From the result the relationship between MC and ROE has a coefficient (r) of 0.038 signifying a positive link (weak) between the two variables with a p-value of 0.000 significant at 5%. This shows a positive effect of performance on market capitalization.

### **Conclusion and Policy Implication**

The study shows that there is a significant relationship between banks performance (in terms of financial performance) and market capitalization. The study also indicates that although there is a relationship, it is weak and may not be the sole determinant of the changes witnessed in each variable from time to time. Each variable is influenced by other variables beyond those discussed in this study.

From the findings presented above, this study recommends that commercial banks make their decisions carefully to send the right signals to the investors as regards their prospects. This will help in reducing the chances of miscommunication which can distort the performance of the Bank at the NSE.

## REFERENCES

- Cooper, D.R and Schindler, P.S. (2003) Business Research Methods (8th edn) McGraw-Hill: New York
- De Wet, J. H. V. and du Toit, F.. (2007) return on equity: a popular but flawed measure of corporate finance performance. South Africa journal of business management. 38 (1) p59-69
- Kaundal, R. K. and Sharma, S. (2010). Stock Market Integration Examining Linkages between India and Select Asian Markets, Foreign Trade Review, Vol. XLV, pp.3 18.
- Oluwatoyin, M. and Gbadebo, O. O. (2009) The impact of share market capitalization on a company's performance: A case study in the Nigerian confectionary industry. African Journal of Business Management Vol.3 (5), pp. 220-226, May 2009
- Rothschild, M. (2006) shareholders pay for ROE then why are we still living in a margin only world? Strategic Finance. Nov, 27-31
- Ward, M and Price, A (2006), Turning vision into value Pretoria: Van Schaik

## **THE EFFECT OF SALES PROMOTION ACTIVITIES ON SOCIAL MEDIA ON THE CONSUMER PREFERENCE: AN INVESTIGATION ON THE FITNESS CLUB**

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### **ABSTRACT**

In an increasingly competitive environment, it is essential for brands to differentiate themselves because of the similarity of products, services, solutions and prices offered. Therefore, sales promotion activities carried out on social media become more and more important day by day in order to promote the newly released product, to make potential customers become existing customers, to increase the loyalty of existing customers, to remind the products that have begun to be forgotten, and to increase product sales. This study was carried out in order to reveal this importance. Therefore, the main purpose of this study is to reveal the effects of sales promotion activities on social media on the product preferences of consumers, and in line with this purpose, a questionnaire was made to the customers of a Fitness company in Istanbul. The customers also have a social media account and these customers follow this company on social media. The participants were examined whether the sales promotion activities of the company in question on social media were effective in choosing this company. 205 people participated in the study, and the study lasted one month. The survey consists of 30 questions and three parts. In the first part, demographic questions were asked to the participants. In the second part, questions were asked in order to reveal the general preference tendencies of the consumers towards the products with sales promotion on social media. In the third part, questions were asked in order to measure which sales promotion activities on social media would result in the product choice of consumers. As a result of the study, a statistically significant relationship was found between the coupon, buy one get one, price discount and a free sample campaign applied by the fitness company on social media, and the product preference of the consumer.

**Keywords:** Sales Promotion, Consumer Behavior, Marketing Communication, Social Media

### **Introduction**

Today, the intensification of the competition level and the change in the target audience profile make businesses more and more difficult to maintain the loyalty of existing customers and to turn potential customers into existing customers. Moreover, as the internet and technology improve day by day, consumers can find different alternatives of quality, price and variety in every field. This situation has become more effective with the increase in the use of social media.

Consumers can take many different actions using social media tools. On social media, consumers can both follow written and visual content related to a product and contribute to these contents by commenting. Likewise, consumers can be informed of them and can communicate with them one on one by following the profile pages of businesses or brands on social media. Before or after purchasing a product, consumers who exchange ideas with other consumers and their contacts through social media can be affected by these comments and shares and differentiate their possible purchases. Thanks to social media, communication between consumers has improved and strengthened. As a result of this empowerment, consumers have had the opportunity to express their requests about the product or the issues they are satisfied or not satisfied with more effectively. These developments show that social media tools have become a contact point in the communication of consumers with the product. All these developments also led to great changes in marketing communication activities and showed that using

advertising alone is insufficient. Therefore, besides activities such as advertising, public relations and personal sales, sales promotion activities should be focused on social media.

Sales promotion is a short-term activity that requires immediate results to encourage commercial members and / or to ensure that consumers receive a particular product or service faster and more (Hawkes, 2009:333). The sales promotion activities implemented by the businesses influence the preferences of the consumers and as a result of this situation, the enterprises can keep the demand alive in certain periods. Therefore, it is important to determine which sales promotion techniques are effective on consumers' decisions. For this reason, measuring the effect of sales promotion activities carried out on social media on consumer choice is essential for the business to gain competitive advantage, ensure its sustainability and increase its market share.

This study was carried out in order to explain the sales promotion activities of businesses for consumers and to determine how the sales promotion activities applied by businesses on social media affect consumer preferences. In the study, literature on the subject has been reviewed first. In this direction, sales retention methods were examined. As a result of the analysis, the theoretical bases of the hypotheses were formed. In the last part, an analysis of the survey study was conducted to measure the effect of a fitness company's sales promotion activity on social media on consumer preference.

### **Literature Review**

In the business world where intense competitive pressures are experienced, enterprises strive to be different, offer innovations, attract and sustain target audiences. In a world where hundreds of new products are introduced to the market every day, it is increasingly difficult to attract both intermediaries and consumers to the product and to make them buy again. At this point, sales promotion activities can both provide companies with a competitive advantage and allow quantitative evaluation of the reactions resulting from the activity (Oyman, 2004).

Sales promotion is a direct sales incentive tool that creates an additional value or incentive opportunity for consumers, sales power and intermediaries in order to achieve immediate sales. (Belch and Belch, 1998). Sales promotion is one of the marketing mix elements that have a strong impact on short-term consumption behavior (Laroche et. al., 2003). The increase in the number of researches on sales promotion has caused businesses to allocate more budgets for sales promotion activities and to use sales promotion as a strategic tool rather than tactical tools that solve short-term problems (Ndubisi and Moi, 2005). Although traditionally one of the main determinants of sales promotion activities is short-term sales effect, it should not be forgotten that sales promotion activities, especially consumer-oriented activities, are more strategic and communication-based practices that serve the purposes such as creating consumer attitude and brand preference in the long term (Öztürk, 1995).

Sales promotion tools can be divided into three parts: consumer, intermediary, and business's own sales force (Tek, 1999). Sales promotion tools for consumers encourage consumers to become customers of certain businesses or try and buy a product. Sales promotion tools for intermediaries encourage intermediary businesses to keep other businesses' own products and to market them actively (Oluç, 1989:7). Sales promotion tools for the company's own sales force aim to encourage the operating personnel and, in this way, the products and services of the enterprise are sold to customers in a higher quality and in a higher number (Bozok, 2009). Since this study was limited to sales development tools for consumers, sales promotion tools for intermediaries and for the company's own sales force were not included in the study.

The reasons why businesses use sales promotion tools extensively can be summarized as follows (Belch and Belch, 2001):

- Shifting of power balances in the market from manufacturer to retailer: The fact that retailers play an important role in promoting products due to reasons such as being closer to consumers than producers, having comprehensive information opportunities about consumers, and increasing modern and large-scale retail institutions.
- Reducing brand loyalty due to the continuous introduction of new brands to the market and seeking a solution to this problem with sales promotion activities.
- The consumer market tends to move away from mass and be divided into small market segments, and it is almost a necessity to make sales promotion activities specific to these market segments.
- The developments in computer technologies provide the opportunity to monitor and measure sales promotion activities daily.

The success of sales promotion practices depends on choosing the right target audience and using appropriate sales promotion tools for this audience. In determining these tools, the business should consider the brand personality in the market and how consumers and competitors will react to any sales promotion efforts (Gelb et. al., 2007). A successful sales promotion practice encourages consumers to ask for product information, enables consumers to purchase products on an unplanned basis, increases consumers' product trials, enables consumers to repurchase the product, contributes to store traffic, encourages retailers and customers to build stocks, and promotes intermediaries the sale of the product (Laroche et. al., 2003). Similarly, these applications are carried out not only to increase brand awareness, but also to enable consumers to try new products (Ndubisi and Moi, 2005).

Businesses carry out strong sales promotion campaigns or make changes in their price policies to affect the purchasing behavior of the consumer (Alvarez and Casielles, 2005). There are many studies to determine the response of consumers to sales promotion efforts. (Laroche et. al., 2003; Liao and Ze, 2006; Liao et. al., 2009; Yi and Yoo, 2011). In these studies, factors such as brand attitudes towards sales promotion activities, the effect of sales promotion activities on brand value perception, and whether the consumer buys the product more after sales engagement activities are analyzed. Based on the literature, it can be argued that there is a positive relationship between sales promotion tools and consumer preference in general (Bakırtaş, 2013). Sales promotion activities for consumers lead consumers to either buy immediately or buy later (Kotler, 2000). These can be summarized as free samples, coupons, cashbacks, contests and sweepstakes, buy one get one free and price discounts. Since the sales promotion activities of the fitness club, which is the subject of this study, on social media consist of coupons, buy one get one free, price discount and free sample, only these activities will be included in the study.

*Coupons:* It is a tool that has a certain monetary value on it, distributed with different methods, saves the customer as much as the monetary value written on the product to be purchased, and increases repeat purchases and sales in a short time (Pride and Ferrel, 2000). The most common sales promotion tools used by businesses are coupons and price discounts (Gilbert and Jackaria, 2002). Especially, studies on the effect of sales promotion on product trials and consumer repurchase behavior and the cost of sales promotion tools focus more on coupons. According to Ndubisi and Moi (2005), coupons have no effect on the product trial. According to them, the product trial determines the repurchase behavior. In addition, it mediates sales promotion and repeat purchasing behavior. Likewise, according to Taylor and Tolbert (2002), it was stated that coupons distributed during sales development periods have a sales-increasing effect and enable customers to come back to the business again. Dursun (1999) revealed that thanks to the coupons, consumers changed the brand they had bought before, but soon turned to their old brands. In the light of the above explanations, the following hypothesis has been formed in the study.

H1: There is a statistically significant relationship between the coupon campaign applied by the company on social media and the product preference of the consumer.

*Buy One Get One Free:* Buy one get one free campaign is to give anything to the consumer free of charge due to the purchase of a product. Liao and Ze (2006) argue that this type of sales promotion effort affects consumers differently depending on whether the promotional product is the same as the product received and when the award is given. According to the analysis findings, consumers prefer the promotion efforts where the same product is given as a promotion more than the sales promotion efforts where different products are offered. In addition, consumers prefer the situation where the prize is given instantly over the situation where it is given later. They claim that the sales promotion implemented by businesses has a significant effect on reminder unplanned purchasing behavior, especially the instant award-winning promotion applications support stronger reminder unplanned purchasing than the delayed award-winning applications (Bakırtaş, 2013). Based on this information, the following hypothesis has been created;

H2: There is a statistically significant relationship between buy one get one free campaign applied by the company on social media and the product preference of the consumer.

*Price Discounts:* Price discounts are, in short, discounts on the price of the product in order to increase the sales of the products. This type of sales development can appear in various ways and is used in a short term (Kara and Kuru,2013). The most common type is naturally discounts made on the sales price. Another type is related to buy now pay later campaigns. (Duncan, 2002). Fill (2002) and Shimp (2003) stated that the price discount practices of the enterprises affect the consumers to try the new product. Gilbert and Jackarie (2002) stated that price discount applied by businesses increase short-term sales Price-based activities such as price discount and installment advantages that provide an economic benefit can affect consumers more easily. According to the researchers, sales promotion activities, especially price discounts, significantly affect the purchasing behavior of consumers and can cause them to buy before they plan, buy in large quantities and try products they have not used before (Özaslan and Şahbaz, 2013). Based on this information, the following hypothesis has been created.

H3: There is a statistically significant relationship between the price discount campaign implemented by the company on social media and the product preference of the consumer.

*Free sample:* It is to give free products in order to enable the consumer to try a new product, to increase its sales volume and to spread to different market segments. In this method, it is assumed that once the product is purchased and tried, it can be purchased continuously (Çağlar and Kılıç, 2001). A free sample provided by the business can be used to prompt the customer to the action. For existing customers, the free sample can be considered as a reward of business engagement and a tool to improve loyalty (Palmer, 1994). Due to the intangible nature of the services, businesses try to give a concrete quality to their service provision by giving free samples to their consumers. Businesses aim to positively influence and satisfy customers' preferences and attitudes towards themselves by providing various free samples to their customers (Bakırtaş, 2013). In the light of this information, the following hypothesis has been created.

H4: There is a statistically significant relationship between the free sample campaign implemented by the company on social media and the product preference of the consumer.

## **Methodology**

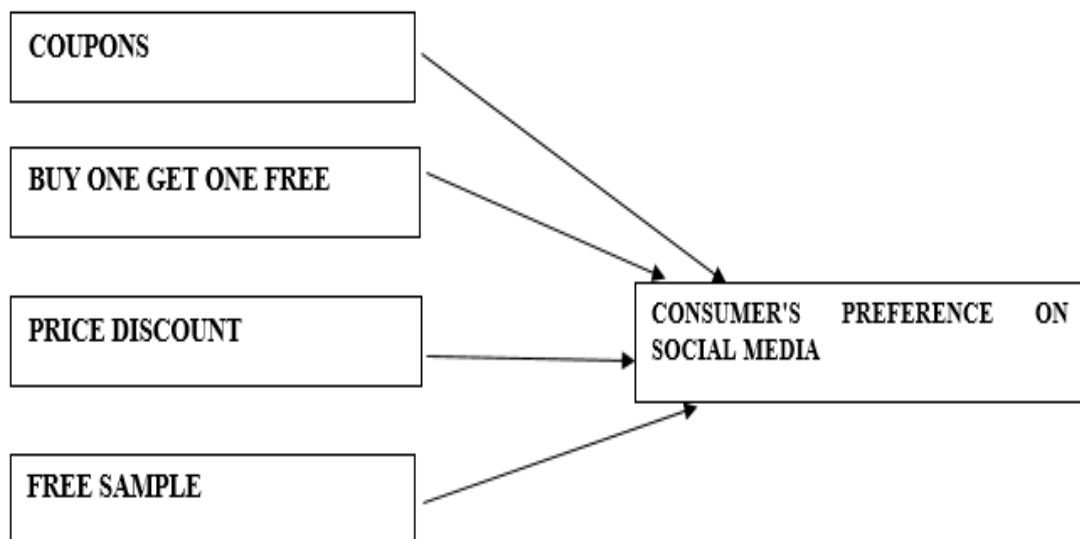
In this study a questionnaire method was used by face to face interviews, in order to measure the effect of sales promotion activities carried out on social media on consumer choice. Since the original language of the survey questions is English, the questions were translated into Turkish and then back translated.

The total number of questions in the questionnaire is 30 and consists of three parts. In the first part, demographic questions were asked to the survey participants. In the second part, questions were asked in order to reveal the general preference trends of consumers towards products or services with sales promotion on social media. For this, it has benefited from the scale developed by Das and Kumar (2010).

In the third part, questions were asked to measure which sales promotion activities for consumers on social media would result in product preference. For this, it has benefited from the scale developed by Gilbert and Jackaria (2002). The factors have been discussed in this questionnaire are coupons, buy one get one free, price discount and free sample. Population took place in a Fitness club in Istanbul. The study was carried out on individuals who are members of the fitness club and have social media accounts. 205 people participated in the questionnaire. The questionnaire application lasted about 1 month.

### Research Model and Hypotheses

The main purpose of this study is to measure the impact of sales promotion activities carried out on social media on consumer choice. For this purpose, the sales promotion activities of a fitness club operating in Istanbul on social media were discussed. The model created in line with this purpose is as follows:



**Figure 1:** The Research Model

As a result of the model created in line with the research purposes, the following hypotheses are discussed.

H1: There is a statistically significant relationship between the coupon campaign applied by the company on social media and the product preference of the consumer.

H2: There is a statistically significant relationship between buy one get one free campaign applied by the company on social media and the product preference of the consumer.

H3: There is a statistically significant relationship between the price discount campaign implemented by the company on social media and the product preference of the consumer.

H4: There is a statistically significant relationship between the free sample campaign implemented by the company on social media and the product preference of the consumer.

### Analysis of Research Data

"SPSS 16.0" package program was used to analyze the data obtained from the research. Through this program; descriptive statistics, validity and reliability analysis for both scales and multiple linear regression analysis were performed.

### Frequency Distributions of Demographic Variables

According to the results obtained from the frequency analysis, the majority of the participants are between 30-39 years old, male, single, with a monthly income between TL 3001 and TL 4000 and are at the undergraduate level. The results of the frequency analysis are given in the table below.

**Table 1:** Descriptive Statistics on Demographic Characteristics of Participants

Measure		Items	Frequency
Gender	Female	100	48.8
	Male	105	51.2
Marital Status	Married	91	45
	Single	114	55
Age	<20	12	5.9
	20-29	59	28.8
	30-39	86	42.0
	40-49	32	15.6
	50-59	10	4.9
	60 and above	6	2.9
Monthly Income (TL)	< 1000	13	6.3
	1000-2000	19	9.3
	2001-3000	44	21.5
	3001-4000	46	22.4
	4001-5000	36	17.6
	5001-6000	20	9.8
	6001 and above	27	13.2
Education Level	Primary education	10	4.9
	High school	43	21.0
	Associate degree	34	16.6
	Undergraduate	82	40.0
	Postgraduate	36	17.6

### The Reliability and Validity Analysis of Scales

In the study, internal consistency test was performed primarily in order to find out the result of whether the scales are reliable or not. The study conducted by Das and Kumar (2010) was used to find out the consumer preference for promotional products. In addition; questions about sales promotion have been prepared using the study conducted by Gilbert and Jackaria (2002). In this scale, coupons, buy one get one free, price discount and free sample factors are considered as factors that constitute the sales promotion scale. As a result of the internal consistency analysis, it can be stated that the scale is reliable, since the alpha coefficients of the factors that make up both scales are higher than 0.70. Then, explanatory factor analysis was performed in the study. The KMO value exceeding 0.60 in both scales indicates that the sample size is suitable. Additionally, the fact that  $p \leq .05$  in Bartlett's Test of Sphericity



indicates that the expressions in the scale are related to each other. The reliability and validity results of the factors in the studies are summarized in the table below.

**Table 2:** The Reliability and Validity Analysis of the Scales Used

Scales		Cronbach's Alpha	Total Variance Explanation Rate
Consumer Preference Scale		0,840	65,149
Kaiser-Meyer-Olkin Measure of Adequacy			,807
Bartlett's Test of Sphericity			200,779
Approx. Chi-Square:			10
df:			,000
sig.:			
Sales Promotion Scales		0,944	70,446
Factors on The Scale	Coupons	.842	54.279
	Buy One Get One Free	.838	7.107
	Price Discount	.868	4.767
	Free Sample	.853	4.293
Kaiser-Meyer-Olkin Measure of Adequacy			.945
Bartlett's Test of Sphericity			2915.173
Approx. Chi-Square:			190
df:			.000
sig.:			

After the reliability and validity analysis of the scales, multiple linear regression analysis was performed to test the hypotheses formed in line with the model in the study. The findings obtained from the analysis are given in the table below.

Model	Unstandardized Coefficients		T	Sig	Tolerance	VIF	Adjusted R <sup>2</sup>	Hypothesis Results
	B	Std. Error						
Consumer's Preference of Promotional Product in Social Media =  Coupons+	,747	,135	5,539	,000			,641	H1 was supported
	,320	,092	3,460	,001	,277	3,604		
	,222	,110	2,021	,045	,196	4,090		

<b>Buy One Get One Free+</b>								H2 was supported
<b>Price Discount+</b>	,104	,120	,869	,028	,165	4,047		H3 was supported
<b>Free Sample + ε</b>	,182	,086	2,110	,036	,325	3,081		H4 was supported

**Table 3:** Hypothesis Test According to Multiple Linear Regression Analysis Results

Initially, the Adjusted  $R^2$  value of the model was examined with the multiple linear regression analysis performed in the table above. Adjusted  $R^2$  value was taken into account due to the multiple linear regression of the study. This value is calculated as 0,641 in the model. In other words, four independent variables (coupons, buy one get one free, price discount and free sample) can explain 64.1% of the change in the dependent variable (consumer's preference of promotional product on social media). In the next step, the results of the Anova test belonging to the model were examined in the study. In the Anova test result of the model, the p value was found to be 0,000. For this reason, it can be said that the regression model is significant as a whole.

Then, the coefficient and significance values of the regression model were examined in the analysis. The coefficient of the constant term was calculated as 0,747 and the p value was specified as 0,000. In this case, it can be said that the constant term is statistically significant. Since the significance level of independent variables is less than 0.05 as a result of the T test, it can be stated that these variables are statistically significant at 5% significance level. In addition, it can be said that the relationship between the independent variables and the dependent variable is directly proportional. Because the regression model coefficients of independent variables are positive.

Afterward, the regression coefficients of the model were examined in the study. Accordingly, it can be stated that there is a direct proportion between dependent and independent variables in the model. Consequently, as the sales promotion activities (coupons, buy one get one free, price discount and free sample) increase, consumer's preference of promotional product on social media will increase. Finally, in the analysis, the ratio of Collinearity statistics for the model was examined. Accordingly, it can be stated that there is no correlation between independent variables since the VIF ratio is not 5 or higher in the model. Therefore, it can be stated that it would be appropriate to keep the variables in the model.

## Conclusion

The fact that consumer-oriented sales promotion efforts in social media convince consumers to buy and provide a competitive advantage to businesses have enabled digital marketing experts to use these methods more frequently on social media. On the other hand, lower costs, making the company more attractive to consumers, and easier control and measurement of consumer preference as a result of these activities can be described as other positive aspects of sales promotion activities carried out on social media. Likewise, the ability to implement personalized sales promotion activities specific to the target audience in social media can undoubtedly be described as its most important advantage. In the light of the explanations discussed above, it is understood that the subject is very important both in practitioners and in the academic field.

The main purpose of this study is to measure the impact of sales promotion activities carried out on social media on consumer preference. For this purpose, sales promotion activities of a Fitness club

operating in Istanbul on social media were discussed. The study was carried out by people who are members of the fitness club and have social media accounts. 205 people participated in the survey. The survey application took approximately 1 month. According to the results obtained by frequency analysis, the majority of participants are between 30-39 years old, male, single, with a monthly income between TL 3001 and TL 4000, and those with undergraduate education. The result has been reached in the study that four independent variables (coupons, buy one get one free, price discount and free sample) can explain 64.1% of the change in the dependent variable (consumer's preference of promotional product on social media). Additionally, the study concluded that the relationship between the independent variables and the dependent variable is directly proportional. Consequently, as the sales promotion activities (coupons, buy one get one free, price discount and free sample) increase, consumer's preference of promotional product on social media will increase. Among these factors, the activities affecting consumer choice the most were observed as coupons, buy one get one free, free sample and price discount respectively.

In the light of the results, it can be claimed that companies should increase their sales promotion activities on social media in order to increase sales in a short time, to attract the attention of consumers, to increase market share and thus to increase consumer preference. The limitations of the study are that the study was conducted through only one fitness company and not all sales promotion activities were included in the study. For this reason, comparing companies or performing all sales promotion activities in the scope of the study will provide more reliable and valid results for future studies.

#### REFERENCES

- Alvarez, B. A. and Casielles, R. V. (2005). Consumer evaluations of sales promotion: The effect on brand choice. *European Journal of Marketing*, 39(1/2), 54–70.
- Bakırtaş, H. (2013). Tüketicilerin satın alma kararı üzerinde satış tutundurmanın etkisi: Turizm sektöründe bir uygulama. *International Journal of Human Sciences*. 10(1), 676-694.
- Belch, G.E. and Belch, M.A. (2001). *Advertising and promotion: An integrated marketing communications perspective*. 5<sup>th</sup> Press, McGraw Hill: Boston.
- Bozok, D. (2009). Turizm işletmelerinin pazarlamasında tutundurma (Edit. : Avcıkurt et. al) In *Turizm İşletmelerinin Pazarlamasında 7P ve 7C*, Değişim Yayınları: İstanbul.
- Çağlar, İ. and Kılıç, İ. (2001). *Pazarlama*. Ankara: Nobel Yayın Dağıtım.
- Das, G. and Kumar, R. V. (2010). Impact of sales promotion on buyer behaviour: An empirical study of indian retail customers. *GMJ*, 3(1), 11-24
- Duncan, T. (2002). *IMC: Using advertising and promotion to build brands*. Mc Graw Hill: Boston
- Dursun, Y. (1999). Tüketicilerin gazetelerin hediye kuponları dağıtım uygulamalarına yönelik tutum ve davranışları. *Sosyal Bilimler Enstitüsü Dergisi*, 8, 373-383.
- Fill, C. (2002). *Marketing communications: Contexts, strategies and applications*. Third Edition. Essex: Pearson Education Limited.
- Gelb, B., Demetra, A. and Son, K. L. (2007). A strategic perspective on sales promotions. *Mit Sloan Management Review*, 48(4), 1-7.
- Gilbert, D.C ve Jackarie, N. (2002). The efficacy of sales promotions in UK supermarkets: A consumer view. *International Journal of Retail & Distribution Management*, 30(6/7), 315–322.
- Hawkes, C. (2009). Sales Promotions and Food Consumption. *Nutrition Reviews*, 67(6), 333-342.
- Kara, M. and Kuru, D. (2013). Satış geliştirme faaliyetlerinin satın alma kararına etkisi: Hizmet sektöründe bir uygulama. *Adıyaman Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 6(12), 150-190.

- Kotler, P. (2000). *Pazarlama yönetimi* (Trans.:Nejat Muallimoğlu). Beta Basım Yayın: İstanbul.
- Laroche, M., Pons, F. and Zgolli, N. (2003). A model of consumer response to two retail sales promotion techniques. *Journal of Business Research*, 56, 513-522.
- Liao, S.-L., Shen, Y.-C. and Chu, C.-H. (2009). The effects of sales promotion strategy, Product appeal and consumer traits on reminder impulse buying behaviour. *International Journal of Consumer Studies*, 33, 274-284.
- Liao, S.-L. and Ze, Y. (2006). The effects of nonmonetary sales promotions on consumer preferences: The contingent role of product category. *Journal of American Academy of Business*, 8(2), 196-203.
- Ndubisi, N. O. and Moi, C. T. (2005). Customers behavioural responses to sales promotion: The role of fear of losing face. *Asia Pacific Journal of Marketing and Logistics*, 17(1), 32-49.
- Oluç, M. (1989). Satış tutundurma ve satış özendirme-Sale promotion. *Pazarlama Dünyası*, 3(18):1-7.
- Oyman, M. (2004). Tüketicilerin satış tutundurma etkinliklerine yönelik tutumları ve yarar algılamaları. *Sosyal Bilimler Dergisi*, 2004(1), 55-76.
- Özaslan, Y. and Şahbaz, R. P. (2013). İstanbul'a gelen yabancı turistlerin ürün tercihlerinde satış geliştirme faaliyetlerinin etkisi. *Ege Akademik Bakış*, 13(1),83-97.
- Öztürk, S.A. (1995). Satış tutundurma faaliyetlerine uzun dönemli yaklaşım. *Pazarlama Dünyası*, 9(11), 24-29.
- Palmer, A. (1994). *Principles of services marketing*. London: McGraw-Hill.
- Pride, W. M. and O.C. Ferrel (2000). *Marketing concepts and strategies*, Houthton Mifflin Company: Boston.
- Shimp, T. A. (2003). *Advertising, promotion and supplemental aspects of integrated marketing communication*. Sixth Edition. USA: Thomson South-Western.
- Taylor, G.A. and Tolbert, S.L. (2002). Coupon promotions in quick-service restaurants: Preaching to the converted? *The Cornell Hotel and Restaurant Administration Quarterly*, 43(4):41-47.
- Tek, Ö.B. (1999). *Pazarlama ilkeleri global yönetsel yaklaşım Türkiye uygulamaları*, 8<sup>th</sup> Press, Beta Yayınları: İstanbul.
- Yi, Y. and Yoo, J. (2011). The long-term effects of sales promotions on brand attitude across monetary and non-monetary promotions. *Psychology & Marketing*, 28(9), 879-896.

## SYRIANS UNDER TEMPORARY PROTECTION IN TURKEY AS A TARGET OF INFORMATION DISORDER: SAMPLE OF ACCESS TO HIGHER EDUCATION

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### ABSTRACT

This research is to investigate the information disorder regarding the access of Syrians under temporary protection to higher education. False and untrue information is circulating about Syrians' access to universities, as well as on many issues. Based on Wardle's concept of information disorder, it's inquired that i) from which source, with which content university students and graduates in and after 2016 obtain this information, ii) how they interpreted, iii) with whom, in which medium, with what content they disseminate and share information, iv) whether they confirmed or not. Qualitative method is preferred in the research and semi-structured interviews were conducted with 38 participants. Interviews were conducted online due to the COVID-19 outbreak. MAXQDA.20 program was used in the analysis of the data obtained. While the age range of the participants is 20-29, the average age is 23.36. 68.42% of the participants are women while 31.58% are men. The participants mostly acquire distorted information in social media and face-to-face communication, most of the contents they encounter are criticism and reaction oriented. "Injustice", "competition" and "displeasure" were the prominent codes in the expressions in which the participants felt and thought when they first heard the information. Half of the participants shared their knowledge, while the other half did not. Those who disseminated shared mostly to express injustice or ask for whether the information is true or not. The reason for those who did not share information was knowing the truth, hesitation and being skeptical about the information. The confirmation rate is low (n=26- 68.42%). All confirming participants currently believe the information is incorrect. Confirmation has been found to be beneficial in terms of obtaining and discovering accurate information rather than contacting Syrian students or being friends.

**Keywords:** Information Disorder, Refugees, Higher Education, University

### Introduction

More than 3,6 million Syrians Under Temporary Protection<sup>1</sup> are in Turkey for about 9 years. While continuing their lives under temporary protection status, they also struggle with misinformation, fake news, false contents that contribute to hate speech against them, albeit at a low level. For instance, different false news on many different issues, such as that enrolling higher education without an examination, free of charge and unconditionally<sup>2</sup>, that they have their vehicles examined for free<sup>3</sup>, they have priorities at hospitals just because of they are Syrians<sup>4</sup>, are shared from time to time in traditional media, digital platforms and verbal. However, none of the information and news circulating is based on correct data. News that do not contain accurate information can cause harmful consequences such as hate speech, harm, social exclusion, peer bullying, and insults at the social and individual level. The increase in the speed of obtaining information and the diversification of resources also contribute to this.

The technological transformation, which brought the acceleration of the acquisition of information and the diversification of the sources, marked the last decade of the 20th century. This transformation

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<sup>1</sup> Due to Turkey's geographical reservation to the 1951 Refugee Convention, Syrians in Turkey do not get refugee status.

<sup>2</sup> <https://archive.fo/LFgdw>

<sup>3</sup> <https://twitter.com/umitozdog/status/1290698132473470978>

<sup>4</sup> <https://teyit.org/suriyeli-multecilerin-hastanelerde-yasal-oncelikli-hasta-sayildigi-iddiasi/>

continues and has created radical changes in the methods of acquiring and creating information in daily life. Moreover, “digital social networks have substantially facilitated the process of information sharing and knowledge construction.”(Jang & Kim, 2018, s. 295) Information obtained through traditional media and face-to-face communication before and during the beginning of this transformation can now be obtained much more rapidly from diverse sources, especially through digital platforms. Digitalized knowledge acquisition practice has positive aspects such as diversification of the ways of acquiring information, the capacity to access thousands of information with one click, and the speed of accessing information radically increased, as well as negative aspects such as increased exposure to false information. New social technologies, that facilitate rapid information sharing as well as access to information, also cause the spread of wrong information and bring people to face some risks such as exposure to information that is not true.(Jang & Kim, 2018, s. 295; Vosoughi vd., 2018, s. 1146)

In this context, the information and news that Syrians can enter the university they want without any conditions and without an examination have been published in social media channels, as well as in news web-sites<sup>5</sup>, television programs<sup>6</sup>, online forums<sup>7</sup> and written national newspapers<sup>8</sup>. Although these types of false information or news are expressed with different concepts such as fake news, dirty information, fake news, false content, disinformation, there is a consensus that this is an important problem faced by the society.(Donovan, 2020) However, the first important step towards defining such information is the concept of "information disorder", which was brought to the agenda by Wardle and Derakhshan (Wardle & Derakhshan, 2017) in 2017, and it is the term that expresses this situation in the most comprehensive way. In this study, Wardle's concept of information disorder was preferred, and news based on false grounds about Syrians' access to higher education was also preferred to be called “disordered information”.

### **Conceptual Framework: Information Disorder, Its Types, Elements and Phases**

Concepts such as fake news, false content, information pollution do not cover the current situation. Most of the contents are not even fake anymore, on the contrary, they are real and used outside of their context. That's why Wardle states that the most appropriate expression is information disorder for define this situation.(Wardle, 2019; Wardle & Derakhshan, 2017) Wardle divides information disorder into 3 sub-categories as disinformation, misinformation and malinformation, based on i) whether the content is wrong and ii) whether there is an intention to harm.

As can be seen from the Venn diagram created by Wardle, disinformation refers to the information that is created wrongly and intentionally to harm a person, social group, organization, or country. Misinformation, on the other hand, is information that is wrong but not created to harm others. For instance, false information about COVID and its treatment have been spreading around digital platforms but mostly intention of online users is to help other to know treatment methods or awareness on COVID outbreak. The third concept, malinformation, created by Wardle, refers to information that is true and used to harm a person, organization or country.(Wardle & Derakhshan, 2017, s. 21) An example is the leak of personal data of a political leader to the press.

Regardless of the types of information disorder, there are 3 elements and 3 stages. While the elements are agent, message and interpreter; the agent is involved in every step of the information chain and has various motivations. The characteristics of the agent may differ at each stage. An agent may be the

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<sup>5</sup> <https://www.cumhuriyet.com.tr/haber/suriyeli-multecilere-turkiyede-sinavsiz-universite-371816>,

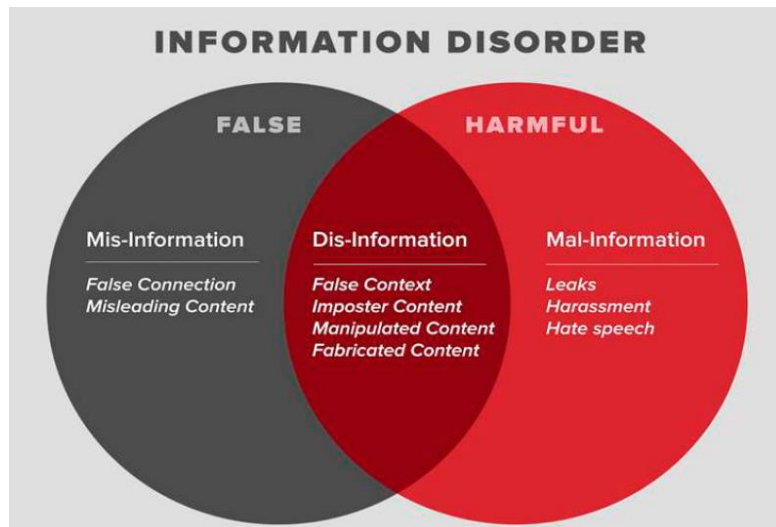
<https://www.sabah.com.tr/egitim/2013/10/24/suriyeli-siginmaci-genclere-universiteye-sinavsiz-girme-hakki>

<sup>6</sup> <https://www.youtube.com/watch?v=WaE7180SD0Y>

<sup>7</sup> <https://eksisozluk.com/suriyeli-multecilere-sinavsiz-universite-hakki--4029677>

<sup>8</sup> Dated October 5, 2013 top of the headline Posta newspaper: "" The Syrians and Egyptians to enter University without examination in Turkey"

person who created the message, or the person who saw this message and made it a media product on digital platforms, or the person who made it popular by sharing it.



*Table 1: Wardle's Venn Diagram: Types of Information Disorder*

What matters here is what kind of agent the agent is (formal such as a political party, news agency, intelligence service, or informal, such as citizen), how it is organized (such as a lobby group, individual or loosely connected community), and motivations. (political, financial, social or psychological), which target audience it wants to reach, whether there is an intention to harm or mislead.(Wardle & Derakhshan, 2017, ss. 25-27)

As a second element, the message that created, produced or disseminated by the agent, can be conveyed through agents themselves (gossip, speeches, etc.), texts (newspaper articles or brochures) or audio/visual materials (pictures, videos, edited sound clips, etc.). Messages may be inaccurately produced and disseminated using an official brand, logo or name. In addition, it can be a legal content or it may be confronted with illegal content such as hate speech, harassment, intellectual property rights violation.(Wardle & Derakhshan, 2017, ss. 39-42) The message that is created, produced and disseminated, as Wardle has mentioned, can appear in many different formats and in a highly realistic fake.

For the interpreter, as third element, Wardle states that “*audiences are very rarely passive recipients of information. An ‘audience’ is made up of many individuals, each of which interprets information according to his or her own socio-cultural status, political positions and personal experiences. ... In an era of social media, where everyone is a potential publisher, the interpreter can become the next ‘agent,’ deciding how to share and frame the message for their own networks.*”(Wardle & Derakhshan, 2017, ss. 27-28)

The message goes through 3 phases in which the agent is involved in all: creation, production and distribution. The message is created during the creation phase and becomes a media product in production. It becomes open to everyone and becomes widespread in its distribution. For example, the message is designed by an anonymous person, published in a medium, and then liked, shared and spread. The widespread message can be shared by those who use media tools with their own comments, in which case it is necessary to talk about its reproduction.(Wardle & Derakhshan, 2017, ss. 24-25) Sharing can be retweeting or sharing it on a social media account via the direct message or face-to-face communication.

Disordered information, whether created, produced or disseminated on digital platforms, traditional media tools or face-to-face communication, can become permanent in minds and create a false reality.

From whom this information is transferred, how it is consumed by whom, in which place, and whether the person was previously exposed to this information is also effective in its permanence. The source of information is important. Because people tend to share and believe unverified information obtained from those close to them. (Shah, 2020) Another factor in the spread and persistence of information disorder is the person consuming the information. While a person has a low rate of believing in knowledge that is contrary to his worldview, he can reproduce the acquired knowledge according to his worldview and stereotypes and spread it according to his own opinion. Previous experiences and cultural factors also affect information believability. (Leung, 2019; Wasserman, 2020) This situation causes an increase in disconnection from reality, especially in face-to-face communication or in the flow of information from ear to ear. (Grabmeier, 2019) Those who consume the information disorder generally believe that it affects others other than their own group. At the same time, they see themselves more sensitive to information disorder and claim that they are not easily affected. (Jang & Kim, 2018, ss. 295-299)

Another important factor is the environment where information is consumed. While it is more in question for those who consume knowledge to think critically and examine in depth when they encounter information in an academic environment, the same may not be the case with information consumed in any place in the flow of daily life. (Leung, 2019) In addition, with the passage of a certain time, the source may be forgotten and it can be assumed to be correct since the possibility of checking and confirming whether the information is correct or not disappears. Inability to question, especially in the information obtained from social media, is more common. (Tanca, 2020)

### Methodology

Qualitative method was used in this study. Students currently studying at university undergraduate level or graduates in 2016 and after are selected as the target audience. The reason for the time preference is that the news about Syrians' access to higher education started to spread in 2013-15. A semi-structured interview was preferred to enable the participants to handle the questions with certain dimensions and to provide new meanings to the research. The interviews were conducted online due to the COVID-19 outbreak. Thirty-eight participants (n = 38) are interviewed. The interviews are held between 13 July - 6 August 2020.

The age range of the participants is 20-29, and the average age is 23.36. 26 of the participants are women and 12 of them are men, 18 of them are graduates of the state university, and 20 of them are those who study or completed their education at the foundation university.

Participant	Sexuality	Age	State / Foundation
1	Female	22	Foundation University
2	Male	22	State University
3	Female	22	State University
4	Female	21	State University
5	Female	21	State University
6	Female	20	Foundation University
7	Female	22	Foundation University
8	Female	24	Foundation University
9	Female	25	Foundation University
10	Female	25	Foundation University
11	Female	24	State University
12	Male	22	State University
13	Female	21	Foundation University
14	Female	26	Foundation University



15	Female	26	Foundation University
16	Male	24	State University
17	Female	27	Foundation University
18	Female	25	Foundation University
19	Female	25	Foundation University
20	Male	25	State University
21	Female	25	Foundation University
22	Female	22	State University
23	Female	20	State University
24	Female	26	State University
25	Female	24	State University
26	Female	23	Foundation University
27	Female	23	Foundation University
28	Female	24	Foundation University
29	Male	22	Foundation University
30	Female	23	Foundation University
31	Male	24	State University
32	Male	28	State University
33	Male	29	State University
34	Male	22	State University
35	Female	22	Foundation University
36	Male	22	State University
37	Male	24	State University
38	Male	26	Foundation University

*Table 2: Information of Participants*

The questions are aimed at investigating whether they have contacted Syrians at university, the method and where they acquired the information, the content and type of information, how they interpreted the information the first time they heard it, whether they made it widespread, and whether they confirmed it with their intentions. The question of what the current information about Syrians' access to higher education is, was removed from the question list after the pre-interviews, as it is understood that the participants searched for the correct information during the online interview. The interviewees are informed about the purpose of the interviews and audio and video recording is not used to make participants feel more comfortable sharing their experiences. Interviewees are named numerically from Participant 1 to Participant 38. In the analysis of the findings, the MAXQDA.20 qualitative analysis program is used.

## Findings

### The Experience of Acquiring the Message Containing Information Disorder and the Characteristics of the Message

While 81% of the participants (n = 31) stated that they had heard general news and information about Syrians' access to higher education, all (n = 38) stated that they read, saw and / or heard the information and news regarding Syrians' access to higher education without examination, unconditional and free of charge. When the sources from which the participants acquire disordered information are examined, it is seen that the participants sometimes obtain information from more than one source, and digital platforms and face-to-face communication stand out cumulatively. While 55.36% (n = 31) stated that

they acquired from digital platforms, those who acquired it through face-to-face communication were 37.50% (n = 21).

Source of information	Number	%
Social Media	25	44,64%
Television	4	7,14%
Internet	6	10,71%
Friend	16	28,57%
Family	5	8,93%
<b>Total</b>	<b>56</b>	<b>100,00%</b>

*Table 3: Source of Information*

The content of the information obtained by the participants is mostly in the form of criticism / reaction towards the current situation (73.68% - n = 28). 94.74% (n = 18) of those who stated that they acquired the information face to face stated that the information received was in the form of reaction / criticism, while 1 participant stated that it was created for obtaining information.

### **The Interpretation of the Message Containing Information Disorder at the First Hearing**

After reviewing the answers, 13 codes were created to analyze how the information was interpreted by the participants when it was heard. The codes and their meanings are given in the table below.

Code Name	Number of Coding	Explanation
Competition	11	The idea that competition both in higher education and after graduation is increasing and they are falling behind
Blaming	2	Making accusations against Syrians
Displeasure	9	Dissatisfaction with Syrians' entry to higher education
Not Believing	8	The state of completely not believing the information obtained, denying its accuracy, assuming it is wrong
Not Feeling Bad	6	Not feeling bad about Syrians' access to higher education
Education as Aid (not as right)	6	Assistance-based assessment and justification of Syrians' access to higher education
Know about Foreign Student Exam	6	Being aware of the YÖS process beforehand
Skepticism	4	To be skeptical about the acquired knowledge, to be suspicious
Inequality	6	Assessing Syrians' access to higher education based on inequality, seeing as inequality
Qualification Comparison with Syrians	4	Comparing yourself with Syrians in terms of qualifications and considering yourself superior
Right-Based Approach	8	Assessing Syrians' access to higher education through a rights-based approach
Injustice	13	The tendency to evaluate Syrians' access to higher education as unfair, to use the concept of right
Anger	5	Anger over Syrians' access to higher education
<b>Total</b>	<b>88</b>	

*Table 4: Explanations and Usage of Interpretation Codes*

“Injustice”, “competition” and “displeasure” were the prominent codes in the expressions in which the participants conveyed what they felt and thought when they first heard. The following statement of participant 34 is an example of what was said for injustice:

*“I felt like an idiot, like an idiot. We are going to the special/private classroom for our dreams. This situation upset me; it was unfair.” (participant 34)”*

The statements of participant 15 are also examples of the competition code:

*“When the man entered without an examination, especially when there was so much unemployment, I did not like that the man gained a profession. Especially at my university in my country... When we graduate from the same university, we will carry the same university name and label. ... I was afraid that the same would happen to me in terms of work” (participant 15)*

Participant 21's statement that "a person feels bad anyway, it feels bad for someone else to have such an advantage even though you come somewhere" is one of the examples of the displeasure code.

Since the answers to each question are entered into the analysis program in separate paragraphs, the analysis is based on paragraphs. Accordingly, it comes to the forefront that the participants use the comparison more in terms of competition, displeasure, unfairness and quality. Participants used these codes more together to express what they thought and felt. For example, the statement of Participant 21 contains both the feeling of competition, displeasure and injustice together:

*“When I first heard about it, I thought if it was real then there would be injustice. Any Human Being in such a situation already feels bad, does not welcome him.” (participant 21)*

### **Dissemination of the Message by the Agent Who Obtained the Information and the Characteristics of the Disseminated Message**

Half of the participants (n = 19-50%) stated that they shared information, while the other half (n = 18-50%) stated that they did not prefer to share it. Participants who shared (n = 19) stated that they disseminated information to friends (68%), family (24%) and social media users (8%). It is remarkable that 92% of the information is shared with the close environment. It was determined that 86.36% of the sharing were made face to face, 9.09% were shared on social media, and 4.55% were sent from messaging applications.

### **The Intention of the Agents Who Disseminates or Does Not Disseminate the Message**

4 codes were created to analyze the intention behind sharing information. The codes and their meanings are given in the table below.

Codes	Number of Coding	Explanation
Competition - Staying Behind	2	Sharing the idea that by competing with Syrians and falling behind in the race for life
Expressing Injustice	10	Sharing information thinking that it is injustice
Giving Correct Information	4	Knowing and sharing correct information about Syrians' access to higher education
Asking	7	Sharing information about Syrians' access to higher education by asking
<b>Total</b>	<b>23</b>	

*Table 5: Codes for intention of Sharing Information and Their Explanation*

In general, the acceptance of injustice and the intention to express it stand out but questioning the accuracy of information or sharing information by asking is also at the forefront. However, it should be

noted that asking the accuracy of information in face-to-face conversations may not give correct results depending on the knowledge of the people to whom the problem is addressed, their prejudice, world view and the dynamics of the micro social group formed by those people.

Following sentences may be given an example for sharing done by thought of injustice:

*"I shared it, I shared it everywhere. I emphasized that this is an unfair system. I probably heard the news a year after I was preparing for university. " (participant 17)*

*"I have expressed my opinion in the conversations. I have stated that it is injustice. I have said that it is unfair for others to enter privileged while others work so hard, I shared this with my university friends. I told him because the conversation came to this topic. " (participant 3)*

When information is shared with the intention of asking, it is generally shared on whether the news is heard or what they think. Those who gave the correct information tried to remain calm and conveyed the accuracy of the information by avoiding the tension that might be revealed by those who accepted the disordered information as correct.

The 6 codes created to analyze the reason for not sharing and their explanations are as follows.

Codes	Number of Coding	Explanation
Unwillingness	2	Lack of willingness and intention to share
Accepting Normal	1	Accepting knowledge as normal
Abstain	4	To be afraid of her reaction when he/she shares information
Know True Version	5	Not sharing because of knowing the correct information
Trying not to be stigmatized	1	Anxiety about being tagged due to harsh expressions that might be exposed if they shared information
Skepticism	4	Not to share because of doubting the information
<b>Total</b>	<b>17</b>	

**Table 6: Codes for Intention of not Sharing Information and Their Explanation**

Although it is not a prominent code, knowing the truth, skepticism and abstain are at the forefront of not sharing. Those who know the truth but do not share often do not share for two reasons. The first is to avoid tension, the second is because he knows the truth and does not give importance to the relevant news or information. It was observed that those who doubted did not share it because it was an unconfirmed information. Participants hesitating to share were worried about possible discussion or emergence of their opinion on the issue. The sentences of participant 10 and participant 12 are expressions of both reservations:

*"I am in the confrontational group that always speaks to people about immigration regarding these people know wrong. I did not share the news, because if I do, it ends up tense. " (participant 10)*

*"I was afraid to share my ideas with other friends. Now I share it with people I think it makes sense. However, I currently do not prefer to share because its political issue and I'm thinking to establish a firm of which everybody can be customer. (participant 12)*

### **Confirmation and Current Belief in Information Regarding Access to Higher Education**

68.42% of the participants (n = 26) did not confirm the information and news they obtained, while 31.58% (n = 12) did. The rate of those who do not believe in current beliefs about news and information is higher (60.53% - n = 23). While 18.42% (n = 7) think they are correct currently, those who are skeptical are 21.05% (n = 8).

All the confirming participants do know the current news and information is not correct and are aware that the current news and information about Syrians' access to higher education is wrong. The rate of

disbelief is also high among those who state that they do not confirm (42.31%, n = 11). However, the rate of those who do not think they are wrong is 57.69% in total.

It was determined that the participants' contact with Syrian students at the university and making friendships did not have a permanent effect on current beliefs and was insufficient in reversing the information disorder, but confirming it provided permanent access to correct information.

### **Result: Holistic Evaluation**

All the participants have heard, read and seen the news and information about Syrians' unconditional, free access to higher education. While the information is mostly obtained through social media and face-to-face communication, most of the participants stated that this information is reactive and critical, and most of the information obtained is text-based or face-to-face. When the participants first heard the information, it was determined that regardless of whether they believe the information is correct or not, they think it is unfair, they will fall behind in the competition and they are not satisfied with this situation.

While the disordered information obtained is shared more with friends, face-to-face sharing is by far the leading type of sharing. The intention of the participants in sharing the information was to express the injustice and ask whether the information was correct or heard. On the other hand, those who did not share avoided sharing because they knew the truth, doubted or feared.

When the map of all codings is examined, each code has singular relationships with another code. However, the general evaluation was made on the prominent factors. It is observed that the codes of "not believing" and "YÖS process" in interpreting distorted information about Syrians' access to higher education and "giving the right information" for sharing and "knowing the truth" for not sharing are clustered relatively close to each other. It is seen that the participants who do not believe in the correctness of the disordered information and are aware of the YÖS process share more accurate information, and if they do not share, they prefer not to share even to deny the news because they know the correct information. The positioning of the code of "expressing injustice" indicates that the participants who want to express the injustice they think they have been subjected to feel unfair when they first hear the disordered information, they are worried about falling behind in competition, are not satisfied and angry. The "asking for information" code is more related to the "education as aid", "competition" and "disbelief" codes. This means that the participants who asked whether the information was correct or heard, had different thoughts when the disordered information was first heard.

The confirmation reflex is low. Participants who currently think that the news is wrong is singularly higher than those who find it true and have doubts. All of the confirming participants know that the currently disordered information regarding access to Higher Education is incorrect. It has been determined that affirmation enables the discovery and retention of accurate information in a more permanent way than contacting Syrian students at university and making friends.

The majority of the participants could not specifically state the source from which they heard distorted information. The constant repetition of information in different media and the consumption of information in a completely non-academic environment caused the resource to be forgotten.

In summary, it was seen that the participants were among the elements of disordered information as agents and interpreters, and they exist as agents in the phases of media product and distribution.

### **REFERENCES**

- Donovan, J. (2020). The Lifecycle of Media Manipulation. *DataJournalism*.  
<https://datajournalism.com/read/handbook/verification-3/investigating-disinformation-and-media-manipulation/the-lifecycle-of-media-manipulation>
- Grabmeier, J. (2019, Aralık 9). You Create Your Own False Information, Study Finds. *Phys.Org*.  
<https://phys.org/news/2019-12-false.html>

- Jang, S. M., & Kim, J. K. (2018). Third Person Effects of Fake News: Fake News Regulation and Media Literacy Interventions. *Computers in Human Behavior*, 80, 295-302.
- Leung, W. (2019, Ekim 14). How do Our Brains Fall for Disinformation? *Theglobeandmail*. [https://www.theglobeandmail.com/canada/article-how-do-our-brains-fall-for-disinformation/?utm\\_source=First+Draft+Subscribers&utm\\_campaign=75c6daaad4-EMAIL\\_CAMPAIGN\\_2019\\_09\\_10\\_11\\_59\\_COPY\\_01&utm\\_medium=email&utm\\_term=0\\_2f24949eb0-75c6daaad4-264028861&mc\\_cid=75c6daaad4](https://www.theglobeandmail.com/canada/article-how-do-our-brains-fall-for-disinformation/?utm_source=First+Draft+Subscribers&utm_campaign=75c6daaad4-EMAIL_CAMPAIGN_2019_09_10_11_59_COPY_01&utm_medium=email&utm_term=0_2f24949eb0-75c6daaad4-264028861&mc_cid=75c6daaad4)
- Shah, K. (2020, Haziran 16). When Your Family Spreads Misinformation. *The Atlantic*. <https://www.theatlantic.com/family/archive/2020/06/when-family-members-spread-coronavirus-misinformation/613129/>
- Tanca, K. E. (2020, Mart 14). Araştırma: Kimler Yanlış Bilgiye İnanmaya Daha Yatkın? *Teyit.org*. <https://teyit.org/arastirma-kimler-yanlis-bilgiye-inanmaya-daha-yatkin/>
- Vosoughi, S., Roy, D., & Aral, S. (2018). The Spread of True and False News Online. *Science*, 359, 1146-1151.
- Wardle, C. (2019). *Understanding Information Disorder* (s. 32). First Draft.
- Wardle, C., & Derakhshan, H. (2017). *Information Disorder: Toward an Interdisciplinary Framework for Research and Policy Making* (Council of Europe Report DGI(2017)09; s. 110). Council of Europe.
- Wasserman, H. (2020, Temmuz 5). Cultural Factors are Behind Disinformation Pandemic: Why This Matters? *The Conversation*. <https://theconversation.com/cultural-factors-are-behind-disinformation-pandemic-why-this-matters-141884>

## IMPACT OF COVID-19 PANDEMIC AND LOCKDOWN ON THE MICROFINANCE BENEFICIARIES

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### ABSTRACT

With the sudden rise in Covid-19 disease from Wuhan, Hubei province of China since December 2019, the whole world is facing the plight of massive transmission and loss of lives. To fight the perils of the disease the Indian government called for a complete lockdown in the country since March 24, 2020. All the sectors were highly impacted due to the pandemic and lockdown, and microfinance sector is no exception to that. The microfinance beneficiaries who are mostly dependent on their daily and weekly earnings were disrupted and were at loss of work. Despite the 3 months loan waiver announced by the Reserve Bank of India the beneficiaries are still struggling to pay off their dues which has impacted the microfinance lenders as well. This study focuses on the impact of the pandemic and lockdown on the income, expenditure, savings and loan repayment of the microfinance beneficiaries with a before and after approach.

**Keywords:** Covid-19, Lockdown, Microfinance.

### Introduction

Towards the end of the year 2019 in December there was sudden rise in pneumonia like cases in the Wuhan district of Hubei province in China (Wang, Horby, Hayden, & Gao, 2020). This disease with symptoms like fever, dry cough and tiredness novel beta corona virus or SARS COV-2 (2019-n COV). Corona virus is not completely new in existence because other similar viruses like MERS-COV (causing Middle East Respiratory Syndrome) and SARS-COV (causing Severe Acute Respiratory Syndrome) are known to cause illness in human as well as animals (WHO, 2019). Initially 41 patients were admitted in the hospital; with similar symptoms and were tested positive for 2019 n-CoV infections. All the patients were found to have been in exposure of the Hunan fish market which was marked as the origin of the transmission of the disease (Huang, et al., 2020).

After China, soon the disease spread to Thailand, US, Nepal, France, Australia, Malaysia, Singapore, South Korea, Vietnam and Taiwan which was mostly by air travel. Soon the whole world had reports of 2019 n-CoV cases (Alzazeera, 2020). WHO had declared the coronavirus disease a public health emergency of highest concern by January 2020 due to the massive transmission of the disease in china (7736) and world (7834) and about 170 deaths in China (WHO, 2020). And finally Covid-19 was declared a global pandemic on March 11, 2020 by the Director General Dr. Tedros Adhanom Ghebreyesus with about 118,000 cases reported from 114 countries, and 4291 deaths (WHO Europe, 2020). By April 4<sup>th</sup> the whole world registered a million cases with 50,000 deaths (WHO Coronavirus disease 2019 (COVID-19) Situation Report 75, 2020). Currently the number of Covid-19 cases all over the world (216 countries) is 36,827,187 with 8,051,766 active cases and 1,067,962 deaths (worldometer, 2020).

India ranks second highest in the worst effected countries in the world after USA with a total of 6,906,151 cases and 106,521 deaths. The first case in India was detected in the state of Kerala towards the end of January (www.cnbc.com). Due to the religious congregation called Tablighi Jamaat

organized in New Delhi towards the end of February which had people from different countries around the world, there was sudden rise in the number of positive cases in India. This event came to be known as the virus super spreader and the cause for the spread of disease in countries like Indonesia and Malaysia (www.bbc.com). After this incident, due to the massive outbreak of novel corona virus throughout India on 24th March, 2020 the Prime minister of India announced a complete lockdown in the Country from 25<sup>th</sup> March to deal with the spread of the pandemic (GoI, 2020). Due to the lockdown the growth in the number of cases slowed but the economy of the country had to suffer the hit of the lockdown. The pandemic lead to perils of the human race and the lockdown led to the human tragedy. The lives and the income and employment of the people were affected along with all aspects of life like social, economic, political and cultural

The impact of the Covid-19 pandemic and the Lockdown are multi-sectoral in the country. The tourism sector, the crafts sector, the agricultural sector was the severely hit by the pandemic (Unesco, 2020). The sectors like aviation, retail, health, banking and all other manufacturing and service sectors were affected by the Pandemic and the lockdown (Choudhury, Sodani, & Das, 2020) . The microfinance sector is also no exception to the perils of the pandemic and lockdown in India.

### **Microfinance Scenerio**

The microfinance industry is growing at a rapid rate all over the world and currently is worth over Rs. 8.90 trillion with growing rates of loans provided to the needy. Over the year's microfinance has transformed lives of many and has reached a total of 139.9 million borrowers worldwide. Most of these borrowers nearly 80% are women and 65% of the borrowers belong to the rural background (Microfinance Barometer, 2019).

The microfinance sector in India is very diverse and is one of the most profit-making sectors in the economy. In the recent years the banking industry in India has undergone great changes and one of the significant reasons is microfinance because of the innovative and unique lending and saving schemes (Industry Outlook Microfinance Institutions, 2020). Legally the microfinance institution covers the NBFC-MFI and NGO-MFI but there also other organizations like commercial banks, co-operative banks, Small finance banks and Regional Rural Banks that are engaged in the business of providing micro credit, micro insurance, micro savings and many more. Though there are so many players in the microfinance lending scenario the industry is growing many folds due to the large number of low-income households and population in the country. The microfinance dealings in India mostly happen through the SHG (Self-Help Group)-Bank Linkage Programme where the Banks provide loans to the members of the SHGs, but the liability of the loan lies on the Group as a whole. Microfinance institution has been a common go to source of credit for the women in India to improve their sources of livelihood.

When the Covid-19 pandemic arrived in India through an air traveler, the government was swift to take decisions and declared a nationwide complete lockdown for a period of 21 days from 25<sup>th</sup> March 2020. Further it was extended till May 31<sup>st</sup>. the whole country came to a standstill; all the businesses, offices apart from those related to emergency needs were closed including grocery stores and markets. Majority of the people went out of business and are still thriving to pull themselves back. The microfinance providers mostly focus on the low-income group and provide them micro loans. The microfinance beneficiaries had to face the plight of the pandemic and lockdown. These beneficiaries who are engaged in small businesses, own stores, rear livestock or are engaged in household work went out of their regular income. Not only the poor also the well-to-do population was impacted by the lockdown. The lack of regular income burdened the microfinance beneficiaries with the incapability to repay their loans which directly impacted the microfinance institutions. The Reserve Bank of India (RBI) announced that the



commercial banks (including regional rural banks, small finance banks and local area banks), co-operative banks, all-India Financial Institutions, and NBFCs (including housing finance companies and micro-finance institutions) (“lending institutions”) were being permitted to allow a moratorium of three months on payment of installments in respect of all term loans outstanding as on March 1, 2020(rbi.org.in). This proved to be some relief to the microfinance beneficiaries, but the repayment of loans still seems tough for them.

### **Literature Review**

Microfinance refers to small scale financial services generally provided to the poor people those who are un-bankable or have no access to credit from financial institutions due to lack of collateral (Otero, 1999) (Ledgerwood, 1999) (Robinson, 2001). Any financial institution or microfinance provider; formal or informal; providing microcredit, micro savings or micro insurance or allied services to alleviate poverty and promote economic and social opportunity is a Microfinance Institution. Informal microfinance providers include pawnbrokers, moneylenders and credit associations (Ledgerwood, 1999). In India financial institution or organization like Commercial banks, Regional Rural Banks, Cooperative Societies, Credit Unions, Small Finance Banks, NBFC-MFIs (Non-Bank Financial Corporation) etc. are known as the microfinance institutions which provide small financial services to the low income population. Generally, the term microfinance in the present world refers to the institutions providing microfinance with the legal status of NBFC-MFI, NGO-MFI. But for this study we will focus on all kinds of formal financial institutions providing microfinance facilities.

Covid-19 and lockdown are one of the greatest reasons for the set back of different manufacturing and service industries in the country. But the impact is diverse and effects every individual all throughout the world. It has impacted the income, expenditure, savings and also food security of the well-to-do and also the farmers in the country (Ceballos, Kannan, & Kramer, 2020). All the sectors of the economy – primary, secondary and tertiary were impacted by the pandemic and sudden lockdown. (M., et al., 2020)

The impact of Covid-19 is so harsh that two-thirds of the respondents claimed complete shutdown of livelihood. Due to no savings the families had to survive on a single meal per day and had to depend on neighbors and home grown food for survival (Graham, Tevosyan, & Spiro, 2020).

Covid-19 led to restrictions in movement and gatherings which is another problem for the microfinance industry as it is based on group-based approach. The pandemic brought about a threat both to the microfinance group gatherings and to the field staff from the microfinance organizations which will severely impact the dealings between the institutions and the borrowers. The microfinance sector needs specific measures to move through the pandemic crisis (How Coronavirus affects Microfinance sector, 2020).

The impact of Covid-19 pandemic has posed a challenge to the microfinance institutions in different countries with mature microfinance industries, especially the low-income countries. In a study conducted by Malik. et. al. (2020) in Pakistan of about 100 micro enterprise owners and 200 loan officers and regulators and representatives state that the sales and income fell by 90% and nearly 70% of the borrowers were unable to repay the loans in April 2020. This clearly states Covid-19 poses a threat to the microfinance industry.

80% of the MFIs have concerns regarding sustainability and losses because of the client’s inability to repay the loans and meet their commitments. Due to the negative impacts of the Covid-19 Pandemic the MFIs have to make some changes to the lending policies and approaches to cope up with situation (The Impact of COVID-19 to the Microfinance Sector in Rwanda, 2020).

## **Objective**

The objectives of the study are as follows: -

To study the impact of Covid-19 and lockdown on the income, expenditure and savings of the microfinance beneficiaries.

To study the impact of Covid-19 and lockdown on loan repayment tendency of the microfinance beneficiaries.

## **Methodology**

This study was mostly based on primary data which was collected from microfinance beneficiaries from Kamrup (Metropolitan) district of the state of Assam in India. Microfinance sector in the eastern and north eastern part of India where the state of Assam lies; is one of the potential growth market for the microfinance industry in future and nearly 71% of the microfinance institute believe that (Vision of Microfinance in India, 2019). The study includes the microfinance beneficiaries from the rural areas especially the individuals who have taken loans from any type of microfinance organization. The microfinance beneficiaries are mostly women as the loans are dispatched through self-help groups which consists of 10-20 members, so the respondents of the study are all female/women. This district was selected for the study because in the state of Assam this district happens to have one of the highest positive Covid-19 cases i.e. 20663 out of a total 1,92,416 cases in Assam (Covid19.assam.gov.in). Moreover, further district lockdown was imposed by the district authorities to avoid the massive spread. The secondary data for the study was collected from journals, periodicals, new articles, reports and websites.

The sample size of the study is 100. For the study, data was collected by means of a questionnaire. The questions were directly asked to the microfinance beneficiaries through phone survey. One-point survey method was used where the respondents were asked to answer about their income, expenditure, savings and loan repayments prior to the lockdown and after lockdown was imposed.

For the before data, the beneficiaries were asked about their annual income prior to Covid-19 pandemic and in order to find the monthly income we calculated by dividing the annual income by 12 months. To find the after Covid-19 and lockdown data, the monthly income of all the beneficiaries were taken for a period of three months from March 24-June 24<sup>th</sup>, 2020 and divided the total by 3 months to arrive at the average monthly income of the microfinance beneficiaries. Similarly, the average monthly expenditure was calculated for before and after the pandemic and lockdown. The average monthly savings was calculated from the average monthly income and expenditure by deducting the latter from the prior. Convenient sampling was used to select the respondents as it was not possible to reach the microfinance beneficiaries amidst the pandemic. Appropriate statistical tools are applied to analyze and present the data.

## **Analysis and Interpretation**

### **Demographic Profile of The Microfinance Beneficiaries**

The demographic factors like age, education, occupation, marital status and number of members in the family are shown below:

*Table 1: Demographic Profile of microfinance beneficiaries based on Age*

Age (in years)	No. of Respondents
18-28	13
29-38	16
39-48	36
49-58	28
59-68	7

The age of the microfinance beneficiaries ranges from 18 years to 68 years. 13% of the microfinance beneficiaries belong to the 18-28 years age group. 16% beneficiaries belong the 29-38 age group and majority of the microfinance beneficiaries i.e. 36% belong to the 39-48 years age group. 28% beneficiaries belong to the 49-58 age group and only 7% belong to the highest age range of 59-68 years. The mean age of the microfinance beneficiaries is 43.43 years.

*Table 2: Demographic Profile of microfinance beneficiaries based on Education*

Education	No. of Respondents
Illiterate	9
Primary education	20
High school/ Intermediate	37
Graduate	14
Postgraduate	5
Technical education/ Diploma	15

The educational qualification of the microfinance beneficiaries shows that 9% of the respondents have no kind of formal education, 20% of the beneficiaries have primary education and majority of the beneficiaries i.e. 37% have attended or passed high school or intermediate. 14% microfinance beneficiaries are graduate, and 15% beneficiaries have technical education or diploma and only 5% of the beneficiaries which is the least number of beneficiaries have a post graduate degree.

*Table 3: Demographic Profile of microfinance beneficiaries based on Occupation*

Occupation	No. of Respondents
Service	13
Business	39
Housewife	48

Majority of the microfinance beneficiaries i.e. 48% are housewives, 13% are engaged in service and 39% run business in the locality. These businesses mostly comprise of retail shops, hotels and tailoring stores.

**Table 4: Demographic Profile of microfinance beneficiaries based on marital status**

Marital status	No. of Respondents
Married	48
Unmarried	41
Others	11

Majority of the microfinance beneficiaries are married which is 48%. 41% of the microfinance beneficiaries are unmarried and 11% belong to the other category which is either divorced, widowed or living separately.

**Table 5: Demographic Profile of microfinance beneficiaries based on number of members in Family**

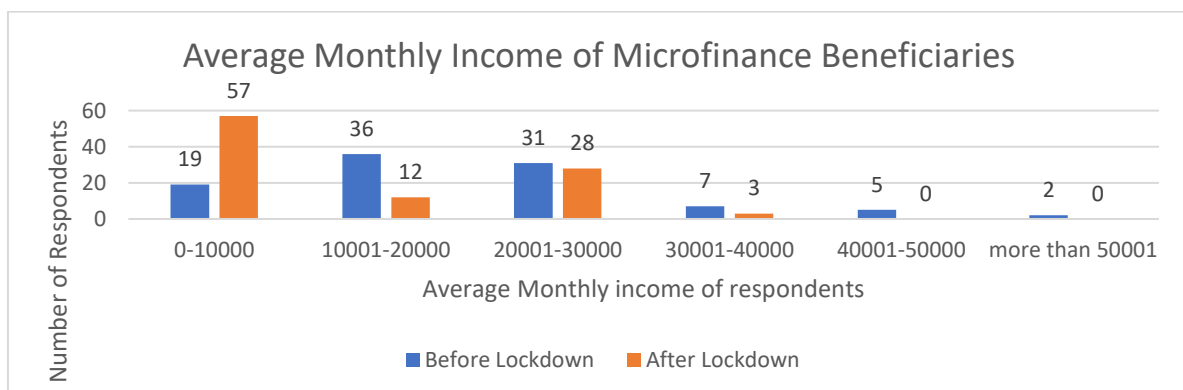
No. of members in family	No of Respondents
0-4	31
5-8	55
9-12	11
13-16	3

31% of the microfinance beneficiaries have a small family with the size of 0-4 members. Majority of the microfinance beneficiaries i.e. 55% belong to a family with 5-8 members and 11% of the beneficiaries have a family size of 9-12 members. And only 3% of the beneficiaries have a large family of 13-16 members. The mean size of the number of family members is 5.78.

### Income, Expenditure and Savings of Microfinance Beneficiaries.

Because of the lockdown imposed in the country, the microfinance beneficiaries reported the effect on their income. Most of the beneficiaries depend on their daily or weekly income and meet their need through this income. The lockdown led to their loss of work and income.

### Average Monthly Income of the Microfinance Beneficiaries before and after Lockdown



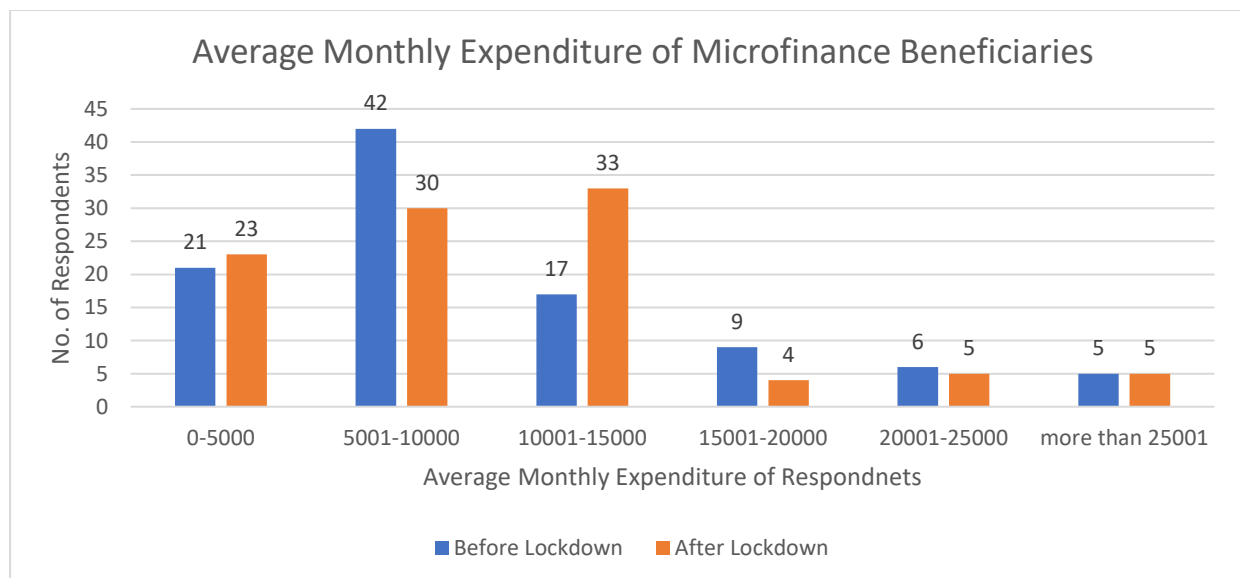
**Figure: 1** Average Monthly Income of Microfinance Beneficiaries

From the study it is seen that before lockdown the average monthly income of Rs 0 to Rs 10,000 was earned by 19% microfinance beneficiaries under the study. Majority of the microfinance beneficiaries under the study i.e. 36% reported to earn an average monthly income of Rs 10,001 to Rs 20,000. The average monthly income of 31% of the microfinance beneficiaries were Rs 20,001 to Rs 30,000, whereas, 7% microfinance beneficiaries earned an average monthly income of Rs 30,001 to Rs 40,000. 5% microfinance beneficiaries earned an average monthly income of Rs 40,001 and Rs 50,000 and only 2% microfinance beneficiaries earned average monthly income more than Rs 50,000.

On the other hand, after lockdown it was observed that majority of the microfinance beneficiaries under the study i.e. 57 % earned the least amount of average monthly income of Rs 0 to Rs 10,000. 12% of the microfinance beneficiaries claimed to earn an average monthly income of Rs 10,001 to Rs 20,000 and 28% microfinance beneficiaries earned Rs 20,001 to Rs 30,000. Whereas only 3% of the microfinance beneficiaries earned an average monthly income of Rs 30,001 to Rs 40,000 as shown in figure 1.

This clearly states that the average monthly income of the microfinance beneficiaries has declined after Covid-19 pandemic and Lockdown. Moreover, the total average monthly income of the microfinance beneficiaries before the lockdown as reported by them is Rs. 20,83,500 and the total average monthly income after lockdown was imposed came down to Rs. 10,19,800. The decrease in the total average monthly income is Rs. 10,63,700 and the percentage decrease in average monthly income is 51.05% which is very significant.

#### Average Monthly Expenditure of the Microfinance Beneficiaries before and After Lockdown



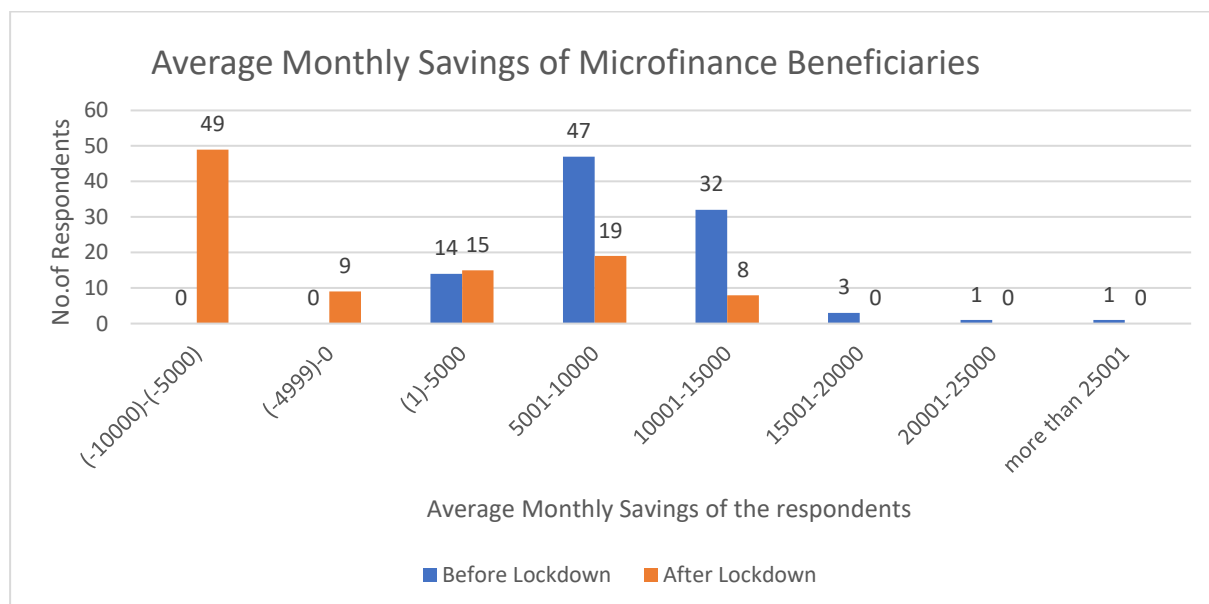
**Figure 2:** Average Monthly Expenditure of Microfinance Beneficiaries

From the study it is found that before lockdown that the average monthly expenditure of 21% microfinance beneficiaries were Rs 0 to Rs 5,000. Majority of the microfinance beneficiaries under the study i.e. 42% had average monthly expenditure of Rs 5,001 to Rs 10,000. The average monthly expenditure of 17% of the microfinance beneficiaries were Rs 10,001 to Rs 15,000, whereas 9% microfinance beneficiaries had an average monthly expenditure of Rs 15,001 to Rs 20,000 and 6% of the microfinance beneficiaries had an average monthly expenditure of Rs 20,001 and Rs 25,000 as shown in figure 2. The least number of microfinance beneficiaries i.e. 5% had the maximum average monthly expenditure of more than Rs 25,000.

On the other hand, after lockdown was imposed, it is observed that 23% of the microfinance beneficiaries had an average monthly expenditure of Rs 0 to Rs 5,000. 30% of the microfinance beneficiaries reported to have an average monthly expenditure of Rs 5,001 to Rs 10,000 and for 33% of the microfinance beneficiaries it was Rs 10,001 to Rs 15,000. 4% of the microfinance beneficiaries spent an average monthly expenditure of Rs 15,001 to Rs 20,000 and 5% microfinance beneficiaries had an average monthly expenditure of Rs 20,001 and Rs 25,000 and more than Rs 25,000 respectively.

It is clear from the study that the expenditure of the microfinance beneficiaries after lockdown was imposed almost remained same or increased to some extent as people had to buy and store food and goods for the long-term lockdown. Total average monthly expenditure of the microfinance beneficiaries before lockdown is Rs. 10,92,300 and the total average monthly expenditure after lockdown is Rs. 11,13,000. There has been an increase in the total average monthly expenditure of the beneficiaries of about Rs. 21,100 and the percentage increase in average monthly expenditure is 1.93%.

### Average Monthly Savings of Microfinance Beneficiaries before and after Lockdown



**Figure 3:** Average Monthly Savings of Microfinance Beneficiaries

Savings in general refers to the income not spent on consumption expenditure. So, savings is directly dependent on Income and expenditure (Curtis and Irvin, 2019). The savings was calculated by deducting the average monthly expenditure from the average monthly income of the microfinance beneficiaries.

The figure 3 shows that the average monthly savings of the microfinance beneficiaries were quite positive before lockdown. 14% of the microfinance beneficiaries have an average monthly savings of Rs. 1-5000. Majority of the microfinance beneficiaries under the study i.e. 47% had an average monthly savings of Rs 5001-10000. 32% microfinance beneficiaries saved Rs. 10001-15000 and 3% showed an average monthly savings of Rs. 15001-20000. 1% microfinance beneficiaries showed an average monthly savings of Rs. 20001-25000 and more than Rs. 25000 respectively.

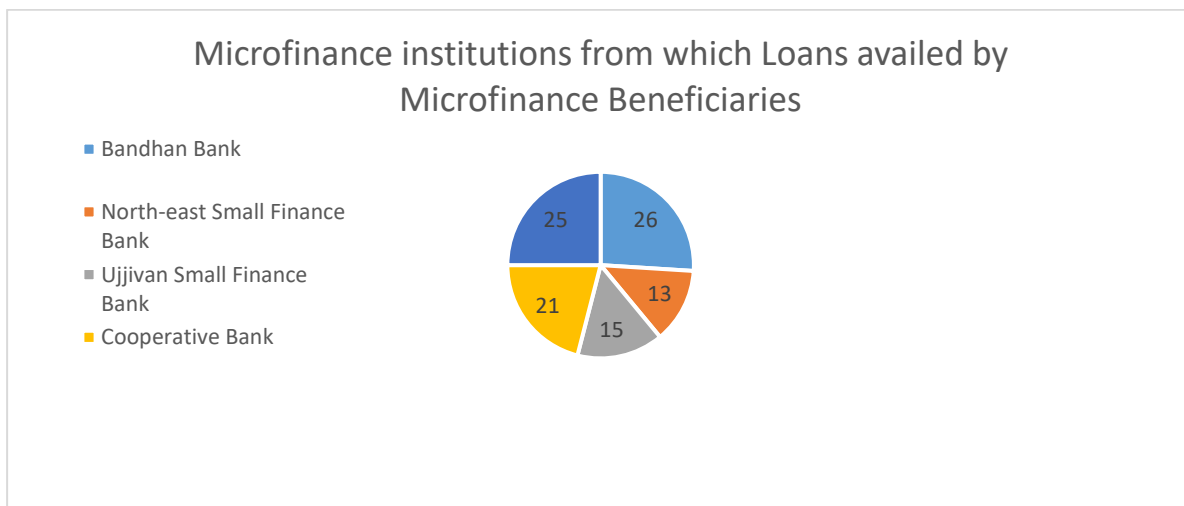
After Lockdown was imposed as we already stated that the income of the microfinance beneficiaries had fallen, and the expenditures had increased so it is bound to affect the savings of the beneficiaries. The figure 3 clearly states that majority of the microfinance beneficiaries i.e. 49% have Rs. (-10000) -(-5000) average monthly savings and another 9% microfinance beneficiaries show negative average monthly savings amount of Rs (-4999) to Rs 0. 15% and 19% microfinance beneficiaries have an

average monthly savings of Rs. 1-5000 and Rs. 5001-10000 respectively. Only 8% of the microfinance beneficiaries reported to have the maximum amount of average monthly savings i.e. Rs. 10001-15000.

The study clearly states that the savings of the microfinance beneficiaries have been hardly hit by the Covid-19 pandemic. When the savings are on the negative side the beneficiaries are forced to live on past savings, borrow from friends and family or even sell assets.

### Loan Repayment of Microfinance Beneficiaries

The microfinance beneficiaries under the study have availed loans from various microfinance organizations and the figure below shows the same.



**Figure 4:** Microfinance Institution from which loans availed by Microfinance beneficiaries.

Majority of the microfinance beneficiaries i.e. 26% have borrowed from Bandhan bank which happens to be one of the leading microfinance institutions in the country. The journey of Bandhan from an NBFC-MFI to a Commercial Bank is commendable. 25% of the beneficiaries have borrowed from Regional Rural banks and 21% have borrowed from North-east Small Finance Bank. 15% beneficiaries have availed loans from Ujjivan small Finance Bank and only 13% have availed loans from Cooperative banks.

**Table 6-Loan amount availed by the Microfinance beneficiaries**

Loan amount availed	No of Respondents
0-50000	32
50001-100000	36
100001-150000	20
150001-200000	8
200001-250000	4

The microfinance beneficiaries under the study have availed loans ranging from Rs. 30000 to Rs. 250000. The beneficiaries have availed loans for a period of one year or two years. Majority of the beneficiaries i.e. 36% have availed loans of Rs. 50,001-1,00,000. 32% of the beneficiaries have availed loans of amount Rs. 0-50,000 and 20% beneficiaries have availed Rs. 1,00,001-1,50,000 loans. Only 8% and 4% microfinance beneficiaries have availed loans amounting to Rs. 150001-200000 and Rs. 200001-250000 respectively. The mean of the loan amount availed is Rs. 83000.34. All the microfinance

beneficiaries reported that they need to repay the loans on a weekly basis. The following table shows the monthly repayment amounts to be made by the microfinance beneficiaries.

*Table 7-Loan Repayment amount for the microfinance beneficiaries*

Monthly Loan Repayment Amount	No. of Respondents
0-2500	13
2501-5000	36
5001-7500	24
7501-10000	16
10001-12500	8
12501-15000	3

Based on the amount of loans availed by the microfinance beneficiaries the amount of loan repayment is on the weekly basis for all the beneficiaries. To find out the monthly loan repayment amount we have multiplied the amount by 4. 13% of the microfinance beneficiaries repay Rs. 0-2500 every month. Majority of the microfinance beneficiaries i.e. 36% make a loan repayment of Rs. 2501-5000 every month and 24% beneficiaries repay Rs. 5001-7500 per month. 16% of the beneficiaries repay Rs. 7501-10000, 8% pay Rs. 10001-12500 and only 3% of the microfinance beneficiaries repay Rs. 12501-15000 against their loans. The mean of monthly loan repayment amount of the microfinance beneficiaries is Rs. 5725.43.

Before the Covid-19 disease knocked in and the lockdown was imposed the microfinance beneficiaries were engaged in their regular activities and had a steady source of income. But after the lockdown was imposed, they were forced to keep their businesses closed and went out of income. They were mostly surviving on the earlier savings they had or had to borrow from friends and neighbors. Many of them sold their assets and livestock to meet their daily needs. Loan repayment during these times were tough. Only the service holders had the ability to repay the loans and it was seen that nearly 68% of the microfinance beneficiaries were not capable to repay their loans. But nearly 71% of the beneficiaries opted to defer the loan repayment after the RBI guidelines regarding moratorium period was issued.

### **Conclusion**

The impact of the pandemic and lockdown is a cause of concern for both the microfinance institutions and their clients. Undoubtedly the loan portfolios and liquidity of the microfinance institutions are effected but there must be proper mapping and planning in response to the crisis (Zetterly, 2020). Amidst the crisis it is a challenge to the policy makers and the regulators to cater to the needs of the microfinance providers as well as the beneficiaries (Meagher, 2020). The impact of the pandemic is very evident, and it is not going away soon. The income, expenditure and savings of the microfinance beneficiaries are highly impacted due to the lockdown which has directly impacted their ability to repay the loans. Though the Central bank of India (RBI) has offered some relief by proving a moratorium period for 3 months initially and further extending it by 3 months, the microfinance institutions should also show some leniency towards the borrowers. Moreover, in view of the Covid-19 transmissions it is better for the microfinance organizations to adhere to remote digital channels and upgrade their game to easily reach their borrowers.

There is no doubt that the survival of the microfinance sector is in difficulty, but in this period of uncertainty, combined efforts of the regulatory bodies, policy makers and microfinance leaders is



necessary to develop a strategy to gear up against the crisis and rescue the microfinance borrowers and lenders from distress.

## REFERENCES

- Alzazeera*. (2020, September 20). Retrieved October 8, 2020, from [www.aljazeera.com](http://www.aljazeera.com):  
<https://www.aljazeera.com/news/2020/9/20/timeline-how-the-new-coronavirus-spread>
- Ceballos, F., KAnnan, S., & Kramer, B. (2020). Impacts of a national lockdown on smallholder farmers' income and food security: Empirical evidence from two states in India. *World Development*. doi:<https://doi.org/10.1016/j.worlddev.2020.105069>
- Choudhury, M., Sodani, P. R., & Das, S. (2020). Effect of Covid-19 on economy of India - Some Reflections for Policy and Programme. *Journal of Health Management*, 22(2), 169-180.
- GoI. (2020, March 24). Order no 40-3/2020-DM-I(A). *Ministry of Home affairs*. Government of India.
- Graham, S., Tevosyan, A., & Spiro, S. (2020). *The Impact of COVID on Microfinance Customers*. FINCA. Retrieved from <https://www.fincaimpact.com/news-insights/the-voices-of-covid19-microfinance-customers/>
- (2020, march). *How Coronavirus affects Microfinance sector*. Grameen Credit Agricole Foundation, Paris.
- Huang, C., Wang, Y., Li, X., Ren, L., Zhao, J., Hu, Y., . . . Gao. (2020, January 24). Clinical features of patients infected with 2019 novel coronavirus in Wuhan China. *Lancet*(395), 497-506.
- (2020). *Industry Outlook Microfinance Institutions*. Infomerics Valuation and Ratings Private Limited.
- Ledgerwood, J. (1999). *Sustainable Banking with the Poor, Microfinance Hand Book- an Institutional and Financial Perspective*. WashingtonD.C: IBRD/WB.
- M., S. K., Maheshwari, V., Prabhu, J., Prasanna, M., Jayalakshmi, P., Suganya, P., . . . Jothikumar, R. (2020). Socio economic impact of covid 19 outbreak in India. *International Journal of Pervasive Computing and Communications*, 16(4), 309-319.
- Meagher, P. (2020). *Microfinance in the COVID-19 Crisis:A Framework for Regulatory Responses*. CGAP.
- Otero, M. (1999). Bringing development back into microfinance. *Journal of Microfinance*.
- Robinson, M. S. (2001). *Microfinance Revolution- Sustainable Finance for the Poor*. IBRD/WORLD BANK.
- (2020). *The Impact of COVID-19 to the Microfinance Sector in Rwanda*. Access to finance Rwanda (AFR), Association of Microfinance Rwanda (AMIR).
- Unesco*. (2020, May 12). Retrieved from Impact Assessment Study of Covid-19 on the Creative Sector: <https://en.unesco.org/news/impact-assessment-study-covid-19-creative-sector>
- (2019). *Vision of Microfinance in India*. PWC- SIDBI.
- Wang, C., Horby, P. W., Hayden, F. G., & Gao, G. F. (2020). A novel coronavirus outbreak of global health concern. *Lancet*, 497-514.
- WHO*. (2020, JANuary 30). Retrieved from [www.who.int: https://www.who.int/dg/speeches/detail/who-director-general-s-statement-on-ihr-emergency-committee-on-novel-coronavirus-\(2019-ncov\)](https://www.who.int/dg/speeches/detail/who-director-general-s-statement-on-ihr-emergency-committee-on-novel-coronavirus-(2019-ncov))
- (2020). *WHO Coronavirus disease 2019 (COVID-19) Situation Report 75*. WHO.

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*WHO Europe.* (2020). Retrieved from euro.who.int: <https://www.euro.who.int/en/health-topics/health-emergencies/coronavirus-covid-19/novel-coronavirus-2019-ncov>

*worldometer.* (2020, october 9). Retrieved from <https://www.worldometers.info/coronavirus/>

Zetterly, P. (2020). *Four Ways Microfinance Institutions Are Responding to COVID-19*. CGAP.

## HOW NASCENT ENTREPRENEURS DIFFER?: THE USE OF SMITH'S ENTREPRENEURIAL TYPOLOGY

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### ABSTRACT

In recent years, entrepreneurship has been considered to be a prominent phenomenon across the globe due to its significant role in the economy. Governments have been supporting the entrepreneurial ecosystem through entrepreneurial programs and by subsidizing funds to start-ups and nascent entrepreneurs. Despite the opportunity to increase the effectiveness of financial support by taking different entrepreneur types into account, research based on entrepreneurial typologies and financial support have received less attention in practice. Discussions of entrepreneurial typologies exist in a number of sources. However, there is a limited number of academic studies in Turkish literature associated with entrepreneurial type. In addition, few studies have examined the role of entrepreneurial typologies in Turkey. Hence, there is no common framework in the literature about the basic characteristics of entrepreneurs in Turkey. From this point forth, the aim of this study is to determine the entrepreneurial types of nascent entrepreneurs, who are attendees of a KOSGEB training program in Adana. Following Smith's entrepreneurial typology, data was gathered by survey method from 148 nascent entrepreneurs. The results showed that participants of this study are in the opportunistic entrepreneur direction, rather than the craftsman entrepreneur direction. This result may arise from the fact that the sample consisted of participants who are well aware of and are seeking support for their entrepreneurial efforts. These are the attributes directly associated with the opportunistic entrepreneur type. The findings of the study are hoped to contribute to the literature and be beneficial for the policymakers, particularly KOSGEB, for a better understanding of entrepreneurship types of nascent entrepreneurs.

**Keywords:** Entrepreneurial typology, opportunistic entrepreneur, craftsman entrepreneur, nascent entrepreneurs

### Introduction

In recent years, entrepreneurship has been considered to be a prominent phenomenon across the globe due to its significant role in the economy. In Turkey, for instance, small and medium-sized enterprises provided 73.5% of the employment and 62% of the annual sales volume by the year 2014 (TurkStat, 2016). Along with economic prosperity, entrepreneurial efforts boost the innovation capability of countries. The establishment of new enterprises creates new jobs, increases public welfare and standards of living. Hence, in line with other developing countries, entrepreneurship efforts are valued and supported in Turkey.

The government of Turkey engages in efforts to support the entrepreneurial ecosystem, eliminate existing barriers, and provide funds to re-design and re-establish the entrepreneurship culture in Turkey. In addition, the Turkish government has been supporting the entrepreneurial ecosystem through entrepreneurial programs and courses by subsidizing funds to start-ups and nascent entrepreneurs (Yaman, 2018: 5). In this line, KOSGEB (Small and Medium Enterprises Development Organization) strives to trigger the foundation of new businesses, particularly by financial support. However, the degree of effectiveness of the financial support allocated by KOSGEB is a hot debate.

Despite the opportunity to increase the effectiveness of financial support by taking different entrepreneur types into account, research based on entrepreneurial typologies and financial support have received less

attention in practice. Discussions of entrepreneurial typologies exist in a number of sources (Bird, 1989; Gartner, 1985; Gartner, Mitchell, & Vesper, 1989; Woo, Cooper, & Dunkelberg, 1991). However, there is a limited number of academic studies in Turkish literature associated with entrepreneurial type. In addition, few studies (Dulupçu vd., 2007; Dulupcu and Özkul, 2007; Dinçer vd. 2011; Ballı, 2017) have discussed the role of entrepreneurial typologies in Turkey. Ballı and Kayalar (2019: 709) stated that there is no common framework in the literature about the basic characteristics of entrepreneurs.

This study aims to determine the entrepreneurial types of nascent entrepreneurs, who are attendees of a KOSGEB training program. The existence of studies examining entrepreneurial typologies is hoped to contribute to the literature and be beneficial for the policymakers, particularly KOSGEB, for a better understanding of entrepreneurship types of nascent entrepreneurs.

## Conceptual Framework

### Entrepreneurial Typologies

The term “typology” simply refers to the classification of objects according to type (Garmonsway, 1984). By dictionary definition, typology is defined as “a classification according to general type especially in archaeology, psychology, or the social sciences” (Oxford Dictionary, 2020). Another definition for typology is “the study of types, or a system of dividing things into types” (Cambridge Dictionary, 2020). Independent of the study field, typology-oriented efforts aim to determine differences have generalizable facts. Typology studies are useful in terms of having a better understanding and learning of the phenomena in hand. Moreover, typologies enable researchers to see patterns easily in complex situations. (Ballı, 2018).

The use of typologies has become widespread in social and management sciences. Additionally, typologies have received attention in the field of entrepreneurship. As a matter of fact, there are several typologies on entrepreneurs. In his widely accepted classification, Smith (1967) puts entrepreneurs in two types: craftsman-entrepreneur and opportunistic-entrepreneur. Among the other generally-accepted typologies, Filley and Aldag (1978) categorize entrepreneurs into three types that are craftsman, promotion, and administrator, while Dunkelberg and Cooper (1982) tackle entrepreneurial typologies by dividing entrepreneurs into three types: growth-oriented, independence-oriented, and craftsman-oriented. Different entrepreneurial typologies are depicted in Table 1.

*Table 1. Entrepreneurial Typologies*

Authors	Date	Typologies
Smith	1967	Two types of entrepreneurs: 1. Craftsman entrepreneur 2. Opportunist entrepreneur
Collins and Moore	1970	Two types of entrepreneurs: 1. Administrative entrepreneur 2. Independent entrepreneur
Laufer	1975	Four types of entrepreneurs: 1. Manager or innovator 2. Growth-oriented owner-entrepreneur 3. Owner refusing growth but seeking efficiency 4. Craftsman entrepreneur
Miles and Snow	1978	Four types of entrepreneurs: 1. Prospector 2. Innovator 3. Follower 4. Reactor

Vesper	1980	At least 11 types of entrepreneurs: <ol style="list-style-type: none"> <li>1. Solo self-employed individuals</li> <li>2. Team builders</li> <li>3. Independent innovators</li> <li>4. Multipliers of existing models</li> <li>5. Economy-of-scale exploiters</li> <li>6. Capital aggregators</li> <li>7. Acquirers</li> <li>8. Artists who buy and sell</li> <li>9. Conglomerate builders</li> <li>10. Speculators</li> <li>11. Manipulators of apparent values</li> </ol>
Julien and Marchesnay	1987	Two types of owner-managers: <ol style="list-style-type: none"> <li>1. PIG (perpetuation, independence, growth)</li> <li>2. GAP (growth, autonomy, perpetuation)</li> </ol>
Carland, Hoy, Carland	1988	Two types of organizational actors: <ol style="list-style-type: none"> <li>1. Entrepreneur</li> <li>2. Small business owner-manager</li> </ol>
Lafuente and Salas	1989	Four types of new entrepreneurs: <ol style="list-style-type: none"> <li>1. Craftsman</li> <li>2. Risk-oriented</li> <li>3. Family-oriented</li> <li>4. Managerial</li> </ol>
Filion	1998	Two types of entrepreneurs: <ol style="list-style-type: none"> <li>1. Operator</li> <li>2. Visionary</li> </ol>
Marchesnay	1998	Four types of entrepreneurs: <ol style="list-style-type: none"> <li>1. Isolated</li> <li>2. Nomad</li> <li>3. Notable</li> <li>4. Entrepreneurial</li> </ol>
Duchéneaut	1999	Social style of enterprise creators: <ol style="list-style-type: none"> <li>1. Rebel (28%)</li> <li>2. Mature (41%)</li> <li>3. Experienced (25%)</li> <li>4. Beginner (6%)</li> </ol>

**Source:** Filion, L. J. (2000). Entrepreneurial typologies: Are they useful? In Brauchlin E., Pichler, J.H. (Eds) *Unternehmer und Unternehmensperspektiven für Klein- und Mittelunternehmen, Festschrift für Hans Jobst Pleimer*, Duncker & Humblot, Berlin/ St. Gallen: p. 163-172.

### Smith's Entrepreneurial Typology

Although some preliminary studies were carried out on the classification of entrepreneurial typologies, the work of Smith (1967), in which he classifies two types of entrepreneurs as opportunistic and craftsman, forms the basis for the following classifications. An opportunistic entrepreneur (O-E) is defined “as an upwardly mobile person whose approach to the management of the business is one of concentrating on strategic matters” (Tan, Menkhoff & Chay, 2007). In a way, they are viewed as the brains behind an operation. Research suggests that this type of entrepreneurs come from a more privileged middle to upper-class socioeconomic status. Craftsman entrepreneurs (C-E), also known as artisans, are those who possess a skill or talent that helps them build a business. According to Smith (1967), the C-E typically have good professional skills. They have improved technical experience, but they lack communication skills. They hesitate to delegate authority and can be labeled as risk-avers. There are three main characteristics to differentiate O-E from C-E. These characteristics are related to family, education, and work experience and success.

## Main Characteristics of Opportunistic Entrepreneurs and Craftsman Entrepreneurs

### Family Background and Role-Models

The C-E is considered to come from a blue-collar background. Their fathers are usually skilled workers in specific areas, such as carpentry, printing, plumbing, tool-and-die work. The C-E is risen up in an environment that places a high value on task-focused behavior. They generally prefer their fathers or their close relatives as role-models. The C-E begins to work very early in life. They get part-time jobs from a very early age while they continue their education. Due to their family background, the values of the practical work life and the importance of practical accomplishments are what they perceive and internalize as important. Their early work experience invigorates this orientation (Smith, 1967).

In contrast to the family background of the C-E type, O-E is exposed to the middle class. Their fathers run small businesses. They grow up in an environment that they are exposed to the values of the business life and the middle-class, and later they internalize these values. Assuming that they have skilled fathers, they have other people in their environments who act role-models.

### Education

The education level of the C-E can be classified as being restricted to the technical areas. Even if they are exposed to other areas that are different than technical and vocational, they do not see more value in them. They are selective in learning process and prefer things that will support their technical knowledge. Anything outside of the areas they are exposed to will be considered as impractical and useless. They are concerned with the pragmatic, the practical, the how-to-do-it aspects of learning (Smith, 1967).

On the other side, O-E have more years of formal education in contrast to the C-E type. They are good at technical and art courses as well as being interested in sports. They are considered to be the leaders of their graduating classes and many other organizations.

### Work Experience and Success Theme

The work experience of the C-E before the time of initiating their own businesses are characterized by the success theme. Regardless of the route they take, they complete the required steps more quickly than their associates. They focus on attaining mastery over machines. They cannot be identified with management. They are more willing to hire people like themselves.

The O-E has a variety of work experience compared to narrow technical work experience of the C-E. The O-E gains technical experience, but they are more willing to seek experience in merchandising, marketing, selling, or administration. Brief explanations about the characteristic differences between O-E and C-E are summarized in Table-2.

*Table 2. Main Characteristics of Opportunistic and Craftsman Entrepreneurs*

Characteristics	Opportunistic Entrepreneurs	Craftsmen Entrepreneurs
Family Background and Role-Models	<p>... are exposed to the middle class</p> <p>... are exposed to the values of the business life and the middle-class</p> <p>... have different people in their environments who act role-models.</p>	<p>... are from a blue-collar background</p> <p>... raise up in an environment that places a high value on task-focused behavior.</p> <p>... prefer their fathers or their close relatives as role-models.</p> <p>... perceive the values of the practical work-life and the importance of practical accomplishments as crucial.</p>

Education	... are good at technical and art courses as well as being interested in sports. ...are leaders of their graduating classes and many other organizations.	... are restricted to the technical areas. ... are selective in learning process and prefer things that will support technical information. ... focus on the pragmatic, the practical, the how-to-do-it aspects of learning.
Work Experience & Success Theme	... have a variety of work experience compared to narrow technical work experience of the C-E. ... gain technical experience, but they are more willing to seek experience in merchandising, marketing, selling, or administration.	... complete the required steps more quickly than their associates. ... focuses on attaining mastery over machines. ... cannot be identified with management. ... are more willing to hire people like themselves.

### 3. METHODOLOGY

The participants of this study consist of nascent entrepreneurs, who are attendees of a KOSGEB training program. The attendees were involved in a 25-person 10-day training course. A total of 175 attendees, from 7 courses, constitute the sample. All attendees were asked to fill the survey form. Nevertheless, only 148 forms were appropriate to analyze.

Based on Smith's entrepreneurial typology (1967) 148 nascent entrepreneurs, who are attendees of KOSGEB course in Adana/Turkey, are classified as craftsmen entrepreneurs and opportunistic entrepreneurs. In line with Smith (1967), characteristics in Table 3 are measured to classify nascent entrepreneurs. All the characteristics are measured in line with the way Özkul and Dulupçu (2007) followed.

*Table 3. Comparison Between Craftsman and Opportunistic Entrepreneurs*

Entrepreneurial variables	Craftsman	Opportunistic
1 Breadth in education and training	Formal education is technical only	Formal education includes some non-technical area
2 Breadth in the type of jobs held	Jobs are technical only	Jobs include activities other than the technical, practical or mechanical managing
3 Management reference group	Management is not considered a reference group.	Management is considered a reference group.
4 Management sponsor or multiple role models	No management sponsor and only a single role model	Worked closely with a top executive or influenced by different individuals at different points in life.
5 High social involvement	Belongs to professional associations only	Involved in community association not directly related to the profession, trade, or business
6 Effective communication ability	Limited oral and written communication ability evident.	Evidence of effectiveness in oral and written communication

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7	Delegation of authority and responsibility	Does not delegate authority and responsibility to build the organization	Delegates to the point where the organization can run itself or hires to relieve self of routine
8	Universalistic criteria for employee selection	Selects on a particularistic basis; wants a full member of the 'company family'	Selects on a universalistic basis, the kind of person who could work for any organization
9	Multiple sources of capital used	No more than two capital sources, typically savings and a loan from a friend	More than two sources of capital
10	Multiple methods of establishing customer relations	Customers developed by personal contact only, based on long-term relationships	Customers developed using a variety of marketing methods; personal selling, advertising, direct mail, etc.
11	Varied competitive strategies	Strategies limited to price, quality, and company reputation	Strategies extend to new products and marketing methods, different distribution channels, etc.
12	Long term planning for company initiation	No evidence of plans more than one year prior to the initiation phase	Initiation of business planned more than one year prior to actual start
13	Planning for future growth and change	No plans for growth and change	Desire to grow and gives evidence of having a plan to accomplish
14	Employee relations not paternalistic	Paternalistic-strong 'family type' involvement with employees	Employee relations are not paternalistic

**Source:** Smith, N. R. and Miner, J. B. (1983). Type of Entrepreneur, Type of Firm, and Managerial Motivation: Implications for Organizational Life Cycle Theory. *Strategic Management Journal*, 4(4), p. 330.

Firstly, education level of nascent entrepreneurs was analyzed. Originally, Smith (1967) conceptualized this element as “breadth in education and training”. If formal education is only technical, these educational experiences are considered as a determinant of craftsmen type. Whereas, if formal education includes some non-technical area, it is considered as a determinant of opportunistic type. Since it is not possible to analyze the technical aspect of participants’ education, an approach similar to Seong (2011) was followed, in which participants respond to the item “Formal education includes some non-technical area” as 1=strongly disagree and 5=strongly agree. Higher scores are associated with opportunistic, lower scores are associated with craftsman entrepreneur type.

Secondly, the breadth of jobs held was evaluated as a determinant for entrepreneurial typology. If the job is solely technical, it is considered as a determinant of craftsman entrepreneur. Whereas, if the job involves activities non-technical activities, it is considered as a determinant for the opportunistic entrepreneur. In other words, positions such as corporate communications manager were grouped as an opportunistic entrepreneur, whereas positions such as car-mechanic were grouped as craftsmen entrepreneur. In order to measure this element, in line with Seong (2011), participants responded to “Jobs are technical only.” on a five-point Likert scale. Higher scores are associated with craftsman type, lower scores are associated with the opportunistic type. In line with the first two elements, the remaining elements are measured on a five-point Likert scale.



## Results and Discussion

This study aimed to determine the entrepreneurial types of nascent entrepreneurs, who are attendees of a KOSGEB training program. Based on Smith's entrepreneurial typology (1967), a survey form was applied to 148 nascent entrepreneurs to classify the sample as craftsmen entrepreneurs or opportunistic entrepreneurs.

Smith (1967) determined 14 characteristics to evaluate entrepreneurial typology. In line with this study, all characteristics were measured with a 5-point Likert scale. As a result of the measurement of each characteristic in Table 3, the descriptives were calculated. Mean, median, mod, and standard deviations are illustrated in Table 4.

*Table 4. Statistics for Entrepreneurial Characteristics*

	Mean	Median	Mod	Standard Deviation
Breadth in education and training	2,96	3,00	3,00	1,06
Breadth in type of jobs held	2,82	3,00	2,00	1,10
Management reference group	3,19	4,00	4,00	1,34
Management sponsor or multiple role models	2,25	2,00	2,00	,954
High social involvement	1,51	1,00	1,00	1,20
Effective communication ability	4,48	5,00	5,00	,622
Delegation of authority and responsibility	2,56	2,00	1,00	1,34
Universalistic criteria for employee selection	2,24	2,00	2,00	1,18
Multiple sources of capital used	3,62	4,00	4,00	1,13
Multiple methods of establishing customer relations	4,19	4,00	4,00	,79
Varied competitive strategies	4,38	4,00	4,00	,64
Long term planning for company initiation	4,39	4,00	5,00	,65
Planning for future growth and change	4,49	5,00	5,00	,69
Employee relations not paternalistic	2,29	2,00	2,00	1,08
Overall Mean: 3,38				

The main finding of the study is that the overall mean is 3.38, meaning that participants of this study are in the O-E direction. This clear direction may arise from the fact that the sample consisted of participants who are well aware of and are seeking support for their entrepreneurial efforts. These are the attributes directly associated with O-E type. This finding is in line with the findings of Özkul and Dulupçu (2007), who studied entrepreneur types in two cities in Turkey and found that 62% of the participants are in the O-E direction. Nonetheless, Oğuztimur (2013) studied 32 companies in Kayseri and found that a considerable amount of the shareholders of these companies are in the C-E direction. This contradiction may arise from the fact that despite cultural similarities or geographical proximities, entrepreneurial types may remarkably differ (Ballı, 2017: 161).

The highest mean value among the characteristics was for the statement "Planning for future growth and change", namely "Desire to grow and to give evidence of having a plan to accomplish". Only 2 of the respondents disagree and only 10 neither agree nor disagree with the statement. The remaining 91% of the respondents either agree or strongly agree to have a growth plan. This characteristic is a clear sign of the nascent entrepreneurs' characteristics in terms of O-E. The second highest value mean value was for effective communication ability, with 4,48. 1 of the respondents disagree and 7 neither agree nor disagree with the statement. The remaining 94% of the respondents either agree or strongly agree to have effective communication ability. The third highest value was for "Long term planning for company initiation" with a mean value of 4,39. There were no 'strongly disagree' or 'disagree' answers for this statement. 13 participants neither agree nor disagree with the statement of "Initiation of business planned

more than one year prior to actual start". The remaining 91% percent agree or strongly agree with this statement. This statement, again, shows the O-E direction of the participants.

The lowest mean value was for "high social involvement", with a mean value of 1,51. Participants stated that they are not involved in any community association not directly related to the profession, trade, or business. This low level of social involvement is considered to be a sign of C-E. The second-lowest characteristic was "Universalistic criteria for employee selection" with a mean value of 2,24. A total of 70% of the respondents disagree or strongly disagree with the statement of "Selects on a universalistic basis the kind of person who could work for any organization". This result may be associated with the dominant collectivist aspect of Turkish culture. Lastly, the third-lowest characteristic is "Management sponsor or multiple role models" with a mean value of 2,25. Only 12% of the respondents stated that they agree or strongly agree to the statement of "Worked closely with a top executive or influenced by different individuals at different points in life". This characteristic shows the C-E direction of the participants.

The findings of this study are hoped to be beneficial particularly for KOSGEB since it strives to improve the entrepreneurial ecosystem in Turkey. Along with the training programs offer, this government agency provides reimbursable support to newly established enterprises. Recently, the number of new entrepreneurs demanding financial incentives from KOSGEB is increasing. In 2017, 1.692 million ₺ were provided to entrepreneurs, and 819 million ₺ of this amount were non-repayable aid, 739 million of these amounts were interest-free credit, and 134 million of these amounts were re-payable aid. ([www.kosgeb.com](http://www.kosgeb.com)). Nevertheless, as the amount of financial support increases, the effectiveness of this support is becoming a matter of debate. In order to effectively allocate the resources that it has, rather than a one-size-fits-all approach, KOSGEB may customize the allocation of its financial support based on entrepreneur typologies.

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#### REFERENCES

- Ballı, A. (2017). Girişimcilik ve girişimci tipolojileri. *Süleyman Demirel Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 4(29), 143-166.
- Ballı, A. & Kayalar, M. (2019). Typology and comparison of Turkish entrepreneurs in Germany and Turkey. *Ankara Hacı Bayram Veli Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, 21(3), 706-736.
- Bird, B. J. (1989). Entrepreneurial behavior. Glenview, IL: Scott, Foresman.
- Dinçer, M. A. M., Yildirim, M., & Dil, E. (2011). Is there any linkage between entrepreneur typologies and strategy typologies?. *Procedia-Social and Behavioral Sciences*, 24, 601-610.
- Dulupçu, M., Sungur, O., Demirgil, H., Şentürk, C., Özkul, G. and Sezgin, A. (2007). Yenilik, işbirliği ve girişimcilik: Batı akdeniz bölgesi (Antalya-Burdur-Isparta, İBBS TR61) KOBİ'lerinin tutumlarının değerlendirilmesi, (Eds: Murat Ali Dulupçu & Onur Sungur, TOBB Yayınları, Ankara.
- Oğuztimur, S. (2013). Kayseri'deki Büyük Ölçekli İmalat Sanayisi Girişimcilerinin Girişimci Tipolojileri Bakımından Değerlendirilmesi. *Megaron*, 8(3), 175-178.
- Özkul G. and Dulupçu, M. A. (2007). Kişisel Gelişimin Girişimci Tipleri Üzerine Etkisi Antalya Isparta İllerinde Bir İnceleme. *Girişimcilik ve Kalkınma Dergisi*, 2, 67-92.

- Dunkelberg, W. C., & Cooper, A. C. (1982). Entrepreneurial typologies. *Frontiers of Entrepreneurship Research*, 1-15.
- Filion, L. J. (1998). Two Types of Entrepreneurs: The operator and the visionary consequences for education. *Montréal: École des hautes études commerciales*, Working paper.
- Filley, A. C. & R. J. Aldag. (1978). Characteristics and measurement of an organizational typology, *Academy of Management Journal*, 21, 578-591.
- Garmonsway, G.N. (1984) *The Penguin English Dictionary* (Harmondsworth, UK: Penguin Books, 3rd edn).
- Gartner, W. B. (1985). A conceptual framework for describing the phenomenon of new venture creation. *Academy of Management Review*, 10, 696-706.
- Gartner, W. B., Mitchell, T. R., & Vesper, K. H. (1989). A taxonomy of new business ventures. *Journal of Business Venturing*, 4, 169-186.
- Özkul, G. and Dulupçu, M. A. (2007). Kişisel Gelişimin Girişimci Tipleri Üzerine Etkisi Antalya Isparta İllerinde Bir İnceleme. *Girişimcilik ve Kalkınma Dergisi*, 2, 67-92.
- Seong, J. Y. (2011). The effects of high performance work systems, entrepreneurship and organizational culture on organizational performance. *Seoul Journal of Business*. 17(1). 3 -36
- Smith, N. R. (1967). The entrepreneur and his firm: The relationship between type of man and type of company. Bureau of business and economic research, Michigan State University, East Lansing: Michigan.
- Smith, N. R. and Miner, J. B. (1983). Type of Entrepreneur, Type of Firm, and Managerial Motivation: Implications for Organizational Life Cycle Theory. *Strategic Management Journal*, 4(4), 325-340.
- Tan, W. L., Menkhoff, T., & Chay, Y. W. (2007). The effects of entrepreneurial growth orientation on organizational change and firm growth. *Small Enterprise Research*, 15(2), 88-99.
- TurkStat (2016). Statistics for Small and Medium-Sized Enterprises. Retrieved from <http://www.tuik.gov.tr/PreHaberBultenleri.do?jsessionid=5pKcY1wQMSHmpJG0T12dDjg1cTrsQJkmMLNs7X22z00LQY5McGGI!994806734?id=21540>
- Woo, C. Y., Cooper, A. C., & Dunkelberg, W. C. (1991). The development and interpretation of entrepreneurial typologies. *Journal of Business Venturing*, 6, 93-114.
- Yaman, Ö. (2018). Analysis of personal factors effect on entrepreneurial intention among nascent entrepreneurs. Adana Science and Technology University. Adana.

## THE ECONOMICAL AND FINANCIAL IMPACT OF COVID-19 EPIDEMIC ON MIGRANT LABOR FORCE

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### ABSTRACT

The objective of this study is to investigate the economic and financial effects of COVID-19 epidemic on migrant labor force. Literature review is the research design of this study. It is possible to achieve economic growth in the short term with some productivity-enhancing measures. However, what matters is the long-term economic growth. This is because, as the source of long-term economic growth and technological innovations, skilled labor force is more concrete. Therefore, for long-term economic growth, supply of skilled workforce is an indispensable precondition. Results are analyzed by comparing different resources, evaluating the literature and taking advantage of International Labor Organization (ILO) and Organization for Economic Co-operating and Development (OECD) statistics. According to study results, COVID-19 poses an unprecedented negative impact on working conditions of migrant work force. Migrant workers are among the most vulnerable in the global labor force affected by the COVID-19 epidemic. But, COVID-19 lock downs will particularly have the highest negative impact on low paid and low skilled (unskilled) migrant work force. Unskilled migrant workers are often excluded from national COVID-19 policy responses in hosting countries, such as wage subsidies, unemployment benefits or social security and social protection measures. Also, access to COVID-19 testing or medical treatment might not be available to unskilled migrant workers. Concerning conclusion and recommendations, migrant workers, should be integrated into risk pooling mechanisms to guarantee social insurance and universality of coverage and solidarity in financing. Health care related benefits can also assist to protect both migrant workers and their host countries.

**Keywords:** Finance, Economy, COVID-19, Labor Force, Immigration

### Introduction

The COVID-19 crisis is having an unprecedented impact on global economies, businesses and labor force. COVID-19 poses an unprecedented negative impact on working conditions of unskilled migrant workers. COVID-19 will particularly have high negative impact on low paid and low skilled foreign workers, who are commonly employed largely without legal status in host countries. Migrant workers are among the most vulnerable in the global labor force affected by the COVID-19 epidemic. COVID-19 also hampered the flow of foreign labor force migration from least developed countries (LDCs) to more economically developed countries (MEDC) abroad. Developed countries closed their borders and tightened security measures. This will have severe impact on economies currently facing labor shortages, particularly in sectors where migrants are heavily employed (Organization for Security and Co-operation in Europe - OSCE, 2020).

Labor force who migrate abroad are divided as unskilled or skilled migrant workers, depending on their education level (Any, Antonina and Antoine, 2012). The world economy has a dual structure at the top of the causes of labor migration. On one side of this dual structure, high-tech more economically developed countries (MEDC) exist. On the other side, there exist developing and least developed countries (LDCs), who suffer from capital deficiency and agricultural production (Babataş, 2007). As education is the most important determinant of long-term economic growth, skilled human resource migration is also of great importance for the economic growth of countries.

### **Definition of Migrant Workers in the Global Labor Force**

According to ILO figures approximately 2.2 billion workers, representing 68 percent of the global labor force are living in countries with recommended or required workplace closures due to epidemic. Migrant workers represent approximately 4.7 percent of this global labor pool comprising of 164 million migrant workers. Approximately 50 percent of it consist of migrant women workers. In some countries, migrant workers constitute a big portion of the labor force making important contributions to societies and economies. Unfortunately, most migrant workers are temporary unskilled, informal or unprotected, characterized by low wages and lack of social protection. Mostly unskilled migrant labor force consists of women migrant workers (ILO Monitor, 2020). Remittances sent by foreign laborers to their relatives in developing countries where they left off for work exceed four times the sum of official development assistance received (International Organization for Migration - IOM, 2008). In this context, the amount of official remittance transfers to countries of immigrant workers is clearly the most important economic contribution for the country of origin (Kaya, 2009).

The definition of labor force migration abroad is where its owners live and earn their capital. It is parallel to the term "capital flow", which corresponds to financial capital not invested in places of origin. As a result of labor migration abroad, the inability of qualified workers to participate in economic activity in their country of origin increases. It is not possible to clearly differentiate official foreign exchange transfers as qualified or unqualified. Therefore, this "capital flow" should be evaluated as a whole. In the world, only the International Monetary Fund (IMF) keeps the money transfer records of the countries exporting labor force. However, the money sent through unofficial channels is not included. Source of labor migration abroad, decreasing birth rate in developed countries, increasing life expectancy, demographic trends and retirement at a young age are not in favor of sustainable economic growth. Thus, according to some resources, even qualified and unqualified labor force together to ensure sustainable economic growth in the information economy era are of great importance (Baltagi, Baskaya and Hulagu, 2012).

### **Literature on Skilled and Unskilled Migrant Workers**

Recent studies in the literature emphasized on the economic damage suffered by developing countries from skilled labor migration to abroad (Gökbayrak, 2008). However, as a result of migration of labor force abroad, skilled migrant workers increased remittances in foreign exchange transfers due to the excess earnings (Faini, 2006). This relieves the foreign exchange shortage of the emigrant country's economy. That is assumed to aid economic growth. But, uncertainty and the debate over its economic effects on emigration countries (source countries) continues (Faini, 2006; Alper, 2005). In general, skilled migrants are mostly from middle- and upper-income families with good family status. Also, they usually do not need to send money to their families (Gökbayrak, 2008). Instead of sending money, they prefer bringing close relatives with them to the host country. In short, contrary to popular belief, brain drain leads to remittances. It can have the opposite effect. Today, the increase in demand from MEDC's

to skilled workforce continues and consequently, the share of skilled migrant workers in the foreign migration pie is growing (Beine, Docquier and Rapoport, 2006).

A significant amount of literature on the topic confirms that, exclusion of migrant workers is more costly than inclusion. Developed OECD economies in the coming years relied on the supply of skilled labor that is hampered by the COVID-19 epidemic. Voluntary immigrants constitute the majority of the workforce migration abroad. Homo economicus is about acting rationally in the economic decision-making process (Özalp, 2011). Education and skills like other types of capital, play a key role in income distribution. Also, the place of birth and education have a central role in the collection of data on the migration of qualified workers abroad. But in general, countries of origin do not regularly keep the numbers and qualifications of immigrant workers.

In the literature, studies on the impact of labor migration on countries of origin are generally theoretical and transnational by comparison (Acosta, Fajnzylber and Humberto; 2007; Avato, 2008; Sanderson, 2009). In the literature, the amount of remittances is very high in emigration and receiving countries. This is influenced by numerous macro and micro economic factors. Also, labor migration causes fluctuations with its economic performances (Erdem and Sayan, 2007). It is known that, foreign remittances cause fund transfers from MEDC's to least developed countries (LDCs). Direct foreign investments of this foreign currency source for least developed countries (LDCs) can be stated as the second important source of finance. In addition, these fund transfers are emphasized to have a more stable structure than private sector capital flows (Erdem and Sayan, 2007; Faini, 2006). Human capital elements in the economic growth process, education and its result as the skilled labor migration are important factors in a country's income distribution.

### **Economic Impact of COVID-19 on Migrant Labor Force**

COVID-19 economic impacts on migrant workers and government responses are dynamic and differ depending on country and region. As economic opportunities decrease, overall labor demand for migrant workers is contracting in some sectors while expanding in others such as health care and seasonal agriculture. Many of the jobs available to unskilled migrant workers are in temporary, informal or unprotected workplaces. COVID-19 epidemics economically impacts women migrant workers whom appear to be unskilled and over-represented in the informal economies. They are among undocumented workers in many countries. Unskilled women migrant workers are in a particularly high-risk group for COVID-19 epidemic (ILO Monitor, 2020).

Unskilled migrant workers experienced significant income losses during the pandemic, in line with national workers. Most COVID-19 infected countries such as Brazil, Chile and Portugal established support programmers for the unemployed due to lock downs where migrant workers and informal workers, can also benefit. Most countries affected by the epidemic such as New Zealand and Tunisia made wage subsidy schemes available to migrant workers. Some countries also started treating migrant workers as permanent residents during the pandemic to ensure their access to the public and national health services. Among others, countries like Qatar, Saudi Arabia and Malaysia provided free screening and testing for migrant workers to lessen the economic impact of COVID-19 (ILO Mointor, 2020).

### **Conclusion and Recommendations**

As a result of the economic crisis caused by the global COVID-19 epidemic, the livelihoods of approximately 1.6 billion informal workers (most vulnerable segment with majority unskilled migrant workers) were negatively affected. This is because of the general closure measures and/or the fact that these people are already working in sectors that have been hithardest by the crisis. In the first month of the crisis, the income of informal workers worldwide is estimated to be 60 percent lower. This decrease

is 80 percent regionally in Africa and the Americas, 21.6 percent in Asia-Pacific and 70 percent in Europe and Central Asia.

The dilemma over health versus the economy also has a work force migration dimension. In order to control the economic impact of COVID-19 on migrant workers, they should be integrated into risk pooling mechanisms, in line with nationals, to ensure social insurance and universality of coverage and solidarity in financing.

Health care related benefits can also help to protect both migrant workers and their host countries. A number of countries have taken measures to ensure that migrant workers can also benefit from the national social protection schemes and have free access to COVID-19 testing as well as screening irrespective of their status. These were all strategically very correct moves.

## REFERENCES

- Acosta, P., Fajnzylber, P., Humberto, L. J. (2007). The Impact of Remittances on Poverty and Human Capital: Evidence from Latin American Household Surveys (English). Policy, Research Working Paper. No. WPS 4247, Washington, D.C., World Bank Group. <http://documents.worldbank.org/curated/en/446091468046772511/The-impact-of-remittances-on-poverty-and-human-capital-evidence-from-Latin-American-household-surveys>
- Akman, V. (2011). The Impact of International Labor Migration and Remittances on Turkey's Economic Growth. Yakamoz Yayınları. İstanbul.
- Alper, A.M. (2005). Macroeconomic Determining Factors of Workers' Remittances: Turkey Example. Unpublished Expertise Thesis, CBRT, General Directory of Remittances, Ankara. (in Turkish).
- Any, F., Antonina, L., Antoine, P. (2012). Skilled Migration and the Brain Drain. Diversities, Vol. 14, No: 1, UNESDOC Digital Library (Electronic Library), <https://unesdoc.unesco.org/ark:/48223/pf0000218151>
- Avato, J. (2008). Migration Pressures into the European Union: Evidence from Albania, Egypt, Moldova and Tunisia. World Bank Group, Department for Social Protection and Labor and Institute for the Study of International Migration, Georgetown 105 University, 1-47.
- Babataş, G. (2007). Beyin Göçü ve Türkiye'nin Sosyo Ekonomik Yapısının Beyin Göçüne Etkisi. Öneri Dergisi, 7 (28), 263-266. DOI: 10.14783/maruoneri.684406
- Baltagi, B. H., Baskaya, Y. S., Hulagu, T. (2012). How Different are the Wage Curves for Formal and Informal Workers? Evidence from Turkey. Working Papers 1216, Research and Monetary Policy Department, Central Bank of the Republic of Turkey.
- Barrero, J.M., Bloom, N. and Davis, S.J. (2020). COVID-19 is also a Reallocation Shock. NBER Working Paper, No. 27137.
- Beine, M., Docquier, F. and Rapoport, H. (2006). Alternative Measures of the Brain Drain. Research Report, World Bank, Washington DC.
- Erdem, F. P. and Sayan, S. (2007). Türk ve Alman Ekonomilerindeki İş Çevrimlerinin Almanya'dan Türkiye'ye Transfer Edilen İşçi Gelirleri Üzerindeki Etkileri: Ekonometrik Analizi. İstanbul: Yurt Dışı Ekonomi ve Dış Ticaret Politikaları, 103-130.
- Faini, R. (2006). Remittances and the Brain Drain. IZA Discussion Papers Series, No: 2155.

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- Fasani, F., and Mazza, J. (2020). Immigrant Key Workers: Their Contribution to Europe's COVID-19 Response. IZA Policy Paper. No.155. Bonn.
- Gökbayrak, Ş. (2008). Uluslararası Göç ve Kalkınma Tartışmaları: Beyin Göçü Üzerine Bir İnceleme. Ankara Üniversitesi SBF Dergisi, 63 (03), 65-82. DOI: 10.1501/SBFder\_0000002073
- ILO Monitor (2020). COVID-19 and the World of Work. ILO Website. <http://www.ilo.org> (Accessed on June 20, 2020).
- International Organization for Migration - IOM (2008). World Migration Report 2008. International Organization for Migration - IOM Website. <https://www.iom.int/world-migration-report-2008> (Accessed on June 18, 2020).
- Kaya, A. (2009). Islam, Migration and Integration: The Age of Securitization. New York: Palgrave Macmillan.
- Kerwin, D., Nicholson, M., Alulema, D and Warren, R.. (2020). US Foreign-born Essential Workers by States and Status and the Global Pandemic. Centre for Migration Studies, New York.
- OECD (2020). OECD Economic Outlook. Volume 2020 (1). Paris.
- Organization for Security and Co-operation in Europe -OSCE (2020). OSCE PA VS COVID-19. Organization for Security and Co-operation in Europe – OSCE Website. <https://www.oscepa.org/documents/president/reports-22/4065-osce-pa-vs-covid-19-reflections-policy-contributions-and-recommendations-presented-by-osce-pa-president-george-tsereteli-13-july-2020/file> (Accessed on June 26, 2020).
- Özalp, A. (2011). Homo Politicus VS Homo Economicus: Yurttaş/Birey İkilğini Aşmak. Sosyal ve Beşeri Bilimler Dergisi, Cilt: 3, Sayı: 2, 23-35.
- Sanderson, M. (2009). Globalization, Development and International Migration: A Cross-National Analysis of Less-Developed Countries, 1970–2000. Social Forces 88(1), The University of North Carolina Press, 2009, 302-336.
- World Bank (2020). COVID-19 Crisis Through A Migration Lens Migration and Development. Washington DC.
- World Bank Group (2020). Global Economic Prospects. World Bank Group. Washington DC.



## A STUDY ON FUNCTIONAL FOOD CHOICES AMONG CONSUMERS: OPPORTUNITIES AND CHALLENGES

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### ABSTRACT

Functional food has always been of significant interest in food and nutrition industry for years. It is indicated that the functional food provides the body with the required quantities of vitamins, fats, proteins, carbohydrates, *etc.*, needed for its healthy existence. Earlier research study shows that the demand for functional foods within the developing countries is growing and presenting a worthwhile opportunity to develop domestic as well as international markets.

Revenue generated by the worldwide functional food market is expected to increase substantially between 2019 and 2025, from an estimated USD 174.75 billion to over USD 275.77 billion. Thus, considerable research efforts are suggested for the development and marketing of functional foods because most markets require scientific evidence and verification of functionality. The objective of the present study is: (1) to provide a comprehensive summary on the concept functional food, (2) identify the growth and progress of functional food and (3) to investigate the opportunities and challenges of consumers' preferences for different functional foods. Additionally, this study discusses the examples of different functional foods in different product categories. The study concludes that functional food offers interesting growth opportunities for the food industry.

**Keywords:** Functional food, consumers preferences, nutrition, probiotic

### Introduction

Today, foods aim not only to satisfy hunger and provide people with the nutrients they need, but also to prevent nutritional disorders and improve the physical and mental health of consumers (Menrad, 2003; Roberfroid, 2000). The demand for functional foods is increasing due to their better nutritional and immunizing properties. In addition, consumer intent to follow a healthy lifestyle, especially during these trial periods, is expected to increase the demand for nutritious diets during the outbreak of COVID-19. Functional foods play a prominent role in this regard. The term "functional food" was first used in Japan in the 1980s and was used in foods fortified with certain ingredients that have beneficial physiological effects (Hardy, 2000; Kwak Jukes, 2001; Stanton, Ross, Fitzgerald, and Van Sinderen, 2005). The study of functional food was first introduced in 1984 by Japanese scientists who studied the relationship between diet, emotional satisfaction, empowerment and body regeneration. In 1991, the Ministry of Health announced legislation for the approval of a food safety-oriented group called FOSHU (Food for Specified Health Uses) which included the establishment of information health costs for this type of food (Burdock, Carabin, & Griffiths, 2006; Kwak & Jukes, 2001; Menrad, 2003; Roberfroid, 2000). Beneficial foods can improve overall health (pre- and post-exercise), reduce the risk of disease (eg products that lower cholesterol), and can also be used to cure some ailments.

Effective food is like different types of food; the first is eaten within an ordinary diet. Unlike other diets, processed foods show health benefits and may reduce the risk of chronic disease rather than nutritional activities, including health improvements (AGNS, 2007). to food. Therefore, a functional food provides

the body with the vitamins, fats, proteins, carbohydrates, etc. necessary for healthy survival (AGNS, 2007).

Functional foods have been developed in virtually all food categories. From a product point of view, According to Kotilainen et al., 2006; Spence, 2006, the functional property can be included in numerous different ways as it can be seen in Table 1.

Type of functional food	Example
Fortified product A food fortified with additional nutrients	Fruit juices fortified with vitamin C
Enriched products A food with added new nutrients or components not normally found in a particular food	Margarine with plant sterol ester, probiotics, prebiotics
Altered products A food from which a deleterious component has been removed, reduced or replaced with another substance with beneficial effects	Fibres as fat releasers in meat or ice cream products
Enhanced commodities A food in which one of the components has been naturally enhanced through special growing conditions, new feed composition, genetic manipulation, or otherwise	Eggs with increased omega-3 content achieved by altered chicken feed

According to Mañkinen-Aakula (2006) the classification of functional foods as (1) “contribute well to your life”, i.e. improve regular stomach and colon functions (pre- and probiotics) or “improve children’s lives” by supporting their ability to learn and behave. However, it is difficult to find good biomarkers for cognitive, behavioral, and psychological functions (2), functional foods are designed to reduce an existing health risk problem, such as high cholesterol or high blood pressure, and (3) from those products that “make your life easier” (for example, gluten-free, gluten-free products).

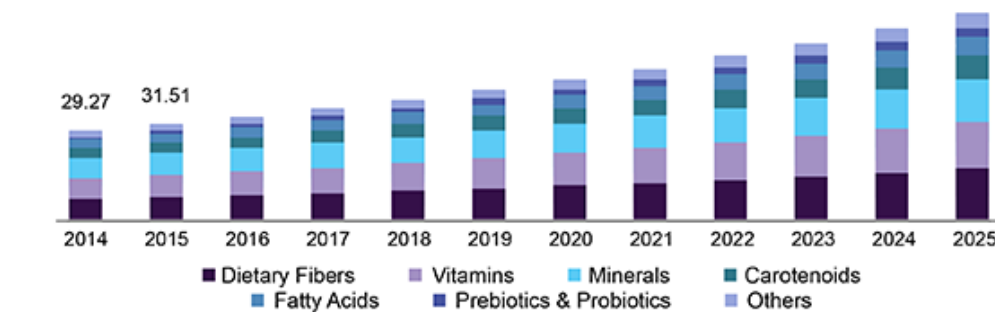
Most of the early development of functional foods was that fortified with vitamins and / or minerals such as vitamin C, vitamin E, folic acid, zinc, iron and calcium (Sloan, 2000). Consequently, the focus was on foods fortified with various substances such as omega-3 fatty acids, phytosterols and soluble fiber to promote good health or to prevent diseases such as cancer (Sloan, 2002). Recently, food companies have taken further steps to develop foods that offer a variety of health benefits in a single food (Sloan, 2004).

#### **Opportunities and Challenges of Consumers’ Preferences for Functional Foods.**

Consumers have embraced the idea of “functional food” and that a well-functioning diet is recognized as the key to success for market orientation, consumer product marketing, and successful marketing. However, adherence is determined by a number of factors such as basic health problems, awareness of the concept of "working nutrition", as well as functional factors, the nature of the aircraft product, communication systems with an impact on health, etc. According to the US Food and Drug

Administration, as shown in the pictures below, there is a significant increase in food consumption from 2014 to 2025.

**U.S. functional foods market size, by ingredient, 2014 - 2025 (USD Billion)**



Source: [www.grandviewresearch.com](http://www.grandviewresearch.com)

Consumer knowledge and awareness of the health effects of newly developed functional ingredients appears to be quite limited, so there is a strong need for specific consumer communication activities in this regard. By purchasing functional foods in general consumers can gain a modern and positive sense of self. These products provide consumers with a modern way to follow a healthy lifestyle, which is different from the traditionally healthy diet defined by nutrition experts. In general, the outlook is positive for functional foods and their consumers, so such a concept represents a sustainable trend in a multi-niche market.

However, despite all the active support for nutritious foods, there are problems with the food sector, product shortages, and the inability to supply more products. In addition, the internationally recognized Central Food Technology Research Institute in Mysore has many research institutes and activities in these areas, but foods in particular need to maintain and comply with international standards.

## Conclusion

The functional food industry and business in India is convincing and growing with the target of becoming a major force in the international health market (Japan Development Institute 2006). The government is working hard and quickly to enforce its rights to property and food laws; cultivation is flourishing; and additions to research and infrastructure continue to increase from year to year (Ismail, 2005). It is therefore can be concluded that functional food can be an opportunity for economic growth for many developing countries and the biodiversity and cultural understanding of the health effects of certain types of plant species.

## REFERENCES

- Burdock, G. A., Carabin, I. G., & Griffiths, J. C. (2006). The importance of GRAS to the functional food and nutraceutical industries. *Toxicology*, 221, 17–27.
- Diplock, A. T., Aggett, P. J., Ashwell, M., Borneo, F., Fern, E. B., & Roberfroid, M. B. (1999). Food and Agriculture Organization of the United Nations (FAO). Report on Functional Foods, Food Quality and Standards Service (AGNS), 2007. Available online: [http://www.fao.org/ag/agn/agns/files/Functional\\_Foods\\_Report\\_Nov2007.pdf](http://www.fao.org/ag/agn/agns/files/Functional_Foods_Report_Nov2007.pdf) (accessed on 25 February 2010).
- Hardy, G. (2000). Nutraceuticals and functional foods: Introduction and meaning. *Nutrition*, 16, 688–697.

- Ismail, Adam. 2006. "India: The Land of Opportunity." *Functional Foods & Nutraceuticals*, January.
- Japan Development Institute. 2006. "Functional Food: Country Case Studies of China and India." Draft internal report prepared for the World Bank.
- Kotilainen, L., Rajalahti, R., Ragasa, C., & Pehu, E. (2006). Health enhancing foods: Opportunities for strengthening the sector in developing countries. *Agriculture and Rural Development Discussion Paper 30*.
- Kwak, N. S., & Jukes, D. J. (2001). Functional foods. Part 1. The development of a regulatory concept. *Food Control*, 12, 99–107.
- Maˆkinen-Aakula, M. (2006). Trends in functional foods dairy market. In *Proceedings of the third functional food net meeting*.
- Menrad, K. (2003). Market and marketing of functional food in Europe. *Journal of Food Engineering*, 56, 181–188.
- Roberfroid, M. B. (2000). An European consensus of scientific concepts of functional foods. *Nutrition*, 16, 689–691.
- Scientific concepts of functional foods in Europe: Concensus document. *British Journal of Nutrition*, 81(suppl. 1), S1–S27.
- Sloan, A. E. (2004). The top ten functional food trends. *Food Technology*, 58, 28–51.
- Sloan, E. (2002). The top 10 functional food trends. The next generation. *Food Technology*, 56, 32–57.
- Spence, J. T. (2006). Challenges related to the composition of functional foods. *Journal of Food Composition and Analysis*, 19, S4–S6.
- Stanton, C., Ross, R. P., Fitzgerald, G. F., & Van Sinderen, D. (2005). Fermented functional foods based on probiotics and their biogenic metabolites. *Current Opinion in Biotechnology*, 16, 198–203.

## THE EFFECT OF IMPORTED INPUT COMPOSITION ON THE TURKISH MANUFACTURING SECTOR PRODUCTION

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### ABSTRACT

Together with the recent developments in the economic globalization, the production process, especially in developing countries, is mainly based on imported production input. This situation, on the one hand, creates a low value-added production structure, on the other hand, leads to economic vulnerabilities due to deficits in the current account. Thus, there is a great need to design policies aimed at reducing the outsourcing of the economy with the information to be obtained by analyzing the imported input structure of the production. The aim of this study is to analyse the effect of imported production input composition on the manufacturing industry. In this context, the effect of capital and intermediate goods and energy imports on manufacturing industry production was determined between 2010:01 and 2020:01 using the nonlinear ARDL (NARDL) method. Empirical results have shown that imports of intermediate goods and energy have the greatest impact on manufacturing industry production. In addition, this effect has an asymmetrical feature. Thus, the positive effect of increases in intermediate goods imports on the manufacturing industry is higher than the negative effects of decreases.

**Keywords:** Manufacturing Sector, Import Dependency, Nonlinear ARDL

### Introduction

The manufacturing industry is a sector that largely determines the developments in the whole economy. To achieve consistently high economic growth rates, it is necessary to have a strong manufacturing industry. For this reason, it is of great importance to examine the production structure of the manufacturing industry and to implement policies that support it. It is determined that there have been important transformations in the production structure of the manufacturing industry in recent years, which affect the economies of the country very closely. The most important of these transformations is that the rate of imported input usage has increased rapidly in the manufacturing sector. In other words, outsourcing rates in the manufacturing industry have increased considerably in all countries (Gereffi and Lee, 2012: 28-29). Thus, the link between imports of intermediate and capital goods and industrial production has been considerably strengthened. Imports of intermediate goods have grown at a higher rate than the volume of production which resulted in increases in the imported input component of domestic production. As a result, the imported input component has increased rapidly in the production processes of the exporting sectors. In this way, the increase in outsourcing in the manufacturing sector has been the most important dynamic that has recently determined the changes in production and foreign trade (Jones and Kierzkowski, 2005: 3-5).

Many factors increase the use of imported inputs in the manufacturing industry. Undoubtedly, the main reason for the use of imported inputs in the production process is due to the deficiencies in input

production in the country. Therefore, manufacturing industry production in these countries is realized by importing input goods. Inadequate domestic input production may result from the country's lack of natural resources. Failure to provide adequate input production in the country may also be a result of the country's technological inadequacy in the relevant fields. On the other hand, liberalization policies, which have been implemented especially since the 1980s, have had significant effects on the use of imported inputs in the country's economies. With the increase in competition as a result of liberalization policies, companies had to produce higher quality products in order to gain a competitive advantage. Thus, it has become more attractive to import higher quality intermediate and capital goods and use them in the production process (Dicken, 2011: 5). Especially developing countries have directed to high technological intermediate and capital goods imports from developed countries to increase their competitiveness. On the other hand, rapid developments in production technology forced firms to import these high-tech production inputs frequently. The increase in the speed of technological renewal caused firms to renew their infrastructure in a shorter time, leading to more frequent import inputs (Feng et al., 2016: 87).

Another important factor that increases the use of imported inputs in economies is the high growth rates realized by the sectors that use imported input intensively. While a high production increase was achieved in the sectors producing based on imported inputs, stagnation was observed in the sectors where the use of traditional and domestic inputs was dominant (Özkan, 2006: 3). Thus, entrepreneurs have directed their activities to sectors that mostly use foreign input. As a result, the rate of imported inputs has increased significantly in economies. In other words, the rapid growth rates of the sectors using more imported raw materials and materials increased the rate of imported input usage across the economy. Finally, due to the spread of multinational companies, the increase in direct foreign capital investments has increased the production levels of national economies based on imported input. Because of the organizational structure of multinational companies, it has turned the production process in many goods groups into an "international" structure. As a result, rather than performing all the stages of production activities in a single country (horizontal specialization), the structure (vertical specialization), in which each stage was carried out in a different country, was adopted. Thus, foreign trade volume (intra-industry trade) has increased significantly, especially in intermediate goods. In other words, foreign direct investments, which have become widespread due to the increase of multinational companies, have accelerated the vertical specialization process and expanded intra-industry trade based on intermediate goods (Gereffi, 2015: 3).

As determined above, the increase in the use of imported inputs in the manufacturing industry has had some significant negative effects on the economy. The import dependency of the manufacturing sector causes deterioration in the internal and external balance of the country. Indeed, increased the use of imported inputs in the manufacturing sector leads to some harmful consequences such as decreased value-added in the production process and increasing foreign trade deficits. Firstly, production dependent on imported input negatively affected the capacity to create value-added. The increase in the import dependency ratio of the manufacturing industry means that the amount of imported intermediate and investment goods used in production gets more share from the production. This situation causes the import to get more shares from the value created through production. Thus, the sectoral value-added created by the manufacturing industry decreases considerably (Eşiyok, 2012: 73). Secondly, the production structure dependent on imported input negatively affects the foreign trade deficit. In economies where outsourcing is intense, exporting sectors also need import input largely. So much so that the increase in imports exceeds the export sector's production performance and causes the foreign economic balance to deteriorate. That means the increase in imports for production more than the

production value provides income transfer to the countries where the imports are made (Özlale and Karakurt, 2012: 12-13).

Literature focusing on Turkey shows that all the facts indicated above are also valid for the Turkish economy. Indeed, imported goods have been a critical factor in the growth performance of the manufacturing sector. In other words, the increase of imported goods in the form of capital or intermediate becomes a necessity in order to increase productivity in the Turkish manufacturing sector. Because of this dependency of the manufacturing sector on imported input, the contribution of the increase in the manufacturing sector to the national economy loses its significance. Concerning the Turkish foreign trade performance, it is also clearly indicated that the import figures are consistently higher than exports. That means, import input dependency in the export sector is also important factor during the foreign trade deficit.

Within the literature, although many studies widely determine the level and consequences of import content of Turkish manufacturing industry production, there is a limited number of studies analyzing the composition of import dependency of the Turkish manufacturing sector. Because of this reason, unlike other researches, in this study, we especially focus on the composition of imported input of the Turkish manufacturing sector. By examining the composition of the import content of the manufacturing industry, we aim to make a much more effective policy implication for sustaining the internal and external balances of the Turkish economy. In this context, we examine the effect of capital and intermediate goods and energy imports on manufacturing industry production for the term between 2010:01 and 2020:01 using the nonlinear ARDL (NARDL) method.

Our paper is organized after this introduction as follows. Second section review the existing literature in Turkey. Third section presents data, methodology and empirical results. Final section concludes and makes some policy implications.

## **Literature**

A wide variety of models and methods are used to measure the weight of imported input use in production. In this context, the effects of the use of imported inputs on manufacturing industry or export sector production were tried to be determined. In addition, studies are aiming to analyze the effects of imported input use on more macro-level economic growth. Thus, it is determined that the use of imported inputs at all levels increases its importance and associated with the manufacturing industry and economic growth and export sector production. More specifically, studies in the literature investigating import dependency in production appear to be divided into three groups. A group of studies has focused on the impact of imported input on the manufacturing industry. In another group of studies, the effect of production input imports on exporter sectors, and therefore on exports, was examined. Finally, in some researches, the relationship between economic growth and imported input has been tried to be revealed at a much more macro level.

Concerning studies examining the impact of imported input in the manufacturing sector, Senesen and Senesen (2003) analysed the import dependency of production in the Turkish case by using a new type of input-output model. Their assessment of the import dependency structure of the Turkish economy covers the period 1973-1996. Empirical findings showed that production in this period has become more dependent on intermediate imports of an increased variety. They concluded that the less stable growth pattern of the economy and its increased vulnerability to foreign resource availability mostly arises from the import dependency structure of the Turkish economy. Yükseler and Türkan (2006) analysed the dependency of the Turkish manufacturing industry on the use of imported inputs, using the 1998 Input-Output table. It is concluded that the direct imported input use in the manufacturing industry is 14.75. It also observed that the use of imported inputs in some sub-sectors was significantly above the overall

average for the manufacturing industry. These sectors consist of the basic metal industry, furniture other manufacturing industry, petroleum products, communication radio-TV devices, chemical products, and electrical machinery devices. Imported input use remains at a very low level in the food, beverage, non-metallic mineral products, wood cork products, and tobacco product manufacturing sectors. Saygılı et al. (2014) examined the degree of import content of production in the Turkish manufacturing industry. They utilize data compiled through a survey of 145 large-scale manufacturing industries. Findings indicated that the import content of production has increased in the overall manufacturing industry in Turkey. More specifically, firm-level data indicate that the share of imported inputs in total inputs rose 10 % during 2002 - 2007.

Regarding the recent period, Ayas (2017) has analyzed the impact of imported input on the manufacturing sector from 1995 to 2011 by using 17 input-output tables published by the World Input-Output Database (WIOD) for the Turkish Economy. Empirical evidence asserted that Turkey has an economic structure that heavily intermediate input demands. However, inadequate intermediate input supplying dominated the Turkish economy. This structure Turkish economy has increased the dependency of imported inputs. Therefore, it is essential to change the production structure to reach sustainable economic growth by stimulating sectors that produce intermediate input, particularly in the manufacturing sector. Bayraç and Doğan (2018) estimated imported input indicators of economic sectors in Turkey by using the Augmented Mean Group (AMG) Method for the 2003-2012 period. Estimations results show that sectors having the highest rate of import increase in sectoral level are “motorized land vehicles”, “machinery and equipment”, “other transportation vehicles”, “office, accounting and data processing devices” and “main metal industry” sectors. Thus, they concluded that the increase of production in specified manufacturing industries in Turkey is only possible by the importation of inputs. Erduman et al. (2019) examine the evolution of the import content of production and exports in Turkey for the 2002-2017 period by using input-output tables. They estimate the production and imported input use for 20 selected sectors from the manufacturing industry. To calculate import requirement ratios by using the Leontief inverse matrix it is comprised of both direct and indirect linkages for each sector. Findings indicate that the import content of production is below the import content of exports. On the other hand, sectors with the highest import requirements are found to be those with higher capital and technology intensity such as coke and refined petroleum products, basic metals, and motor vehicles.

In another group of studies investigating the dependence of the production structure on imports, it is seen that evaluations are made within the framework of the relations between exports and imports. In these studies, the import dependency of the manufacturing sectors has been revealed within the framework of the dependency of the production structure of the exporting sector on imports. İnançlı and Konak (2011) analyzed the dependence of exports on imports through the automotive sector in Turkey. For the analysis, input, and output tables of 1998 and 2002 published by TUIK were used. Thus, important export sectors have tried to measure the level of dependence on the foreign automotive sector in Turkey. In the analyses made, they found that the dependency level of exports on imports increased in the automobile and other sub-sectors related to the automobile industry. Especially since the high import / total supply ratios were reached in 2003 and 2004, it was observed that most of the inputs required for total production were met through imports. Karakaş (2017) examined the imported input dependency of the Turkish export sector using the panel data analysis on foreign trade datasets of EU countries for the period of 2000-2015. Thus, this study tries to determine the import-oriented export growth using the data set of foreign trade that was made between Turkey and the EU. Author finds that exports of consumer goods (around 45% of total exports) are highly dependent on total imports and intermediate goods imports. Therefore, in times of rapid economic growth, the increase in exports



fuelled the increase in imports, thereby increasing the foreign trade deficit and current account deficit. It has been concluded that more serious measures based on structural measures should be taken in order to eliminate this fragility and negative consequences. Karabulut (2020) has examined the import dependency of exports in Turkey for the period 1992-2019. The relationship in question tested by Dynamic Least Squares (DOLS) and Fully Modified Least Squares (FMOLS) method. Empirical findings have determined the cointegration between exports and imports. In addition, long-term analysis of DOLS and FMOLS methodology showed that exports in Turkey largely dependent on imported inputs. More specifically, a one-unit increase in imports can lead to an increase of only 0.48 units in exports, which means that increasing foreign trade may have negative effects aside from the positive consequences on Turkey's economy

Finally, several studies have been made to test the import dependency of the economy at the macro level by examining the impact of imported input on economic growth. Ugur (2008) examine the causal relationship between economic growth and imports for the monthly data set between 1994 and 2005 using the Granger causality test and Impulse Response and Variance Decompositions Models. Empirical results clearly show that economic growth is significantly influenced by import in Turkey. İspir et al. (2009) studied the contribution of exports and imports to the dynamics of Turkish GDP Growth in the period between 1989 and 2007. According to empirical findings, while exports and imports together contribute substantially, the contribution of exports and imports tend to decrease during the expansion period. In addition to this, considering the high dependence of Turkey's export structure on imports, it is emphasized that the role of imports on economic growth was much greater. Azgun and Sevinç (2010) analyzed the effect of exports and imports on economic growth using the Engle Granger Causality Test for the period 1998-2008. The findings obtained from this study, the export of economic growth in Turkey has revealed that too dependent on imports. More recently, Kurt and Zengin (2016) aim to investigate whether imports and their sub-items are directly or indirectly effective on national income in Turkey. Direct and indirect effects of imports on national income and economic growth are investigated using the Feder-Ram model while causality between variables is investigated using VAR analysis and the Granger causality analysis. Empirical findings show that the coefficients for total imports, imports of machinery and transport equipment, imports of processed materials and imports of a variety of manufactured goods, imports of investment and consumption goods are found to be positive and statistically significant. Dereli (2018) researched the relationship between economic growth and foreign trade through data between 1969 and 2016. When the long-term relationships are examined with the Johansen cointegration test, a long-term relationship between exports, imports, and growth has been found. In the Granger causality test based on the Vector Error Correction model, it was revealed that there is a relationship from import to growth. Thus, Turkey also imports propelled study results support the hypothesis growth.

As can be seen from the literature, the import dependency of the economy has been demonstrated by many studies in different ways. However, most of the studies deal with imported input use, so there is no comprehensive analysis of the compositional distribution of imported input use. In other words, there are a limited number of studies examining the composition of the Turkish manufacturing sector's dependence on imports. Therefore, there is a great need for a detailed analysis of the imported input composition of the Turkish manufacturing sector. Based on this need determined in the literature, the imported input use composition of the manufacturing industry has been comprehensively examined in our study. In this context, we examine the effect of imported input including the capital, intermediate goods, and energy imports on manufacturing industry production. Thus, it is aimed to contribute to the design of policies that will support sustainable and high value-added manufacturing industry production more effectively.

### Data, Methodology and Empirical Results

In this section, the impact of the imported capital, intermediate goods and energy on manufacturing industry production is empirically investigated. Table 1 presents the definition and the sources of variables. All variables are seasonality adjusted with the Census X-13 and expressed in natural logarithm form. The data related to Manufacturing Industry Production (lnMIP), Capital Goods Import (lnCGI) and Intermediate Goods Import (lnIGI) were taken from the Central Bank of the Republic of Turkey (CBRT) database. The data for Energy Import (lnENI) were obtained from the Turkish Statistical Institute (TurkStat) database. The econometric analysis is performed with the quarterly data between 2010:1 and 2020:1 period.

*Table 1: Variable Definitions*

Variables	Definitions	Source
Manufacturing Industry Production (lnMIP)	Manufacturing Industry Production Index (2015)	CBRT
Capital Goods Import (lnCGI)	Investment Goods Import Volume Index (2010)	CBRT
Intermediate Goods Import (lnIGI)	Intermediate Goods Import Volume Index (2010)	CBRT
Energy Import (lnENI)	Energy Import Volume Index (2010)	TurkSt

In our empirical analysis, we used the nonlinear autoregressive distributed lag (NARDL) model developed by Shin et al. (2014) to determine the composition of import dependency of the Turkish manufacturing production. In the framework of NARDL method, nonlinear relationships between the manufacturing production and the composition of imported input are taken into account. Accordingly, the impacts of positive and negative shocks of imported input components on manufacturing sector production are modelled separately. Thus, we estimate three different models to determine the impact of imported input including the capital goods (CGI), intermediate goods (IGI), and energy (ENI) on manufacturing industry production (MIP).

Equation (1), (2) and (3) show the three different NARDL models which are estimated the impact of capital goods (CGI), intermediate goods (IGI), and energy imports (ENI) on manufacturing industry production (MIP), respectively. In Equations (1), (2) and (3),  $lnMIP$  symbolizes the logarithmic form of manufacturing industry production. In Equation (1),  $lnCGI^+$  and  $lnCGI^-$  represent positive and negative shocks of logarithmic form of capital goods import. In Equation (2),  $lnIGI^+$  and  $lnIGI^-$  represent positive and negative shocks of logarithmic form of intermediate goods import. In Equation (3),  $lnENI^+$  and  $lnENI^-$  represent positive and negative shocks of logarithmic form of energy import.

$$\Delta lnMIP_t = \alpha_0 + \rho lnMIP_{t-1} + \theta^+ lnCGI_{t-1}^+ + \theta^- lnCGI_{t-1}^- + \sum_{i=1}^{p-1} \mu \Delta lnMIP_{t-i} + \sum_{i=0}^q (\pi_i^+ \Delta lnCGI_{t-i}^+ + \pi_i^- \Delta lnCGI_{t-i}^-) + \varepsilon_t \quad (1)$$

$$\Delta lnMIP_t = \alpha_0 + \rho lnMIP_{t-1} + \theta^+ lnIGI_{t-1}^+ + \theta^- lnIGI_{t-1}^- + \sum_{i=1}^{p-1} \mu \Delta lnMIP_{t-i} + \sum_{i=0}^q (\pi_i^+ \Delta lnIGI_{t-i}^+ + \pi_i^- \Delta lnIGI_{t-i}^-) + \varepsilon_t \quad (2)$$

$$\Delta lnMIP_t = \alpha_0 + \rho lnMIP_{t-1} + \theta^+ lnENI_{t-1}^+ + \theta^- lnENI_{t-1}^- + \sum_{i=1}^{p-1} \mu \Delta lnMIP_{t-i} + \sum_{i=0}^q (\pi_i^+ \Delta lnENI_{t-i}^+ + \pi_i^- \Delta lnENI_{t-i}^-) + \varepsilon_t \quad (3)$$

Firstly, we perform the Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) unit root tests developed by Dickey and Fuller (1981) and Phillips and Perron (1988), respectively. According to ADF and PP test results presented Table-2, while some of the variables are stationary in level values, I (0).

On the other hand, some of them become stationary when the first differences are taken, I (1). Thus, the unit root test results indicated that the different degree of integration of the series are suitable for the NARDL method. (Since none of the data to be used in the analysis is I (2), there is no problem with the ARDL model prediction.)

**Table 2: ADF and PP Unit Root Tests**

<b>Augmented Dickey-Fuller (ADF)</b>				
Variables	(Level)		(First difference)	
	intercept	intercept-trend	intercept	intercept-trend
<b>lnMIP</b>	-2.2932 (3) [0.1759]	-2.4573 (11) [0.1308]	-10.1398*** (2) [0.0000]	-10.3487*** (2) [0.0000]
<b>lnCGI</b>	-2.6631* (2) [0.0836]	-3.6528** (2) [0.0296]	-11.7945*** (1) [0.0000]	-11.9407*** (1) [0.0000]
<b>lnIGI</b>	-1.8931 (2) [0.3326]	-3.4401* (1) [0.0510]	-11.4091*** (1) [0.0000]	-11.3824*** (1) [0.0000]
<b>lnENI</b>	-2.5010 (2) [0.1178]	-3.6816** (2) [0.0274]	-13.6639*** (1) [0.0000]	-13.7286*** (1) [0.0000]
<b>Phillips-Perron (PP)</b>				
Variables	(Level)		(First difference)	
	intercept	intercept-trend	intercept	intercept-trend
<b>lnMIP</b>	-2.4895 (6) [0.1205]	-2.5854 (8) [0.1178]	-42.5038*** (15) [0.0001]	-62.6638*** (22) [0.0001]
<b>lnCGI</b>	-4.8758*** (6) [0.0001]	-5.3308*** (6) [0.0001]		
<b>lnIGI</b>	-2.7032* (4) [0.0764]	-6.0507*** (7) [0.0000]	-21.9536*** (4) [0.0000]	-21.9831*** (4) [0.0000]
<b>lnENI</b>	-2.7008* (2) [0.0768]	-7.9803*** (6) [0.0000]	-31.5619*** (29) [0.0001]	-40.8158*** (37) [0.0001]

**Notes:** The parentheses indicate the lag length and square brackets represent the probability values. \*\*\*, \*\* and \* show that statistical significance 1%, 5% and 10%, respectively.

Long run estimation results of NARDL model related to three different model are presented in Table-3 which consists of two basic panels: Panel A and Panel B. Panel A presents the estimated values of long run coefficient while Panel B shows the results of diagnostic tests for all three models.

In the Panel A section of Table-3, long run asymmetric coefficients of capital goods import (lnCGI),  $L_{lnCGI^+}$  and  $L_{lnCGI^-}$ , in the framework of the estimation of Model 1, are calculated 0.48 and 0.36, respectively. Regarding the Model 2, long-run estimation results of asymmetric coefficients of intermediate goods import (lnIGI),  $L_{lnIGI^+}$  and  $L_{lnIGI^-}$ , are found to be 0.72 and 0.65, respectively. Finally, in the estimation of Model 3, long run asymmetric coefficients of energy import (lnENI),  $L_{lnENI^+}$  and  $L_{lnENI^-}$ , are calculated 0.74 and 0.64, respectively.

These long run estimations of asymmetric coefficients obtained for all three models allow us to make three important inferences.

Firstly, the effects of imports of intermediate goods (lnIGI) and energy import (lnENI) on manufacturing industry production (lnMIP) are quite similar. The results indicate that a 1% increase in lnIGI will increase by 0.72% in lnMIP while a 1% decrease in lnIGI results in a 0.65% decrease in lnMIP. Quite similarly, a 1% increase in lnENI will increase by 0.74% in lnMIP while a 1% decrease in lnENI results in a 0.64% decrease in lnMIP.

Secondly, it seems that both types of imported input, lnIGI and lnENI, have a greater effect on manufacturing industry production compared to imports of capital goods (lnCGI). In other words, the impact of imported capital goods (lnCGI) on manufacturing industry production (lnMIP) is smaller than

the effects of  $\ln\text{IGI}$  and  $\ln\text{ENI}$ . A 1% increase in  $\ln\text{CGI}$  will increase manufacturing industry production ( $\ln\text{MPI}$ ) by 0.48%, while this value is 0.72% and 0.74% in  $\ln\text{IGI}$  and  $\ln\text{ENI}$ , respectively. A 1% decrease in  $\ln\text{CGI}$  will decrease it by 0.36% while this value is 0.65% and 0.64% in  $\ln\text{IGI}$  and  $\ln\text{ENI}$ , respectively.

Thirdly, the positive effect of increases in intermediate goods and energy imports on the manufacturing industry is higher than the negative effects of decreases. The results indicate that a 1% increase in  $\ln\text{IGI}$  and  $\ln\text{ENI}$  increases  $\ln\text{MIP}$  by 0.72% and 74%, respectively. However, a 1% reduction in  $\ln\text{IGI}$  and  $\ln\text{ENI}$  decreases  $\ln\text{MIP}$  by 65% and 64%, respectively. The fact that the negative effect of the decline in intermediate goods imports is lower than the positive effect of the increase in intermediate goods imports indicates that if there is a decrease in imported intermediate goods, the manufacturing sector can meet some intermediate goods input by using domestic resources. This means that some of the intermediate goods imports can be produced domestically.

In the Panel B section of Table-3, the results of diagnostic tests are presented.  $F_{\text{PSS}}$  is the statistical value for the bound test which performed to examine the asymmetric cointegration relationship between variables in all three models. According to results, the statistical values are 10.18, 20.00 and 13.91 in Model 1, Model 2 and Model 3, respectively. All these statistical values are greater than the critical values at 1% significance level. Therefore, the test results reveal that there is an asymmetric cointegration relation between manufacturing industry production ( $\ln\text{MIP}$ ) and imports of capital goods ( $\ln\text{CGI}$ ), intermediate goods ( $\ln\text{IGI}$ ) and energy imports ( $\ln\text{EMI}$ ) at the level of 1% significance.

Besides, to check the existence of asymmetrical relationships in the short- and long-term Wald statistical values for the long term ( $W_{\text{LR}}$ ) and the short term ( $W_{\text{SR}}$ ) are found to be 16.52 and 40.27 for Model 1, respectively. Same values are 4.2 and 60.60 for Model 2 and 12.44 and 12.03 for Model 3. All these values are greater than the critical values at 1% significance level, except  $W_{\text{LR}}$  in Model 2, which is greater than the critical values at 5% significance level. Accordingly, we decide that there is nonlinear relationship both in the long run and short run in all three model.

Finally,  $R^2$  and Adjusted  $R^2$  values are between 0.94 and 0.95 in three models. Therefore, the explanatory power of the estimations is sufficient. We conducted the Breusch Godfrey Serial Correlation LM test ( $\chi_{\text{SC}}^2$ ) to explore the autocorrelation problem in estimations and proved that there is no serial correlation in all three estimations. Ramsey-Reset test regarding the specification of functional form ( $\chi_{\text{FF}}^2$ ) points out that our three model are correctly specified. We also performed the Breusch-Pagan-Godfrey test ( $\chi_{\text{HET}}^2$ ) for the heteroscedasticity problem and indicated that there is no heteroscedasticity problem in all three models. According to the Jarque-Bera normality test ( $\chi_{\text{NOR}}^2$ ), residuals are normally distributed in all models.

*Table 3: Estimation of the NARDL model*

<b>Panel A: Long-Run Coefficients</b>								
<b>Model 1 (Equation 1)</b>			<b>Model 2 (Equation 2)</b>			<b>Model 3 (Equation 3)</b>		
Var.	Coeff.	t-stat	Var.	Coeff.	t-stat	Var.	Coeff.	t-stat
$L_{\ln CGI^+}$	0.485	5.343 [0.000]	$L_{\ln IGI^+}$	0.721	4.899 [0.000]	$L_{\ln ENI^+}$	0.744	7.952 [0.000]
$L_{\ln CGI^-}$	0.360	4.162 [0.000]	$L_{\ln IGI^-}$	0.654	3.908 [0.000]	$L_{\ln ENI^-}$	0.642	6.153 [0.000]
c	4.153	84.039 [0.000]	c	4.263	111.977 [0.000]	c	4.257	223.907 [0.000]
<b>Panel B: Diagnostic Statistics</b>								
<b>Model 1 (Equation 1)</b>			<b>Model 2 (Equation 2)</b>			<b>Model 3 (Equation 3)</b>		
$F_{PSS}$	10.182***		$F_{PSS}$	20.003***		$F_{PSS}$	13.918***	
$W_{LR}$	16.528***		$W_{LR}$	4.200**		$W_{LR}$	12.446***	
$W_{SR}$	40.279***		$W_{SR}$	60.603***		$W_{SR}$	12.034***	
$R^2$	0.95		$R^2$	0.95		$R^2$	0.95	
Adj. $R^2$	0.94		Adj. $R^2$	0.95		Adj. $R^2$	0.94	
$\chi_{SC}^2$	0.409 [0.912]		$\chi_{SC}^2$	0.727 [0.667]		$\chi_{SC}^2$	0.505 [0.604]	
$\chi_{FF}^2$	0.059 [0.807]		$\chi_{FF}^2$	0.495 [0.835]		$\chi_{FF}^2$	0.028 [0.865]	
$\chi_{HET}^2$	1.030 [0.912]		$\chi_{HET}^2$	1.982 [0.142]		$\chi_{HET}^2$	0.990 [0.480]	
$\chi_{NOR}^2$	4.025 [0.149]		$\chi_{NOR}^2$	4.048 [0.144]		$\chi_{NOR}^2$	2.123 [0.345]	

Note: \*\*\*, \*\* and \* show that statistical significance 1%, 5% and 10%, respectively.

## Conclusion

Recent developments in the world economy have increased production based on imported input in all countries. Accordingly, dependency on imported input in the production process has been an important research subject in Turkey. Consequently, a large literature has emerged to aim for revealing the dependence of Turkish manufacturing sector on imported input. However, there are a limited number of studies have examined the composition of the Turkish manufacturing sector's dependence on imported input. To compensate this gap in the literature, this study aims to analyse the effects of imported production input composition on the Turkish manufacturing industry. In this context, using the nonlinear ARDL (NARDL) method for the quarterly data between 2010:01 and 2020:01, the impacts of capital and intermediate goods and energy imports on manufacturing industry production was determined in three different models. Thus, the asymmetric effect of imported capital goods, intermediate goods and energy on manufacturing industry production are determined separately.

Empirical results show that there are asymmetric cointegration relationships between manufacturing industry production and imported capital goods, intermediate goods and energy. Besides, the asymmetry tests prove that manufacturing industry production has a short- and long-term asymmetric relationship with imported capital goods, intermediate goods and energy. Regarding the long-run asymmetric coefficients, it seems that the effects of imports of intermediate goods and energy on manufacturing industry production are quite similar. It also seems that both types of imported input, intermediate goods and energy imports, have a greater asymmetric effect on manufacturing industry production compared to imports of capital goods. Looking at the long-run asymmetric coefficients of intermediate goods and energy imports more specifically, the positive effect of increases in intermediate goods and energy imports on the manufacturing industry is higher than the negative effects of decreases. Especially, this asymmetric impact of intermediate goods imports on manufacturing industry shows that the Turkish economy has the potential to compensate for the imported intermediate goods, which the manufacturing sector needs. Thus, incentive policies for domestic industries producing intermediate

goods can yield effective results for reducing the foreign dependency of the manufacturing industry in Turkey.

#### REFERENCES

- Ayas, N. (2017). Import dependency of sectors and major determinants: An input output analysis. *European Journal of Sustainable Development Research*, 2(1), 1-16.
- Azgun, S. and Sevinç, H. (2010). Are import a reason of growth? Evidence from Turkey. *The Social Sciences*, 5(2), 66-69.
- Bayraç, N. H and Doğan, E. (2018). Technology poverty and dependency of export on import in Turkey. *International Journal of Social Inquiry*, 11(1), 17-42.
- CBRT (2020). Data. Link <https://www.tcmb.gov.tr/>
- Dereli, D. D. (2018). Türkiye’de ekonomik büyüme ile dış ticaret arasındaki nedensellik ilişkisi (1969-2016). *Yönetim ve Ekonomi Araştırmaları Dergisi*, 16(3), 279-289.
- Dicken, P. (2011). *Global shift: mapping the contours of the world economy* (Sixth edition). London: Sage Publishing
- Dickey, D. A. and Fuller W. A. (1981). Likelihood ratio statistics for autoregressive time series with a unit root. *Econometrica*, 49(4), 1057-1072.
- Erduman, Y., Eren, O. and Gul, S. (2019). The evolution of import content of production and exports in Turkey: 2002-2017. Working Paper No: 19/09, Central Bank of Turkey.
- Eşiyok, B. A. (2012). Türkiye ekonomisinde cari açık sorunu ve nedenleri. *Finans Politik & Ekonomik Yorumlar*, 49(569), 63-85.
- Feng, L., Li Z. and Swenson, D. L. (2016). The connection between imported intermediate inputs and exports: Evidence from Chinese firms. *Journal of International Economics*, 101, 86-101.
- Gereffi, G. (2015). *Global value chains, development and emerging economies*. UNIDO Research, Statistics and Industrial Policy Branch Working Paper, 18/2015, Vienna: UNIDO.
- Gereffi, G. and Lee, J. (2012). Why the world suddenly cares about global supply chains. *Journal of Supply Chain Management*, 48(3), 24-32.
- İnançlı, S. and Konak, A. (2011). Türkiye’de ihracatın ithalata bağımlılığı: Otomotiv sektörü örneği. *Eskişehir Osmangazi Üniversitesi İİBF Dergisi*, 6(2), 343-362.
- İspir, S., Ersoy, B. A. and Yılmaz, M. (2009). Türkiye’nin büyüme dinamiğinde ihracat mı ithalat mı daha etkin?. *Dokuz Eylül Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, 24(1), 59-72.
- Jones, R. W. and Kierzkowski, H. (2005). International fragmentation and the new economic geography. *North American Journal of Economics and Finance*, 16, 1-10.
- Karabulut, Ş. (2020). The impact of imports on exports of Turkey. *Journal of Management and Economic Research*, 18(1), 76-90.
- Karakaş, A. (2017). İthalata dayalı ihracatın riskli yapısı: dış ticarete sürdürülebilirliğin Türkiye için analizi. *Kırıkkale Üniversitesi Sosyal Bilimler Dergisi*, 7(2) , 261-278.

- Kurt, B. and Zengin, B. (2016). İthalatın ekonomik büyüme üzerindeki doğrudan ve dolaylı etkileri: Feder-Ram modeli. *Uluslararası Ekonomik Araştırmalar Dergisi*, 2(4), 67-86.
- Özkan, Ö. F. (2006). Türkiye'nin üretim ve dış ticaret yapısındaki dönüşüm: Küresel yönelimler ve yansımalar rapor eleştirisi. *Ç. Ü. İİBF Dergisi*, 10(1), 1-8.
- Özlale, Ü. and Karakurt, A. (2012). Türkiye'de tasarruf açığının nedenleri ve kapatılması için politika önerileri. *Bankacılar Dergisi*, 83, 1-33.
- Phillips, P. C. B. and Perron, P. (1988). Testing for a unit root in time series regression. *Biometrika*, 75, 335-346.
- Saygılı, Ş., Cihan, C., Yalçın, C. and Brand, T. H. (2014). Türkiye imalat sanayiinde ithal girdi kullanımındaki artışın kaynakları. *İktisat İşletme ve Finans*, 29(342), 9-44.
- Senesen, U. and Senesen G. (2003). Import dependency of production in Turkey: Structural change from 1970's to 1990's. 10. Annual Conference of the Economic Research Forum (ERF).
- Shin, Y., Yu, B., Greenwood-Nimmo, M. (2014). Modelling asymmetric cointegration and dynamic multipliers in a nonlinear ARDL framework. R. Sickelsand and W. Horrace (Ed.), *Festschrift in Honor of Peter Schmidt: Econometric Methods and Applications içinde* (281-314. pp.). Springer.
- TurkStat (2020). Data. Link: <http://www.turkstat.gov.tr>
- Ugur, A. (2008). Import and economic growth in Turkey: Evidence from multivariate VAR analysis. *Journal of Economics and Business*, IX (1-2), 54-75.
- Yükseler, Z. and Türkan, E. (2006). Türkiye'nin üretim ve dış ticaret yapısında dönüşüm: Küresel yönelimler ve yansımalar. *Ekonomik Araştırma Formu Çalışma Raporları, TÜSİAD: Koç Üniversitesi*.

**DO CYBERSLACKING BEHAVIORS DIFFER IN TERMS OF DEMOGRAPHIC CHARACTERISTICS?: AN EMPIRICAL STUDY ON MUNICIPAL EMPLOYEES<sup>1</sup>**

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**ABSTRACT**

The widespread use of information and communication technologies (ICT) has caused radical changes in business life as well as in daily life. Especially the internet, which is one of the components of ICT, brought along many changes in business life, particularly with the use of personal computers, tablets, and smartphones. Although these changes provide substantial advantages for employees and employers, they have the potential to cause some unintended consequences. One of these consequences is cyberslacking, which is defined as the non-work-related use of the internet and mobile technologies during working hours. While employers trying to control cyberslacking behaviors of employees, the effects of various potential antecedents of cyberslacking behaviors were examined in the literature. Additionally, the cyberslacking behaviors of employees are examined in terms of demographic characteristics. Gender, age, marital status, and education level are considered as the main demographic variables that may be associated with cyberslacking behaviors. Although some studies demonstrated that cyberslacking behaviors differ significantly in terms of the mentioned demographic variables, opposing results were obtained in several studies as well. In this context, this study aims to determine whether the cyberslacking behaviors of employees differ according to gender, age, marital status, and education level. In line with this purpose, data were gathered by survey method from 211 municipal employees. In order to examine the relationship between the demographic characteristics of the municipal employees and their cyberslacking behaviors, independent samples t-test was applied. The results showed that cyberslacking behaviors of the employees differ significantly in terms of gender and age, but not in terms of marital status and education level. The results are expected to contribute to the literature since the relationship between cyberslacking behaviors and demographic variables is still an ambiguous field. Additionally, the results have the potential to support practitioners in terms of controlling cyberslacking behaviors.

**Keywords:** Cyberslacking, Cyberloafing, Municipal Employees, Non-Work-Related Internet Usage

**Introduction**

The use of information and communication technologies (ICT) has become an indispensable part of all areas of life. Internet in particular, which is one of the components of ICTs, has become more accessible with the widespread use of smartphones and tablets. Undoubtedly, internet technologies have a significant effect on daily routine and manner of work. By the virtue of many advantages for organizations such as cost minimization, quick communication between departments, and instant access to information independent from space and time, keeping up with technological developments has

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<sup>1</sup> The data used in this study was gathered for the analysis in the master's degree thesis entitled "The impact of perceived organizational justice and job satisfaction on cyberslacking: An empirical research in municipalities in central Adana



become a necessity rather than an option (Anandarajan, Simmers & Ingboria, 2000). Despite all these advantages, excessive and unnecessary uses of internet technologies by employees during working hours have the potential to cause unintended consequences both for individuals and organizations. One of these possible consequences is ‘cyberslacking’ (Lim, 2002), which can be qualified as one of the contemporary forms of avoiding work.

Cyberslacking is defined as employees’ non-work-related internet use for personal purposes during working hours (Lim, 2002; Anandarajan & Simmers, 2004; Henle & Blanchard, 2008; Vitak, Crouse, & LaRose, 2011). In the recent past, non-work-related internet activities were limited to surfing news or sports sites, receiving or checking e-mails, and downloading music. Nevertheless, these activities have differentiated with developing technology. Thereby, actions such as spending time and sharing content on social network sites (SNS), online shopping, playing and downloading online games during office hours are evaluated within the scope of cyberslacking behaviors (Gügerçin & Sığircıkoğlu, 2019). The statistical findings demonstrated that cyberslacking behaviors are progressing in an increasing trend day by day (İnce & Gül, 2011). As a result of research concerning this issue, it was determined that 60% of online shopping, gaming, stock exchange, and auction site visits occurred during working hours (Sharma & Gupta, 2004). According to other research, employees spend about two hours a day for cyberslacking activities (Rajah & Lim, 2011). Therefore, cyberslacking is generally categorized as a form of counter-productive workplace behavior (CWB) in the organizational behavior literature (Odlyzko, 2001; Weatherbee, 2010; Lim & Teo, 2005; Kim & Byrne, 2011; Liberman & Seidman, 2011; Cheng, Li, Zhai & Smyth, 2014; Kerse et al., 2016; Hernandez, Levy & Ramim, 2016).

In comparison to a limited number of studies that have paid attention to the constructive effects of cyberslacking behaviors, it is generally argued that cyberslacking behaviors have a decisive role in the productivity of employees and organizational efficiency (Blanchard & Henle, 2008). Hence, antecedents that lead employees to use the internet in office hours for their non-work-related purposes have been widely discussed in the organizational behavior literature. Several studies were conducted to identify the various antecedents and consequences of cyberslacking (e.g. Lim, 2002; Oravec, 2002; Blau, Yang, and Ward-Cook, 2006; Mahatanankoon, 2006; De Lara, 2007; Van Doorn, 2011; Restubog et al., 2011; Messerra, Karkoulıan & McCarthy, 2011; Jia et al., 2013; Koay, 2017). Besides, there are burgeoning researches on cyberslacking research.

In addition to the researches on the antecedents and consequences of cyberslacking behaviors, the relationship between several demographic characteristics and cyberslacking behaviors was examined. These demographic characteristics were determined mainly as age, gender, marital status, and education level. Although some studies revealed that cyberslacking behaviors differ significantly in terms of mentioned demographic characteristics, other studies have shown opposite results. During the literature review, it was observed that different results were obtained on the relationship between demographic characteristics of employees and their cyberslacking behaviors. For instance, according to the research conducted by Örucü and Yıldız (2014) on 151 academic and administrative personnel of Balıkesir University, cyberslacking behaviors of employees differ according to their age, marital status, and education level, but not in terms of gender. Nevertheless, in another study concerning this issue, it was found that the cyberslacking behaviors of employees differ according to their age and gender (Jia et al., 2013). When the results of these two studies were compared, it was observed that different results were obtained especially regarding the relationship between gender and cyberslacking. According to the generally accepted view, cyberslacking behaviors differ in terms of gender (Morahan-Martin, 1998; Garret & Dangizer, 2008; Vitak et al., 2011; Özkalp et al., 2012; Akbulut, Dönmez, & Dursun, 2017). Nevertheless, several studies did not support this view (Stanton, 2002; Restubog et al., 2011; Askew et al., 2014). Similarly, there are studies with different results in terms of other variables subject to this

research. From this point forth, the main purpose of this study is to examine whether the cyberslacking behaviors of employees differ according to their gender, age, marital status, and education level. Therefore, the hypotheses of this study were proposed as

H<sub>1</sub>: Municipal employees' cyberslacking behaviors differ in terms of gender.

H<sub>2</sub>: Municipal employees' cyberslacking behaviors differ in terms of age.

H<sub>3</sub>: Municipal employees' cyberslacking behaviors differ in terms of marital status.

H<sub>4</sub>: Municipal employees' cyberslacking behaviors differ in terms of educational level.

### Methodology and Analysis

In this study, survey method was applied to determine the effects of employees' demographic characteristics on their cyberslacking behaviors. Data were gathered from 211 municipal employees, who are working in Adana. In order to measure the frequency of employees' cyberslacking behaviors, a scale used by Olcarciyüz (2018) was implemented. The scale, which consists of 20 items, is an integration of the items in three different scales. 2 of the items were adopted from Örucü and Yıldız (2014), 4 of the items from Blau et al. (2006), and 10 of the items were adopted from the cyberslacking scale developed by Lim (2002). The remaining 4 items were added by Olcarciyüz (2018). The scale response options range from "1=never" to "5=always". The demographic information of the employees was obtained from the personal form in the survey. Cronbach's alpha coefficient was used to estimate the internal consistency of the reliability of the scale. The result showed that the scale is highly reliable, with Cronbach's alpha of .97. No factor analysis was conducted since cyberslacking was not intended to be analyzed in terms of its dimensions. Independent samples t-test was applied to determine the relationship between demographic characteristics and cyberslacking behaviors. The results of independent sample t-tests showed that employees' cyberslacking behaviors significantly differ in terms of gender and age, but not in terms of their marital status and education level (Table 1). Therefore, H<sub>1</sub> and H<sub>4</sub> were supported, whereas H<sub>2</sub> and H<sub>3</sub> were not supported.

*Table 1. Differences in cyberslacking behaviors in terms of demographic characteristics*

Demographic Characteristics	N	%	Mean	Df	t	P
Gender						
Male	78	37.0	2.76	0.82	3.756	0.000*
Female	133	63.0	2.31	0.84		
Age						
30 or below	105	49.8	2.61	0.94	2.195	0.029*
31 or above	106	50.2	2.55	0.76		
Marital Status						
Single	127	60.2	2.55	0.88	-1.560	0.120
Married	84	39.8	2.36	0.83		
Education						
High School or Associate Degree	98	46.4	2.45	0.94	-0.408	0.683
Bachelor's D. or Masters/ Doctoral	113	53.6	2.50	0.80		

\*p<.05

In order to reveal which cyberslacking behaviors differ in terms of gender, each item of the scale is analyzed. The results are presented in Table 2. Mean values showed the group statistics for males and

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females. For all types of cyberslacking behaviors that show a significant difference in terms of gender, it seems that male participants engage in cyberslacking behaviors more frequently.

*Table 2. Independent samples t-test for gender*

Cyberslacking Behaviors	Group	Mean	Is the difference significant?
Visit social media sites (Facebook, Instagram, Twitter, etc.)	Male	3,05	X
	Female	2,78	
Share content on social media sites (Facebook, Instagram, Twitter, etc.)	Male	2,79	X
	Female	2,53	
Chat on instant message applications such as Whatsapp, Line, Facebook	Male	2,92	X
	Female	2,78	
Share non-work-related posts on social media sites	Male	2,71	X
	Female	2,41	
Browse news sites	Male	3,47	✓
	Female	2,82	
Browse non-work-related web sites	Male	3,05	✓
	Female	2,65	
Browse entertainment-related web sites (YouTube, Onedio, etc.)	Male	2,87	✓
	Female	2,36	
Read blog (sport, fashion, etc.)	Male	3,01	✓
	Female	2,48	
Browse investment-related web sites	Male	2,67	✓
	Female	2,11	
Check non-work-related e-mail	Male	2,74	✓
	Female	2,24	
Non-work-related banking transactions	Male	2,76	✓
	Female	2,33	
Send non-work-related e-mail	Male	2,59	X
	Female	2,33	
Shop online for personal goods	Male	2,62	X
	Female	2,53	
Browse online shopping sites (Trendyol, Amazon, etc.)	Male	2,51	X
	Female	2,63	
Browse sports-related web sites	Male	3,04	✓
	Female	1,69	
Play online games	Male	2,50	✓
	Female	1,77	
Download online games	Male	2,38	✓
	Female	1,77	
Download non-work-related information	Male	2,59	

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	Female	2,20	✓
Visiting virtual community sites (Wikipedia, Ekşi sözlük, etc.)	Male	2,74	✓
	Female	2,16	
Chat on online chatting websites	Male	2,32	✓
	Female	1,74	

In order to get more specific results about the cyberslacking behaviors that differ in terms of age, each item of the scale is analyzed again. The results are presented in Table 3. Statistics for both groups (younger and older) are presented in terms of means. Similar to the results for gender differences, all types of cyberslacking behaviors that show a significant difference in terms of gender, male participants were found to engage in cyberslacking behaviors more frequently.

*Table 3. Independent samples t-test for age*

Cyberslacking Behaviors	Group Mean		Is the difference significant?
Visit social media sites (Facebook, Instagram, Twitter, etc.)	30 or below	3,04	✓
	31 or above	2,73	
Share content on social media sites (Facebook, Instagram, Twitter, etc.)	30 or below	2,81	✓
	31 or above	2,44	
Chat on instant message applications such as WhatsApp, Line, Facebook	30 or below	2,89	X
	31 or above	2,78	
Share non-work-related posts on social media sites	30 or below	2,80	✓
	31 or above	2,25	
Browse news sites	30 or below	3,16	X
	31 or above	2,96	
Browse non-work-related web sites	30 or below	2,93	X
	31 or above	2,67	
Browse entertainment-related web sites (YouTube, Onedio, etc.)	30 or below	2,63	X
	31 or above	2,47	
Read blog (sport, fashion, etc.)	30 or below	2,73	X
	31 or above	2,62	
Browse investment-related web sites	30 or below	2,44	X
	31 or above	2,19	
Check non-work-related e-mail	30 or below	2,49	X
	31 or above	2,37	
Non-work related banking transactions	30 or below	2,53	X
	31 or above	2,44	

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Send non-work-related e-mail	30 or below	2,58	✓
	31 or above	2,27	
Shop online for personal goods	30 or below	2,61	X
	31 or above	2,52	
Browse online shopping sites (Trendyol, Amazon, etc.)	30 or below	2,70	X
	31 or above	2,47	
Browse sports-related web sites	30 or below	2,44	✓
	31 or above	1,94	
Play online games	30 or below	2,24	✓
	31 or above	1,85	
Download online games	30 or below	2,10	X
	31 or above	1,90	
Download non-work-related information	30 or below	2,37	X
	31 or above	2,31	
Visiting virtual community sites (Wikipedia, Ekşi sözlük, etc.)	30 or below	2,56	✓
	31 or above	2,19	
Chat on online chatting websites	30 or below	2,22	✓
	31 or above	1,70	

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### Conclusion and Discussion

According to the results of applied independent sample t-tests, employees' cyberslacking behaviors differ significantly in terms of gender. Namely,  $H_1$  was supported. According to the results of this research, male employees engage in cyberslacking behaviors more frequently. Interestingly, this result is similar to all types of cyberslacking activities. When the difference in frequency of cyberslacking behaviors is significant for males and females, males were found to engage in these behaviors more. These results are in line with the results of the studies conducted by Matanda, Jenvey & Phillips (2004), Garrett and Dangizer (2008), and Vitak et al. (2011). According to the research conducted by Matanda et al. (2004), male employees were generally found to use the internet for entertainment and commercial purposes.

Cyberslacking behaviors of employees did not differ significantly in terms of their marital status. Therefore,  $H_2$  was not supported. Although the generally supported view in the literature is that married employees will engage in cyberslacking behaviors less than single employees (Özkalp et al., 2012; Örucü & Yıldız, 2014; Çınar & Karcıoğlu, 2015) according to the results of this study, employees' marital status is not a determinant.

According to the independent sample test results applied to determine the relationship between education level and cyberslacking, the education level of the employees was not found to be a determinant in terms of their cyberslacking behaviors. Although it was expected that there will be a

difference in the frequency of employee's non-work internet usage depending on education level (Phillips & Reddie, 2007), H<sub>3</sub> was not supported.

As expected, the results demonstrated that cyberslacking behaviors of the employees differ significantly in terms of their age. Especially, these differences are more related to behaviors related to social media and online gaming. Thereby, H<sub>4</sub> was supported. Results showed similarity with the findings of Kraut, Patterson & Lundmark (1998), Mastrangelo, Everton & Jolton (2006), Köse et al. (2012), and Öricü & Yıldız (2014). Although, according to the results of this study, marital status and education level do not have a determining effect on cyberslacking behaviors, informing all employees in the organization about cybersecurity and ethical internet use without discrimination has the potential to decrease cyberslacking behaviors. Based on these results, it may be advisable to inform young employees and male employees in particular about effective internet usage.

## REFERENCES

- Akbulut, Y., Dönmez, O., & Dursun, Ö. Ö. (2017). Cyberloafing and social desirability bias among students and employees. *Computers in Human Behavior*, 72, 87-95.
- Anandarajan, M., Simmers, C., & Igbaria, M. (2000). An exploratory investigation of the antecedents and impact of internet usage: An individual perspective. *Behaviour & Information Technology*, 19(1), 69–85.
- Anandarajan, M., & Simmers, C. (Eds.). (2004). *Personal web usage in the workplace: a guide to effective human resources management*. IGI Global.
- Askew, K., Buckner, J. E., Taing, M. U., Ilie, A., Bauer, J. A., & Coovert, M. D. (2014). Explaining cyberloafing: The role of the theory of planned behavior. *Computers in Human Behavior*, 36, 510-519.
- Blanchard, A. L., & Henle, C. A. (2008). Correlates of different forms of cyberloafing: The role of norms and external locus of control. *Computers in Human Behavior*, 24(3), 1067–1084.
- Blau, G., Yang, Y., & Ward-Cook, K. (2006). Testing a measure of cyberloafing. *Journal of Allied Health*, 35(1), 9–17.
- Cheng, L., Li, W., Zhai, Q., & Smyth, R. (2014). Understanding personal use of the Internet at work: An integrated model of neutralization techniques and general deterrence theory. *Computers in Human Behavior*, 38, 220–228.
- Çınar, O., & Karcıoğlu, F. (2015). The relationship between cyber loafing and organizational citizenship behavior: A survey study in Erzurum/Turkey. *Procedia-Social and Behavioral Sciences*, 207, 444–453.
- De Lara, P. Z. M. (2007). Relationship between organizational justice and cyberloafing in the workplace: Has “anomia” a say in the matter?. *CyberPsychology & Behavior*, 10(3), 464-470.
- Garrett, R. K., & Danziger, J. N. (2008). On cyberslacking: Workplace status and personal Internet use at work. *CyberPsychology & Behavior*, 11(3), 287–292.
- Gügerçin, U., & Sığırcıkoğlu, E. B. (2019). Rol belirsizliği ve sanal kaytarma: Görgül bir araştırma. *Akademik Araştırmalar ve Çalışmalar Dergisi (AKAD)*, 11(20), 152–161.
- Henle, C. A., & Blanchard, A. L. (2008). The interaction of work stressors and organizational sanctions on cyberloafing. *Journal of Managerial Issues*, 383– 400.
- Hernández, W., Levy, Y., & Ramim, M. M. (2016). An empirical assessment of employee cyberslacking in the public sector: The social engineering threat. *Online Journal of Applied Knowledge Management*, 4(2), 93.
- İnce, M., & Gül, H. (2011). The relation of cyber slacking behaviors with various organizational outputs:

- Example of Karamanoğlu Mehmetbey University. *European Journal of Scientific Research*, 52(4), 507-527.
- Jia, H., Jia, R., & Karau, S. (2013). Cyberloafing and personality: The impact of the Big Five traits and workplace situational factors. *Journal of Leadership & Organizational Studies*, 20(3), 358–365.
- Koay, K. Y. (2017). *Antecedents and consequences of cyberloafing among ict employees in msc status companies*. Master Thesis, Multimedia University Faculty of Management, Malaysia.
- Köse, S., Oral, L., & Türesin, H. (2012). İş yaşamında sosyal kolaylaştırma kavramı ve sanal kaytarma ile ilişkisi: Araştırma görevlileri üzerinde bir araştırma. *Sosyal ve Beşeri Bilimler Dergisi*, 4(1), 287–295.
- Kraut, R., Patterson, M., Lundmark, V., Kiesler, S., Mukophadhyay, T., & Scherlis, W. (1998). Internet paradox: A social technology that reduces social involvement and psychological well-being?. *American psychologist*, 53(9), 1017.
- Lim, V. K. (2002). The IT way of loafing on the job: Cyberloafing, neutralizing and organizational justice. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, 23(5), 675–694.
- Mahatanankoon, P. (2006). Predicting cyber-production deviance in the workplace. *International Journal of Internet and Enterprise Management*, 4(4), 314–330.
- Mastrangelo, P. M., Everton, W., & Jolton, J. A. (2006). Personal use of work computers: Distraction versus destruction. *CyberPsychology & Behavior*, 9(6), 730-741.
- Matanda, M., Jenvey, V. B., & Phillips, J. G. (2004). Internet use in adulthood: Loneliness, computer anxiety and education. *Behaviour Change*, 21(2), 103.
- Messarra, L. C., Karkoulian, S., & McCarthy, R. (2011). To restrict or not to restrict personal internet usage on the job. *Education, Business and Society: Contemporary Middle Eastern Issues*, 4(4), 253–266.
- Morahan-Martin, J. (1998). The gender gap in Internet use: Why men use the Internet more than women—a literature review. *CyberPsychology & Behavior*, 1(1), 3-10.
- Olcarcıyüz, M. (2018). *İçsel pazarlama faaliyetleri ile çalışanların sanal kaytarma davranışları arasındaki ilişkilerin incelenmesi: Sağlık sektöründe bir uygulama* [Master's Thesis]. Ondokuz Mayıs Üniversitesi Sosyal Bilimler Enstitüsü.
- Oravec, J. A. (2002). Constructive approaches to Internet recreation in the workplace. *Communications of the ACM*, 45(1), 60-63.
- Örücü, E., & Yıldız, H. (2014). İşyerinde kişisel internet ve teknoloji kullanımı: Sanal kaytarma. *Ege Academic Review*, 14(1), 99–114.
- Özkalp, E., Aydın, U., & Tekeli, S. (2012). Sapkın örgütsel davranışlar ve çalışma yaşamında yeni bir olgu: Sanal kaytarma (cyberloafing) ve iş ilişkilerine etkileri. *Çimento İşveren Sendikası Dergisi*, 26(2), 18–33.
- Phillips, J. G., & Reddie, L. (2007). Decisional style and self-reported email use in the workplace. *Computers in Human Behavior*, 23(5), 2414-2428.
- Rajah, R., & Lim, V. K. (2011). Cyberloafing, Neutralization, And Organizational Citizenship Behavior. *PACIS*, 152, 24-40.
- Restubog, S. L. D., Garcia, P. R. J. M., Toledano, L. S., Amarnani, R. K., Tolentino, L. R., & Tang, R. L. (2011). Yielding to (cyber)-temptation: Exploring the buffering role of self-control in the relationship between organizational justice and cyberloafing behavior in the workplace. *Journal of Research in Personality*, 45(2), 247–251.
- Stanton, J. M. (2002). Web addict or happy employee: Company profile of the frequent internet user. *Communications of the ACM*, 45(1), 55–59.
- Van Doorn, O. N. (2011). Cyberloafing: A multi-dimensional construct placed in a theoretical

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ON BUSINESS ADMINISTRATION AND ECONOMY

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framework. Department Industrial Engineering and Innovation Sciences Eindhoven University of Technology, [Unpublished Master's Thesis], Eindhoven: Netherlands.

Vitak, J., Crouse, J., & LaRose, R. (2011). Personal internet use at work: Understanding cyberslacking. *Computers in Human Behavior*, 27(5), 1751–1759.



**THE RELATIONSHIP BETWEEN THE FIVE FACTOR PERSONALITY  
PROPERTIES AND FOREIGNIZATION: AN APPLICATION  
BANDIRMA DISTRICT EXAMPLE ON PRIVATE SECTOR  
EMPLOYEES**

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**ABSTRACT**

The aim of this study is to measure the relationship between alienation and five factor personality traits dimensions. Alienation is a concept that indicates the state of an individual's psychology. Seen in this context, the alienated individual has been removed or removed from the society of which he is a part. Perhaps the individual has become an enemy to the society and culture he / she belongs to and has assumed the role of rejecting according to time. In the five-factor personality trait theory, unlike other theories that put more emphasis on the social aspect of the person, there is a different point of view due to the behaviors of the person to different effects. It is thought that the state of alienation, which has important effects on working conditions, social relations and individual's own life, is significantly influenced by the personality traits of individuals. This study was carried out on the employees in the service, reception, kitchen, spa and housekeeping departments of the hotel enterprises in Balıkesir Bandırma to investigate the relationships between the state of alienation and the five factor personality traits of the employees. In the research, a total of 186 employees were reached from two three-star and one four-star hotel and one five-star hotel. As a result of the analysis; It has been determined that there are significant relationships between employees' five factor personality traits dimensions and alienation. In the first part of the research, the literature was reviewed. In the second part of the study, the relationship between the five-factor personality traits of private sector employees and alienation was examined. It is thought that the study will contribute to the studies in the field of personality and alienation.

**Key Words:** Five Factor Personality Characteristics, Alienation, Personality

**Giriş**

Yabancılaşma kavramının tarih boyunca insan yaşamında önemli etkileri olduğunu yapılan çalışmalardan anlaşılmaktadır. Kavramın tarihsel gelişiminde genellikle felsefe ve din alanında ortaya çıktığı, sanayi devrimi sonrasında çalışma ilişkileri, üretim ilişkileri, bireyin psikolojisi ve toplumsal koşullara odaklandığı görülmektedir. Toplumun yapısında ve bireylerde ortaya çıkan yabancılaşma durumu, özellikle sanayi devriminden sonra gelişim gösteren modern ekonomi ve toplumsal yapıda yetişmiş ve çalışan kişilerde en fazla görülen sorunlardan biridir. Bu çalışmada özel sektör çalışanları üzerine Bandırma ilçesi örneği ele alınarak, beş faktörlü kişilik özellikleri ile yabancılaşma durumu incelenmeye çalışılmıştır.

**Kavramsal Çerçeve**

Araştırmanın bu kısmında yabancılaşma ve beş büyük kişilik faktörü kavramları tanımlanmıştır.

### **Yabancılaşma Kavramı**

Yabancılaşma kavramı, insan ile ilgili çok sayıda bilim dalında ve sosyolojik düşünce tarihinde bilinen bir kavramdır. Sosyal bilimcilerin pek çoğu yabancılaşma kavramını modern toplum yaşamının bir getirisi olarak görmeye başlar. (Shajiei, 1983, s.6). Kaynakların çoğunluğunda bu kavramın yapısının insanlık tarihinin başlangıcına kadar inen izleri olduğu ifade edilmektedir. Günümüzde ise, örgütlerin hemen hepsinde farklı formlardaki izlerini gözlemlemek mümkün olmaktadır. Ayrıca yabancılaşma kavramının modern topluma ilişkin bir olgu olduğu, yerli ve yabancı alan yazında görülmektedir (Çiftçi, 2009, s.29). Farklı bilim ve sanat dallarında geçen yabancılaşma kavramı, farklı disiplinlerde özünde aynı olacak şekilde, detaylarında ise farklı şekillerde tanımlanmaktadır. (Fromm, 1996, s. 98).

Yabancılaşma kavramının Latince'deki temellerine odaklanıldığında, sözcüğün farklı bilim dalları bakımından farklı anlamlarda kullanıldığı görülmektedir. Örnek olarak hukuk biliminde, “translatio-venditio” karşılığı olarak, elden çıkarma, devir etme, mülkiyeti başkasına verme şeklinde, sosyoloji biliminde de “disiunctio-aversatio” karşılığı olarak, diğer insanlardan, Tanrı’dan, yurdundan kopmak, ayrılmak şeklinde kullanıldığı görülmektedir (Elma, 2003, s.11).

Yabancılaşma, bireyin toplumsal bir yapıya katılımı sırasında kendi öz değerlerini sınavarak, bu değerlerle toplumsal değerlerin arasında çıkan belirli bir uyumsuzluk olarak tanımlanmıştır (Shepard, 1972, s.163).

Sheeman ise, yabancılaşma kavramının tek tanımla ifade edilemeyeceğini belirterek, yabancılaşmanın mevcut toplumsal koşullar ile kişiliğin duygusal tarafına bağlı ortaya çıktığını ve bir hastalık olduğunu belirtmektedir. Seeman, bu kavramın çok boyutlu olarak sosyo-psikolojik çerçevede ele alınması gerektiğini ifade etmektedir. Seeman bu boyutları anlamsızlık, topluma yabancılaşma, güçsüzlük, kuralsızlık ve kendine yabancılaşma olarak açıklamaktadır (Seeman, 1975, s.93).

Yabancılaşma, bireyin psikolojisine ilişkin durumu belirten bir kavramdır. Bu bağlamda bakıldığında, yabancılaşmış birey, gerçekte parçası olduğu toplumdan uzaklaşmış ya da uzaklaştırılmıştır. Birey içinde olduğu topluma ve kültüre karşı belki de düşman durumuna gelmiş, zamana göre reddeden kişi rolünü üstlenmiştir. Yabancılaşma kavramı bu açıdan ele alındığında, önemli bir toplumsal içeriğe sahip olduğu ifade edilebilir (Tezcan, 1995, s.241). Yabancılaşma, insanın kendisini, özünü gerçekleştirmeyle çalışan insanla yaşamın karmaşası ve denklemleri arasında kaybolan insan, başka bir ifade ile başkaları tarafından yönlendirilen, etkilenen insan olarak iki şekle ayrılmasıdır (Kılıç, 2009, s.238).

### **Yabancılaşma Nedenleri**

Sanayi devrimi günümüz yaşam koşullarının temellerini oluşturmaktadır. Sanayi devriminden sonra yeni üretim ilişkilerinin ve çalışma koşullarının ortaya çıkışı, toplumsal koşulları nedeniyle nüfus artışı, göç, stres, ekonomik ve sosyal buhranlar, komşuluk ilişkilerinin zayıflaması, kentleşme sorunları gibi sonuçlar ortaya çıkmıştır. Bu koşullarda yaşam süren bireylerin kendilerine ve topluma yabancılaşmaları söz konusu olmuştur (Taş, 2007, s.73).

Günümüzde teknoloji, yoğun iş yaşamı, kitle iletişimi, yalıtılmış yapıda olan kent yaşamı nedeniyle bireyler olumsuz şekilde etkilenmiş ve yabancılaşma için uygun ortam yaratılmıştır. Literatürde yapılan çalışmalarda da belirtildiği üzere, yabancılaşma bireyin üyesi olduğu toplum koşullarından, iş ve sosyal çevre koşullarından, kendisinin bireysel koşullarına kadar pek çok faktörden etkilenmektedir (Çalışır, 2006, s.26-27).

Alan yazında yabancılaşma nedenleri üzerinde yapılan çalışmalarda genel olarak aşağıdaki başlıklar ortaya konmaktadır:

- Kentsel yaşam koşulları,
- Çağın iktisadi ve sınai koşulları
- Teknolojik gelişmelerin neden olduğu etkiler,
- Bireyin kültürel özellikleri,

- Bireyin aile yapısı ve kişisel özellikleri,
- Bireyin inançları, tutumları ve değerleri.

### **Yabancılaşma Boyutları**

Yapılan yabancılaşma çalışmalarının arasında bireyin işe yabancılaşması hususunda yakın zamandaki çalışmaların temeli ilk kez Melvin Seeman tarafından atılmıştır (Shin, 2000, s. 14). Seeman, yabancılaşmanın beş farklı boyutu bulunduğunu belirtmektedir. Bu boyutlar aşağıdaki gibidir (Seeman, 1983, s. 173);

*Güçsüzlük:* Kişinin inandığı olasılıkların, sahip olduğu beklentilerinin kendisi tarafından belirlenememesi, neticenin değiştirilmesi için kişinin elinden bir şey gelmediğini düşünmesi.

*Anlamsızlık:* Kişinin hayalindeki geleceğe ulaşmasına ilişkin umutsuz olması ve düşüncelerinin gerçekleşmeyeceğine karşı inancı olması.

*Kuralsızlık:* Kişinin amaç ve hedeflerine sadece toplumsal açıdan kabul görmeyecek davranışlar ile ulaşabileceğine inanması.

*Topluma yabancılaşma:* Birey açısından toplum tarafından değeri yüksek olan inançlar ve amaçların anlam ifade etmemesi.

*Kendine yabancılaşma:* Kişinin geleceğe dair beklentileri ile belirli bir davranışının uyumsuzluğu, beklentileri dışında farklı davranmasıdır

### **Yabancılaşma Sonuçları**

Yabancılaşma kavramı, tarihsel ve toplumsal gelişim sürecinde farklı yaklaşımlarla açıklanmaya, farklı anlamlarda kullanılmaya başlamış, günümüzde insanın sosyo-psikolojik hastalıkların bir ifadesi durumuna gelmiştir (Denhart, 1972). Bu hastalıkların belirgin özellikleri olan birey ve grup bakımından, kurumdan, toplumdaki veya diğer kişilerden uzaklaşmanın sadece yabancılaşma açıklanması mümkün olabilir. Yabancılaşma, üzerinden son zamanlarda özellikle durulmasının başlıca nedeni, çağın insanının yaşamış olduğu yabancılaşma sorununun topluma yansıyan yıkıcı etkilerinin olmasıdır (Aslan, 2008, s. 52).

Bayındır (2002) tarafından aktarıldığı şekilde yabancılaşmanın neden olduğu temel sonuçlar aşağıdaki gibidir:

İş tatminsizliği, iletişim sorunu, bürokrasi sempatisi, sorumluluk ve karar akmaktan kaçış, sürekli şikâyet etme durumu, yenilik korkusu ve insanlarla yakın iletişim halinde olmayı yük olarak algılama olarak belirtilmektedir.

Buna karşılık yabancılaşma durumu yaşayan kişilerde meydana gelen kişilik özellikleri ise aşağıdaki gibidir:

Yaratıcılığın yok olması, zihinsel bozukluk, yaşama karşı ilgisizlik, düzensiz yaşama sürmek, toplumsal ilişkilerden kaçınmak, kötü ilişkiler, boyun eğme, toplumun değer yargılarına, normlarına ilgisizlik ya da karşı çıkma, teslimiyetçilik, kadercilik ve sorgulamadan kabullenme olarak gösterilebilir (Yıldırım, 2009, s. 47).

### **Kişilik Kavramı**

Bireyler günlük yaşamında farklı özellikler ve davranışlar sergilemektedirler. Bazı bireylerin sanata ilgisi ağır basarken, bazıları spor etkinlikleri ile uğraşmayı tercih ederler. Bazıları eğlenceyi tercih ederken, bazıları sessiz ortamlarda bulunmayı seçerler. İnsanların birbirinden farklı davranmasını neden olan faktörlere bilimsel açıdan yanıt verme gayreti, araştırmacıları kişilik kavramına yönlendirmiştir. Kişilik kavramı bu bağlamda herkeste var olan, ancak farklı kişilerde ayırt edici bir özellik şeklinde ortaya çıkmaktadır (İbrahimoglu, 2008, s. 92).

Furnhan ve Heaven (1991) tarafından yapılan çalışmalarda kişilik kavramı psikolojik bilimi bünyesinde tanımlanmaya çalışılan karmaşık bir kavram olarak ifade edilmektedir. Kavramın karmaşıklığından dolayı basit şekilde tanımlanamamakta, olaya karşı farklı yaklaşımların olması nedeniyle tanımlanması farklı şekillerde olmaktadır (Kittisopee, 2001, s.10).

Kişilik, bireyin kendi zihinsel, ruhsal ve fizyolojik özelliklerine ilişkin bilgisini ifade etmektedir. Kişilik dışarıdaki insanlar için de bireyin toplum içindeki yaşamında farklı rollere sahip olma durumudur (Yıldız, 2008, s. 31).

Hogan (1991) göre, kişilik kavramı tanımlamalarının farklı iki yönü bulunmaktadır. Bu farklılıklardan birincisi, dışarıdaki insanlar tarafından bireyin nasıl algılandığına ilişkindir. Bunun ortaya koyduğu netice, bireyin kişilik kavramının sosyal yönü olduğuna ilişkindir. Farklılıkların ikincisi ise, bireyin kendi özelliklerine ilişkindir. Bu özellikler bireyin bir durum ya da olay karşısında gösterdiği istikrarlı davranış modellerine ilişkindir (Hogan, 1991, s. 874).

### **Kişiliği Etkileyen Faktörler**

Kişilik, karmaşık bir olgu olup, kişiliği oluşturan öğeler de çok boyutludur. Kişiliğin değerlendirilmesinde, içinde olunan zaman, geçmiş birikimler ve gelecek planları, umutları gibi bazı farklılıkların ortaya çıkmasına alt yapı oluşturacağı göz önüne alınmalıdır (Girgin, 2007, s. 43).

Kişilik kavramı diğer bir açıdan ele alındığında, kavramın geçmişin, bugünün ve geleceğin meydana getirdiği bir bütün olduğu ifade edilebilir. Bireyin yapısı hem alışkanlıklarının devam etmesini isteyen hem de geleceğe uyum sağlamaya yöneliktir. Kişilik bu durumda belirli bir zamanda geçmişin izleri, bugünün ve geleceğin eğilimleri ile oluşmaya başlayacaktır (Aktaş, 2006, s.5).

*Biyolojik ve genetik faktörler:* Genetik biliminde son zamanlarda ortaya konulan çalışmalarla bireylerin davranış farklılıklarının nedenlerini belirlemede oldukça etkili olmuştur. Genetik biliminin çalışmalarında, bireyin diğer bireylerden farklı özelliklerinin bir kısmının genetik miras ile açıklandığı görülmektedir (Plomin ve Nesselroade, 1990: 191-192).

*Ailesel faktörler:* Yapılan araştırmalarda çocuklardaki kişilik özelliklerinin bir kısmının ailedeki özelliklerden etkilendiği görülmektedir. Kız çocuğu değerlendirildiğinde, davranışlarının annesine, erkek çocuğun ise babasına olan benzerliğinin çok yüksek olasılıkta olduğu görülmektedir (Hoffeditz, 1934, s. 214).

*Sosyal ve kültürel faktörler:* Yapılan bir çalışmada, bireyin kişilik gelişiminde kültürün belli bir etkisi olduğu görülürken, kişiliğin dışadönüklük, sorumluluk, duygusal denge, açıklık gibi faktörlerinin üzerinde önemli etkisinin olmadığı görülmüştür. Çalışmalardan elde edilen bulgular doğrultusunda kültür, kişiliğin oluşması ve gelişmesinde belli etkiye sahip iken, kişiliğin gelişiminde tek etkili faktör olarak kabul edilmemelidir (Roach, 2006, s. 80-81).

*Fiziksel ve coğrafi faktörler:* Sanayi devrimi ile bireylerin yaşadıkları yerlerden genellikle iş bulma gibi sebeplerle başka yerlere göç etmeye başlamalarının kişilik özelliklerini etkilediği düşünülmektedir. Bireylerin göç sonrası adapte sürecindeki yaşadıklarının bunda etkili olduğu ifade edilmektedir (Pihl ve Caron, 1980, s. 190).

### **Kişiliğin Beş Boyutu Kuramı**

Kişiliğin beş boyutu kuramı diğer bir ifade ile beş faktör kişilik özellikleri kuramı, bir kişiyi belirli bir kişilik özelliğini gösterme düzeyine göre kişiyi sınıflandıran bir yaklaşımdır. Kişilik yapısında bireyin devamlılık gösteren ve temel özelliklerini belirten saldırganlık, tembellik, utangaçlık gibi özellikler üzerinde durmaktadır. Bu tür özellikler kişide farklı koşullarda, durumlarda istikrarlı şekilde aynen ortaya çıkıyorsa, bunlar ayırıcı özellik olarak tanımlanmaktadır. Bu özellikler bireyi diğerlerinden ayıran, istikrarlı şekilde yapılan, davranışlarının açıklanmasında kullanılan özelliklerdir (Camgöz, 2009, s. 39).

Beş faktör kişilik özellikleri kuramında, kişinin sosyal yönüne daha fazla ağırlık vermiş olan diğer kuramların tersine, kişinin farklı etkilere gösterdiği davranışlarından dolayı farklı bir bakış açısı bulunmaktadır (Isır, 2006, s.50).

### **Beş Faktör Kişilik Faktörü Kuramının Boyutları**

Thurstone (1934), Allport ve Odbert (1936) gibi araştırmacılar beş faktör kişilik modeline ilişkin ilk çalışmaları gerçekleştirmişlerdir (Demirkıran, 2006, s. 59). Costa ve McCrae (1985) tarafından beş faktör kişilik özellikleri yaklaşımı kapsamında yapılan çalışmalarda faktör adındaki davranış değişkenlerinin büyük insan grupları içinde çok yönlü ölçüm ve puanlama yapılması ile kişiliğin bel faktörden meydana geldiği belirlenmiştir (Bolat, 2008, s. 91). Araştırmacıların daha sonraki çalışmalarında ise, beş faktör modelini meydana getiren beş temel boyutu, geçimlilik, dışa dönüklük, açıklık, duygusal dengesizlik ve sorumluluk olarak tanımlamışlardır (Somer ve Goldberg, 1999, s. 431-450).

*Dışa dönüklük:* dışa dönük bireyler, içinde oldukları durumlarda belli oranda hırslı, meyilli, baskın ve tutkulu tiplerdir (Trouba, 2007, s. 9).

*Uyumluluk:* Bireylerde uyumluluk kişilik özellikleri bulunuyorsa, diğer bireylere göre işlerde iş birliği yapma yanlısı, sevecen, nazik, esnek, rekabet yerine beraber hareket etme eğiliminde olan kişilerdir (Moody, 2007, s. 28).

*Duygusal dengesizlik:* Bu faktör, duygusal denge ve olumlu psikolojik uyum noksanlığını ifade etmektedir. Duygusal dengesizlik boyutu, bireyin kişiliğindeki duygusal dengeye ilişkin çıktıları açığa çıkarmaktadır (Trouba, 2007, s. 9).

*Sorumluluk:* Bu kişilik özelliği bulunan bireylerde dürüstlük, sorumluluk, ısrarcılık, güvenirlilik, dikkat gibi nitelikler ön plandadır (Church, 1993, s. 10).

*Açıklık:* Bu boyutta kişilik özellikleri bulunan bireyler hayal gücü yüksek, meraklı, sanata meyilli, zeki, bilgili kişilerdir (Church, 1993, s. 10).

### **Literatür Taraması**

Araştırmanın bu kısmında yabancılaşma ve beş faktör kişilik özellikleri üzerine yapılmış çalışmalar incelenmiştir.

### **Yabancılaşma ile İlgili Çalışmalar**

İlgili literatür tarandığında yabancılaşma, “kişilerin kimliğini kaybetmesi durumu” (Bell, 1959: 933), “kariyer hedeflerinden uzaklaşma ve profesyonel normlara uyum sağlayamamadan oluşan olumsuz duygular” (Aiken ve Hage 1966: 497). “kavram olarak bireylerin kendilerini bir bütün olarak algılamaması durumu” (Bonjean ve Grimes, 1970: 366), çalışmaya karşı alaka göstermemek (Hirschfeld ve Field, 2000: 790), gibi farklı tanımlarla tanımlanmıştır.

Blauner (1964) ise işe yabancılaşmayı genel olarak, “işin; özerklik, sorumluluk, toplumsal etkileşim ve kendini gerçekleştirme gibi kişinin birey olarak değerini ortaya koyan şartların ve ortamların oluşmaması durumu” olarak tanımlamaktadır. Yabancılaşma kavramı kuramsal boyutta ele almanın ötesinde deneysel çalışmalar da yapılarak ölçülebilir duruma getirilmeye çalışılmıştır. Çalışmalarıyla adını duyuran Melvin Seeman yabancılaşmayı; güçsüzlük, anlamsızlık, kuralsızlık, yalıtılmışlık ve özüne yabancılaşma (yalıtılmışlık) olarak beş farklı şekilde boyutlandırmıştır (Seeman, 1959).

### **Beş Faktör Kişilik Özellikleri ile İlgili Çalışmalar**

Atak (2009), 18-25 yaş aralığında 220 genç yetişkinler üzerine yapmış olduğu araştırmanın sonucunda beş faktör kişilik özelliklerinin yalnızlaşma üzerindeki etkisi olduğu belirtilmiştir. Çalışma sonucuna göre, beş faktör kişilik özellikleri boyutlarından duygusal denge pozitif yönde yalnızlaşma ile ilişkiliyken, dışadönüklük ve uyumluluk boyutlarının yalnızlık ile negatif yönde ilişkili olduğu sonucuna varılmıştır.

İş yaşamında yalnızlık ölçeğini geliştiren Wright (2005), iş yaşamında yalnızlık ve beş faktör kişilik özelliklerinden dışadönüklük ve duygusal denge arasındaki ilişkiyi incelemeye yönelik, 514 çalışanla bir araştırma yapmıştır. Çalışmada, beş faktör kişilik özelliklerinden dışadönüklük boyutunun iş yaşamında yalnızlığı negatif yönde, duygusal dengenin ise pozitif yönde etkilediği sonucuna varılmıştır.

Çalışmada duygusal denge problemi yaşayan kişilerin fazla endişeli ve stresli olmaları nedeniyle başkalarıyla ilişkilerinden memnuniyetsiz oldukları ve diğer kişileri red ederek yalnız kaldıkları belirtilmiştir. İş hayatında yalnızlığı etkileyen unsurları belirlemeye yönelik Doğan ve diğ. (2009) tarafından yapılan diğer bir araştırma kamu ve özel sektörde çalışan 18-52 yaş aralığındaki 436 çalışanla yapılmıştır. Araştırmanın sonucuna göre bireylerdeki iş hayatındaki yalnızlık duygusunu kişilik farklılıklarının yanısıra demografik özelliklerin oluşturduğu belirtmiştir. Bunlar ise; bireylerin iş hayatındaki kıdemleri ve aylık gelirleri şeklinde sıralanmıştır. Çetin ve Alacalar'ın (2016), 201 akademik personel üzerinde yaptığı çalışma, yukarıda bahsi geçen çalışmaları destekler nitelikte olup, beş faktör kişilik özellikleri boyutlarından duygusal denge, uyumluluk ve dışadönüklük boyutlarının iş hayatında yalnızlığı negatif yönde etkilediği, deneyime açıklık boyutunun iş hayatında yalnızlığı pozitif yönde anlamlı etkilediği ve sorumluluk boyutunun ise iş hayatında yalnızlığı etkilemediği sonucuna varılmıştır.

### **Yabancılaşma ve Kişilik Arasındaki İlişki**

Yabancılaşma ile kişilik arasındaki ilişki konusunda alan yazındaki çalışma sayısı yok denebilecek kadar azdır. Bu nedenle kavramlar arasındaki değerlendirmelerin genellikle yorum ve öngörülere dayandırılması zorunlu olmuştur. Kişilik kavramı genel olarak bireyleri diğer bireylerden ayıran fark istikrarlı ve yaratıcı davranış modelleri, düşünce sistemleri ve değer yargıları şeklinde tanımlanabilir.

Bireylerin kişilik özelliklerinin kendi tepkilerine yansıdığı fikrinden hareketle, bireylerin yabancılaşmaya neden olan etkenlerden kaynaklanan etkileri algılamaları ve değerlendirmelerinde, aynı zamanda bireyde yabancılaşma durumunun olduğuna dair tepkileri ortaya koymalarında, kişilik ve yabancılaşma arasında etkileşimlerin olabileceği düşünülmektedir. Bireye dışarıdan yönelen bir tepki, farklı bireylerde olan farklı kişilik özelliklerinden dolayı farklı tepkiler ve farklı algılar ortaya çıkarmakta, bireylerin etkilenmesi farklı olmaktadır. Yabancılaşma ve kişilik arasında bu şekilde teorik bir modelin bulunduğu düşünülmektedir.

Bireyin duygu ve düşüncelerinin de dışarıdan gelecek etkilerle değişeceği kabul edilirse, bireyin iş, okul, toplum gibi kendi dışındaki olgulara yabancılaşması, zaman içinde duygusal ve düşünsel değişimle daha önce kendinde bulduğu ile şimdi buldukları arasında bağ kuramayarak, kendine yabancılaşması durumlarının özde dış kaynaklı olacağı kabul edilebilir. Bireyin kendine yabancılaşma halini yaşaması durumunda bile kişiliğinde oluşan değişimlerin bir kısmı çevresel etkilerden dolayı oluşmaktadır.

### **Yöntem**

#### **Araştırmanın Amacı**

Bu çalışmada amaç, Bandırmada faaliyet gösteren otellerde çalışan personellerin işe yabancılaşma ile beş büyük faktör kişilik özelliği ile yabancılaşma arasında ne tür bir ilişki olduğunu tespit etmektir.

#### **Araştırmanın Önemi**

Bu çalışmayla, otel sektöründe çalışan personellerin öncelikle demografik özellikleri tespit edilmiştir. Daha sonra çalışanlara yöneltilen işe yabancılaşma ve beş faktör kişilik özelliklerine ilişkin sorularla çalışanların yabancılaşma ile beş faktör kişilik özelliklerinin boyutları arasındaki ilişki ortaya konulmuştur.

### Araştırmanın Evreni ve Örneklemi

Araştırma da verilerin toplanmasında anket kullanılmıştır. Balıkesir Bandırmada bulunan otel işletmelerinin resepsiyon, servis, mutfak ve kat hizmetleri departmanlarındaki çalışanlar üzerinde gerçekleştirilmiştir.

Araştırmada, 2 adet üç yıldızlı bir adet dört yıldızlı 1 adet beş yıldızlı otel işletmesinden toplam 186 çalışana ulaşılmış ve yapılan analizler sonucunda; çalışanların beş faktör kişilik özellikleri boyutları ile yabancılaşmanın arasında anlamlı ilişkiler olduğu tespit edilmiştir. Araştırmada korelasyon ve regresyon analizi kullanılmıştır.

### Araştırmada Kullanılan Ölçekler

Beş faktör kişilik özellikleri ölçeği ise John, Donahue ve Kentle(1991) tarafından geliştirilmiştir. Ölçek, Alkan (2007) tarafından Türkçe'ye uyarlanmış, gerekli geçerlilik ve güvenilirlik çalışmaları yapılmıştır. 5'li likert ile katılım ölçülmüştür. Araştırmada yer alan maddeler "Kesinlikle Katılmıyorum" ile "Kesinlikle Katılıyorum" arasında değişen beşli likert tipindedir. Yabancılaşma ölçeği ise *İşe yabancılaşmayı* ölçmek için Salvotere Maddi ve "An Alienation Test" tarafından geliştirilen 10 ifadeden oluşan bir ölçek kullanılmıştır

### Araştırmanın Hipotezleri

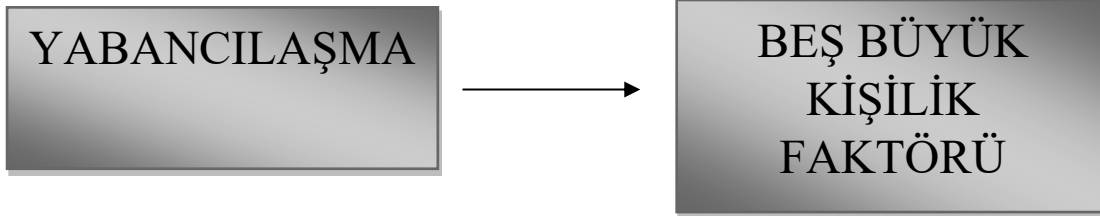
H1 İşe yabancılaşma boyutu ile beş kişilik faktörünün dışa sorumluluk boyutu arasında pozitif yönde anlamlı bir ilişki vardır.

H2: İşe yabancılaşma boyutu ile beş faktör kişilik özelliklerinin nörotizm boyutu ile pozitif yönde anlamlı bir ilişkisi vardır.

H3: Açıklık kişilik özelliğinin yabancılaşma üzerinde etkisi vardır.

H4: Uyumluluk kişilik özelliğinin yabancılaşma üzerin de etkisi vardır.

### Araştırmanın Modeli



### Bulgular

**Tablo 1. Tanımlayıcı istatistikler**

	Minimum	Maximum	Ortalama	Standart Sapma	Varyans	Çarpıklık		Basıklık	
	İstatistik	İstatistik	İstatistik	İstatistik	İstatistik	İstatistik	Std. Hata	İstatistik	Std. Hata
Dışa dönüklük	1,00	5,00	2,3925	1,213333	1,08	1,08	,178	,276	,355
Uyumluluk	2,86	5,00	3,9124	,58177	,028	,028	,178	,655	,355
Sorumluluk	2,38	4,63	3,6815	,54293	-,260	-,260	,178	-,222	,355
Nörotizm	2,30	5,00	4,0484	,64525	-,734	-,734	,178	,530	,355
Açıklık	1,00	4,43	2,8018	,76724	-,170	-,170	,178	,449	,355
Yabancılaşma	2,09	5,00	3,9355	,62608	-,959	-,959	,178	,805	,355

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Tablo 1 de yer alan bulgularda bağımlı değişken olan yabancılaşmanın, bağımsız değişken olan beş faktör kişilik özellikleri ve alt boyutlarının (dışa dönüklük, uyumluluk, sorumluluk, nörotizm, açıklık, yabancılaşma, çalışma süresi) minimum, maksimum değerleri, ortalamaları, standart sapmaları, varyansları, çarpıklık ve basıklık değerleri ele alınmıştır. Huck'a (2008) göre normal dağılım gösteren bir veri setinde çarpıklık ve basıklık değerlerinin -1 ile +1 arasında olması gerekir (Tok, Doğan, 2019).

**Tablo 2. Katılımcıların Demografik Bilgileri**

Değişkenler		FREKANS	YÜZDE
CİNSİYET	Kadın	65	34.9
	Erkek	121	65.1
MEDENİ DURUM	Evli	60	32.3
	Bekar	126	67.7
YAŞ	18-25	18	16.4
	26-30	35	31.8
	31-40	44	40.0
	41-50	10	9.1
	51 ve üzeri	3	2.7
EĞİTİM DURUMU	Lise	29	15.6
	Ön Lisans	127	68.3
	Lisans	29	15.6
	Lisansüstü	1	,5
ÇALIŞMA SÜRESİ	1 yıldan az	36	19.4
	1-5	95	51.1
	6-10	25	13.4
	11-15	6	3.2
	16 ve üzeri	24	12.9

Katılımcıların cinsiyet, medeni durum, yaş, eğitim durumu, çalışma süresi ile çalıştığı sektör dağılımları Tablo 2 de verilmektedir. Araştırmaya katılanların % 34.9 unu kadın (65 kişi), %65.1 ini ise erkek (121 kişi) katılımcı oluşturmaktadır. Katılımcıların medeni durumu ele alındığında % 32.3 ünün evli (60kişi), %67.7 sinin bekar (126 kişi) olduğu tespit edilmektedir. Katılımcıların yaş aralıkları incelendiğinde en fazla katılım gösteren yaş aralığı % 40.0 lık bir oranla 31-40 yaş aralığıdır. (44 kişi) Eğitim durumu incelendiğinde katılımcıların % 68.3 ünün ( 127 kişi ) önlisans mezunu olduğu tespit edilmiştir. Çalışma sürelerine bakıldığında katılımcıların % 51.1 i (95kişi) 1-5 yıl arasındadır.

**Tablo 5. Güvenilirlik Analizi**

	Alpha	N of Items
YABANCILAŞMA	,816	10
BEŞ FAKTÖR KİŞİLİK ÖZELLİĞİ	,695	44



Yabancılaşma ve beş faktör kişilik ölçekleri sırasıyla güvenilirlik analizine tabi tutulmuştur. Tablo 5 de yer alan sonuçlara göre yabancılaşmanın güvenilirlik kat sayısı .816, beş faktör kişilik özelliklerinin güvenilirlik kat sayısı ise .695 dir.

**Tablo 6. Yabancılaşma ile beş faktör kişilik boyutları arasındaki ilişkiye yönelik korelasyon testi analiz sonuçları**

<i>İY</i>	<i>DD</i>	<i>UY</i>	<i>SR</i>	<i>NR</i>	<i>AÇ</i>
<b>İy-İşe Yabancılaşma</b>	1				
<b>Dd-Dışa Dönüklük</b>	,992	1			
<b>Uy-Uyumluluk</b>	,785	-,000**	1		
<b>Sr-Sorumluluk</b>	,000**	,000**	,115	1	
<b>Nr-Nörotizm</b>	,001**	,788	,143 000	1	
<b>Aç-Açıklık</b>	,323	,010**	,001** 000	000	1

**İlişki 0.05 düzeyinde anlamlıdır. \***

Tablo 6 da bulunan neticeye göre; beş faktör kişilik kavramının sorumluluk boyutu ile yabancılaşmanın pozitif yönlü anlamlı bir ilişki söz konusudur. ( $r(141) = .16, p < .05$ ) Bu doğrultu da H1 hipotezimiz kabul edilmiştir. Aynı zamanda nörotizm boyutunun yabancılaşma ile arasında da pozitif yönlü anlamlı bir ilişki tespit edilmiştir. ( $r(141) = .25, p < .05$ ) Bu durumda H1 ve H2 hipotezimiz kabul edilmiştir Örneklem sayısı 200'den az olduğu için faktör analizi yapılmamıştır. Faktör analizi için örneklem sayısının 200-250 civarında olması yeterlidir. (Gürbüz, Şahin, 2018)

### **Beş faktör kişilik özelliklerinin yabancılaşma ile ilişkisini gösteren basit ve çoklu regresyon analiz sonuçları**

**Tablo 7. Basit regresyon modeline ait kat sayılar**

	<i>B</i>	<i>BETA</i>	<i>t</i>	<i>Anlamlılık Düzeyi (p)</i>
<b>DIŞA DÖNÜKLÜK</b>	-.115	-.069	-,875	.383

Bağımlı değişken: Yabancılaşma

\*  $p < 0.05$

Katılımcıların duygusal emeklerinin işe tutkunluklarını ne ölçüde etkilediğini irdelemek için basit regresyon analizi yapılmıştır. Tablo 7 de basit regresyon modeline ait kat sayılar yer almaktadır. Bu tabloya göre basit regresyon analizi sonuçları istatistiksel olarak anlamlı olmadığı görülmüştür. ( $p > 0.05$ )

**Tablo 8: Çoklu regresyon modeline ait kat sayılar**

	<i>B</i>	<i>BETA</i>	<i>t</i>	<i>Anlamlılık Düzeyi (p)</i>
<b>UYUMLULUK</b>	.391	.220	2,781	.006
<b>SORUMLULUK</b>	.567	.379	-4.130	.000
<b>AÇIKLIK</b>	.439	.285	3.279	.001

BAĞIMLI DEĞİŞKEN: YABANCILAŞMA

\*  $p < 0.05$

Tablo 8 de beş faktör kişilik boyutlarının yabancılaşma üzerindeki etkisi incelenmiştir. Verilen tabloya göre beş faktör kişilik kavramının iki boyutu (sorumluluk, açıklık) yabancılaşma üzerinde anlamlı bir etkiye sahip olduğu görülmektedir. ( $p > 0.05$ ) Bu durumda H3 ve H4 hipotezleri kabul edilmiştir.

## Tartışma ve Sonuç

Bu çalışmanın amacı yabancılaşma ile beş faktör kişilik özellikleri boyutları arasındaki ilişkileri ölçmektir. Yapılan analiz sonuçları bu hipotezi destekler sonuçlar ortaya konmuştur. Yabancılaşma ile beş faktör kişilik özellikleri boyutları arasında anlamlı ilişkiler tespit edilmiştir. Çalışma Balıkesir'in Bandırma ilçesi ile sınırlıdır. Elde edilen bilgi ve bulguların sektöre genellenmesi için, konunun farklı araştırmacılar tarafından da ele araştırılması gerektiği düşünülmektedir. Bu çalışma doğrultusunda otel sektöründe çalışanların iş yerinde yeterince açık, uyumlu ve sorumlu olmadığına işe yabancılaşma oranlarının arttığını göstermektedir. Araştırmanın farklı sektörlerde de yapılması daha farklı bakış açılarına sahip olmak için faydalı olacaktır.

## KAYNAKÇA

- Doğan, H. ve Tok, T. (2019) Okul Yönetici Rollerini Ölçeği: Bir Ölçek Geliştirme Çalışması. Araştırma Makalesi, 5(1), 5.
- Gürbüz, S. ve Şahin, F. (2018) Sosyal Bilimlerde Araştırma Yöntemleri, Ankara: Seçkin Akademi.
- Aktaş, A., "Farklı Kültürlerdeki Yöneticilerin Kişilik Özelliklerine Dayanarak Liderlik Anlayışlarının Belirlenmesi: Türk ve Amerikan Otel Yöneticilerinin Karşılaştırmalı Analizi", Yüksek Lisans Tezi, Akdeniz Üniversitesi Sosyal Bilimler Enstitüsü, Antalya, 2006.
- McCrae, R. R. , Costa, P. T.(2006). "Perspectives de la Theorie des Cinq Facteurs : Traits et Culture", Psychologie Française, 51.
- Aslan, H., "Endüstri Meslek Liselerinde Kültür Dersleri Öğretmenlerinin Mesleğe ve Kuruma Yabancılaşma Düzeyleri", Yüksek Lisans Tezi, Marmara Üniversitesi Fen Bilimleri Enstitüsü, İstanbul, 2008.
- Bayındır, B., "Ortaöğretim Dal Öğretmenlerinin Mesleğe Yabancılaşmaları ile Öğretme Öğrenme Sürecindeki Davranışları Arasındaki İlişki". Yayımlanmamış Yüksek Lisans Tezi, Anadolu Üniversitesi Eğitim Bilimleri Enstitüsü, Eskişehir, 2002.
- Bolat, T., "Dönüşümcü Liderlik Personeli Güçlendirme ve Örgütsel Vatandaşlık İlişkisi", Detay Yayıncılık, Ankara, 2008.
- Camgöz, S. M., "Kişilik Özellikleri ile Finansal Performans Arasındaki İlişkiler: A Tipi Yatırım Fonu Yöneticileri Üzerinde Bir Değerlendirme", Doktora Tezi, Hacettepe Üniversitesi Sosyal Bilimler Enstitüsü, Ankara, 2009.

- Church, M. K., "Investigation and Measurement of Personality Structure in a Non-Western Culture: Relating Indigenous Philipinne Dimensions to the Big Five Model", Doctoral Dissertation, Washington State University, Washington, 1993.
- Demirkıran, S., "Özel Sektördeki Yöneticilerin ve Çalışanların Bağlanma Stilleri, Kontrol Odağı İşdoyumunu ve Beş Faktör Kişilik Özelliklerinin Araştırılması", Yayınlanmamış Yüksek Lisans Tezi, Ankara Üniversitesi Sosyal Bilimler Enstitüsü, Ankara, 2006.
- Denhardt, R. R., "Yabancılaşma ve Katılma Sorunu". (Çev. Emine Örs), AMME İdaresi Dergisi, (1972). Hacettepe Üniversitesi Sosyal Bilimler Enstitüsü, Ankara, 2009.
- Church, M. K., "Investigation and Measurement of Personality Structure in a Non-Western Culture: Relating Indigenous Philipinne Dimensions to the Big Five Model", Doctoral Dissertation, Washington State University, Washington, 1993.
- Demirkıran, S., "Özel Sektördeki Yöneticilerin ve Çalışanların Bağlanma Stilleri, Kontrol Odağı İşdoyumunu ve Beş Faktör Kişilik Özelliklerinin Araştırılması", Yayınlanmamış Yüksek Lisans Tezi, Ankara Üniversitesi Sosyal Bilimler Enstitüsü, Ankara, 2006.
- Denhardt, R. R., "Yabancılaşma ve Katılma Sorunu". (Çev. Emine Örs), AMME İdaresi Dergisi, (1972).
- Elma, C. "İlköğretim Okulu Öğretmenlerinin İşe Yabancılaşması: Ankara İli Örneği", Doktora Tezi, Ankara Üniversitesi Sosyal Bilimler Enstitüsü, Ankara, 2003.
- Fromm, E., "Özgürlükten Kaçış", Payel Yayınevi, İstanbul, 1996.
- Furnham, A., ve Heaven, P., "Personality and Work", Personality and Social Behavior, Oxford University Press Inc., New York, 1999.
- Girgin, B., "Beş Faktör Kişilik Modelinin İş Yerinde Duygusal Tacize (Mobbing) Etkileri", Yüksek Lisans Tezi, Dumlupınar Üniversitesi Sosyal Bilimler Enstitüsü, Kütahya, 2007.
- Hoffeditz, E. L., "Family Resemblances in Personality Traits", The Journal of Personal Psychology, Cilt: 5, No:2, (1934).
- Hogan, R., "Personality and Personality Measurement", Handbook of Industrial and Organizational Psychology, Cilt: 2, (1991).
- Isır, T., "Örgütlerde Personel Seçim Süreci: Bir Kamu Kurumundaki Yönetici Personelin Kişilik Özelliklerinin Tespit Edilerek Personel Seçim Sürecinin İyileştirilmesi Üzerine Bir Araştırma", Doktora Tezi, Çukurova Üniversitesi Sosyal Bilimler Enstitüsü, Adana, 2006.
- İbrahimoglu, N., "Kişilik Özellikleri Açısından Örgüt-Kariyer Bağlılık Düzeyini Arttırmada Sosyalizasyon ve Mentor Etkisi: Bir Örgüt Geliştirme Modeli" Doktora Tezi, Hacettepe Üniversitesi Sosyal Bilimler Enstitüsü, Ankara, 2008.
- Kılıç, H., "Sosyo-Ekonomik Değişkenler Açısından Eğitimde Yabancılaşma Olgusu ve Öğretmen", Yüksek Lisans Tezi, Mersin Üniversitesi Sosyal Bilimler Enstitüsü, Mersin, 2009.
- Kittisopee, T., "The Influences of Personality, Social Cognition and Environmental Factors on Pharmaceutical Care", Doctoral Dissertation, The University of Iowa, Iowa, 2001.
- Moody, M. C., "Adaptive Behavior in Intercultural Environments: The Relationship Between Cultural Intelligence Factors and Big Five Personality Traits", Doctoral Dissertation, George Washington University, Washington, 2007.
- Pihl, R. O., Caron, M., "The Relationship Between Geographic Mobility, Adjustment, and Personality", Journal of Clinical Psychology, Cilt: 36, No: 1, (1980).
- Plomin, R. ve Nesselrode, J. R., "Behavioral Genetics and Personality Change", Journal of Personality, Cilt:58, No:1, (1990).
- Roach, P. D., "Ecilt:utionary Theory and Birth Order Effects on Big Five Personality Traits Among the Shuar of Amazonian Ecuador: The First Cross-Cultural Test", Doctoral Dissertation, University of Oregon, Oregon, 2006.
- Seeman, M., "Alienation Motifs in Contemporary Theorizing: The Hidden Continuity of the Classic Themes", Rnbh`k- Orxbgnknfx- Pt`qsdkqx+ Vol. 46, No. 3, 1983.
- Seeman, M., "Alienation Studies", Annual Review of Sociology, Cilt.1, (1975).
- Shajiei, S., "A Marxist Approach to the Problem of Alienation", Doctoral Dissertation, Kansas State University, Department of Sociology, Kansas, 1983.
- Shepard, J. M., "Alienation as A Process: Work as A Case in Point", The Sociological Quarterly, Vo.13, No.2, (1972).

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- Shin, J. H., “Is There Work Alienation in Post-Industrial America? An Analysis of Technical and Social Relations in Today’s Changing Labor Force”, Doctoral Dissertation, Indiana University, Indiana, 2000.
- Somer, O., ve Goldberg, L.R., “The Structure of Turkish Trait Descriptive Adjectives”, Journal of Personality and Social Psychology, No:76, (1999).
- Tezcan, M., “Sosyolojiye Giriş”, Şafak Matbaacılık, Ankara 2008.

## THE ROLE OF RESEARCH AND DEVELOPMENT EXPENDITURES ON HIGH TECHNOLOGY PRODUCT EXPORTS IN OECD COUNTRIES

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### ABSTRACT

High-tech product exports, which provide great added value, are of great importance both in establishing foreign trade balance and achieving sustainable growth. For this reason, policy implementations aiming to increase the exports of high technology products have recently taken up a large place. Accordingly, researches on the analysis of the factors that determine high technology product exports have increased in the economics literature. From this point of view, the factors affecting the export of high technology products have been examined in the OECD countries in our study. The results of Panel analysis clearly demonstrated that Research and Development Expenditures have an impact on high technology product exports. Therefore, it is highly recommended to allocate more resources to R&D activities in order to provide a permanent balance in the current account and achieve a sustainable growth level, by increasing the level of high technology product exports.

**Keywords:** High Technology Product Export, R-D Expenditure, Panel Analysis.

### Giriş

Günümüzde yüksek refah seviyesine ulaşmış gelişmiş ülkeler ekonomik büyüme oranlarında sürekli bir biçimde artış sağlayabilmektedir. Öte yandan büyüme oranlarında görülen bu artışlara iç talepten daha çok dış talebin yani ihracat hacminin kaynaklık ettiği belirlenmektedir. Böylece yüksek büyüme oranlarına sürekli bir biçimde ulaşip refah toplumu olabilmek için ihracat kapasitesinin artırılması önemli bir ön koşul haline gelmiştir. Bugün refah toplumu olmuş gelişmiş ülkelerin dış ticaret bilançoları incelendiğinde ihracat hacimlerinin ithalat miktarlarının çok ötesine geçmesi sonucu dış ticaret hesabında büyük miktarda dış fazla verdikleri görülmektedir. Öte yandan henüz yeterli refah seviyesine ulaşamamış gelişmekte olan ülkeler ise ihracat seviyelerinin çok ötesinde gerçekleştirdikleri ithalat ile dış ticaret hesabında büyük miktarda açık vermektedir. Gelişmiş ve gelişmekte olan ülkelerin dış ticaret bilanço hesaplarında görülen bu farklılık çok açık bir biçimde refah toplumu olabilmek için iç talepten çok daha fazla dış talep kaynaklı büyümenin gerekli olduğunu göstermektedir.

Gelişmiş ülkeler uluslararası ticarete rekabet üstünlüğü elde ettikleri için üretim yapılarını dış talebin ihtiyaçlarını karşılamak üzere organize etme ve böylece ihracat seviyelerini artırma şansına kavuşabilmektedir. Gelişmiş ülkelerin yüksek rekabet üstünlüğünün kaynakları incelendiğinde ise bu ülkelerin yüksek teknolojiye sahip oldukları görülmektedir. Böylece uluslararası ticarete rekabet üstünlüğü elde ederek ihracat kapasitesini artırmak için ekonominin üretim yapısının yüksek teknolojiye sahip olması temel bir ön koşuldur. Çünkü yüksek teknolojiye sahip üretim yapısına sahip olan gelişmekte olan ülkeler üretim süreçlerinde büyük bir verimlilik sağlamaktadır. Üretim süreçlerinde sağlanan verimlilik ile üretilen mal ve hizmetler hem fiyat hem de kalite ölçütleri bakımından tüketiciler için çok daha cazip hale gelmektedir. Buna göre yüksek teknolojik üretim kapasitesinin verimlilik alanında sağladığı avantajlarla uluslararası ticarete rekabet üstünlüğü sunması gelişmiş ülkelerin ihracata dayalı istikrarlı büyüme oranlarına ulaşmalarına imkân vermektedir.

Yukarıdaki açıklamalardan ortaya konduğu şekilde yüksek teknoloji üretim yeteneğine sahip olarak uluslararası ticarete yüksek ihracat kapasitesine ulaşmak iktisat politikacıları için önemli bir hedef haline gelmiştir. Ancak buradaki amaç “ihracatı ne şekilde olursa olsun artırmak” biçiminde algılanmamalıdır. Özellikle gelişmekte olan ülkelerde düşük teknoloji üretim süreçlerinde elde edilen bazı ürünlerle belirli bir ihracat seviyesine ulaşıldığı görülmektedir. Bununla birlikte söz konusu ihracat niteliği itibarı ile sürdürülebilir yüksek büyüme oranları için yeterli katkıyı sağlayamaz. Çünkü ihraç edilen ürünler düşük teknoloji ile üretildiğinden katma değeri de düşük seviyede kalmaktadır. Dolayısıyla gelişmekte olan ülkelerin ihraç ettikleri bu tip ürünlerle yüksek teknoloji ürün ihracatı yaparak büyük miktarda katma değer sağlayan gelişmiş ülkelere karşı rekabet üstünlüğü sağlaması söz konusu değildir. Bunun yerine gelişmekte olan ülkeler yüksek teknoloji ürün ihracatını artıracak şekilde üretim yapılarında dönüşüm sağlamaya çalışmalıdır. Öte yandan gelişmiş ülkelerde uluslararası ticarete nispi olarak sağladıkları üstünlüğü devam ettirmek için üretim süreçlerinde kullandıkları teknolojiyi sürekli olarak geliştirmek zorundadır.

Sonuç olarak üretim süreçlerinde yüksek teknoloji kullanılması yolu ile uluslararası ticarete rekabet üstünlüğüne sahip olmak ve böylece katma değeri yüksek ihracat yapabilmek hem gelişmiş hem de gelişmekte olan ülkelerin temel hedefidir. Gelişmiş ülkeler sahip oldukları üstün konumu korumak üzere bu hedef için çalışırken gelişmekte olan ülkeler içinde buldukları dezavantajlı konumdan kurtulmak için gayret etmektedir. Böylece bütün ülkelerdeki politika yapıcılarının yüksek teknoloji ürün ihracatını artırmak yönünde politikalarını tasarladıkları görülmektedir. İktisatçılar ise yüksek teknoloji üretim yapısı dolayısı ile katma değeri yüksek ihracat kapasitesinin oluşumunda etkili olan faktörlerin belirlenmesine yönelik olarak araştırmalarını yoğunlaştırmıştır. Bu kapsamda iktisat literatürü ve politika uygulamaları incelendiğinde ülke içinde gerçekleştirilen Araştırma ve Geliştirme (AR-GE) harcamalarının yüksek teknoloji üretimi ve dolayısı ile ürün ihracatının artırılmasında etkili olduğuna ilişkin büyük bir konsensüs sağlandığı görülmektedir. Öyle ki literatürdeki birçok ampirik çalışmada AR-GE harcamaları ile yüksek teknoloji üretim arasındaki çok yakın ilişki olduğu tespit edilmiştir. Öte yandan birçok ulusal ve uluslararası ekonomik kuruluş AR-GE harcamalarının artırılmasına yönelik uygulamaları yüksek teknoloji ihracat kapasitesinin geliştirilmesinde en etkili politika seçeneği olarak belirlemiştir.

Çalışmamız kapsamında gerek literatürde ve gerekse uygulamada büyük kabul gören, AR-GE harcamaları ile yüksek teknoloji ürün ihracatı arasındaki yakın ilişkiye ait görüş sınanacaktır. Bu kapsamda 35 OECD ülkesine ait 2007 ile 2018 arasındaki veriler, Westerlund ve Edgerton Panel Eşbütnleşme ve Dumitrescu ve Hurlin Nedensellik analizi yöntemi ile analiz edilecektir. AR-GE harcamaları özel ve kamu kesimi tarafından gerçekleştirilen ilgili harcamaların toplamı olarak hesaplanmıştır. Ülkelerin sahip oldukları üretim teknolojisi seviyesini göstermek için gerçekleştirilen toplam ihracat içindeki yüksek teknoloji ürün miktarı ise diğer değişken olarak ele alınmıştır. Çalışmanın ikinci bölümünde AR-GE harcamaları ile başta yüksek teknoloji ürün ihracat hacmi olmak üzere değişik biçimlerde ifade edilen üretim teknolojisi seviyesi arasındaki ilişkiyi analiz eden ampirik çalışmalar gözden geçirilmiştir. Üçüncü bölümde araştırmada kullanılan veri ve ekonometrik yöntem hakkında bilgiler verilmesi yanında ulaşılan ampirik sonuçlar paylaşılmıştır. Sonuç kısmında elde edilen bulgular değerlendirilerek bazı politika çıkarımlarında bulunulmuştur.

### Literatür

Neoklasik iktisat yaklaşımının öngördüğü çerçevede uzunca bir süre teknoloji dışsal bir değişken olarak kabul edilmiştir. Bu durumun önemli bir sonucu olarak teknolojinin geliştirilmesine ilişkin kapsamlı bir iktisat politikası seti gündeme gelmemiştir. Ancak Lucas (1988), Romer (1990), Grossman ve Helpman (1991) ile Aghion ve Howitt (1992) tarafından geliştirilen İçsel Büyüme Teorileri çerçevesinde teknolojinin gelişim dinamiklerinin ekonominin kendi içinde üretildiğini gösteren modeller ortaya

konmuştur. İçsel büyüme teorileri üretim sürecinde sadece yeni teknolojilerin önemini vurgulamamış aynı zamanda teknolojik gelişmelerin kaynaklarına ilişkin de önemli tespitlerde bulunmuştur. Böylece ekonomik modellerde teknolojinin içsel bir olgu olarak kabul edilmesi ile birlikte iktisat politikaları anlayışında önemli bir dönüşüm yaşanmıştır. Bu bağlamda, içsel büyüme teorileri çerçevesinde üretim teknolojisinin gelişmesine katkısı olduğu düşünülen birçok faktör iktisat politikalarının öznesi haline gelmiştir. Bunlar içinde özellikle AR-GE faaliyetlerini teknolojik gelişmenin temel kaynağı olarak gören ve böylece söz konusu faaliyetlerin desteklenmesini politika tasarım sürecinin merkezine alan yaklaşımlar büyük bir etki yaratmıştır.

AR-GE faaliyetlerini temel dinamik olarak belirleyen modellerde üretim teknolojilerinin geliştirilmesi sürecinde kullanılan yeni bilgiler ancak AR-GE faaliyetleri sonucu elde edilebilmektedir. Böylece AR-GE faaliyetleri insan ihtiyaçlarının karşılama yöntemi olarak ifade edebileceğimiz üretim teknolojisinin gelişmesinde en önemli kaynaktır. Buna göre AR-GE faaliyetleri, genel bir ifade ile, mevcut bilgi stokunun üretim sürecinde yeni uygulamalar tasarlanması yönünde geliştirilmesini amaçlayan sistematik düzeyde yürütülen yaratıcı çalışmalar olarak tanımlanabilir. Bu bağlamda AR-GE faaliyetleri toplumsal refahı artıran birçok ekonomik gösterge üzerinde olumlu etki yapacak bir potansiyele sahiptir. Söz konusu etkilerin ölçülmesi amacı ile iktisat literatüründe birçok ampirik çalışma gerçekleştirilmiştir. Yapılan analizlerde AR-GE faaliyetlerinin ölçülmesinde AR-GE harcamaları, AR-GE personeli ile AR-GE faaliyetleri sonunda üretilen bilimsel yayın ve patentler gösterge olarak kullanılmıştır. Öte yandan AR-GE faaliyetlerinin yarattığı etkilere ilişkin üç temel kanaldan literatürdeki çalışmaların yürütüldüğü belirlenmektedir. Bir grup iktisatçı AR-GE faaliyetlerinin doğrudan doğruya ekonomik büyüme üzerinde yarattığı etkileri incelemiştir. Diğer bir grup iktisatçı AR-GE faaliyetlerinin toplam ihracat hacmi üzerindeki etkilerini analiz etmiştir. Son olarak bazı iktisatçılar ise, bizim de bu çalışmada gerçekleştirdiğimiz gibi, AR-GE faaliyetlerinin yüksek teknoloji ürünü ihracatı ile arasındaki etkileşimi araştırmıştır.

Literatürde ilk zamanlar AR-GE faaliyetlerinin ekonomik büyüme üzerinde yarattığı etkilerin belirlenmesi üzerine yoğunlaşmıştır. Bu çalışmalar AR-GE faaliyetleri sonucu elde edilen yeni bilgilerin üretim sürecinde kullanılan faktörlerinin verimliliğini artırarak daha fazla mal ve hizmet üretilmesine imkân verdiğini ortaya koymuşlardır. Buna göre öncelikle AR-GE faaliyetlerini simgeleyen çeşitli göstergeler ile ekonomik büyüme arasındaki ilişki analiz edilmiştir. Zachariadis (2004), bir grup OECD ülkesi için 1971-1995 yılları arasında imalat sektörü verilerinden hareketle AR-GE yoğunluğu ile toplam çıktı arasındaki ilişkiyi incelemiştir. Analiz sonucunda AR-GE yoğunluğundaki artışın üretim seviyesini olumlu yönde etkilediğini bulunmuştur. Falk (2007), OECD ülkelerinin 1970 ile 2004 yılları arasındaki verilerini kullanarak AR-GE harcamalarının uzun vadeli ekonomik büyüme üzerindeki etkisini tahmin etmiştir. Ampirik bulgular AR-GE yatırımlarının uzun vadede kişi başına GSYİH üzerindeki olumlu etkiler yarattığını göstermiştir. Böylece ampirik olarak OECD ülkelerindeki AR-GE yoğunluğu ile ekonomik büyüme arasındaki ilişki ortaya konmuştur. Coccia (2009), Avrupa Birliğine üye olan ülkeler ile birlikte Japonya ve ABD'yi kapsayan bir örnek üzerinden AR-GE harcamalarının büyüme üzerinde yarattığı etkiyi incelemiştir. Ekonometrik analiz sonuçları verimlilik artışına bağlı olarak GSYİH'daki gelişmelerin büyük oranda söz konusu ülkelerdeki AR-GE faaliyetlerinden kaynaklandığını göstermiştir. Peng (2010), 1987 ile 2007 arasında Çin'in AR-GE harcamaları ile ekonomik büyümesi arasındaki eş-bütünleşme ve nedensellik ilişkisini test etmiştir. Ampirik sonuçlar, bu iki değişkenin eş-bütünleştiğini ve aynı zamanda AR-GE harcamalarının GSYİH'daki artışların en büyük sebebi olduğunu belirlemiştir. Böylece AR-GE harcamalarının ekonomik büyümenin kilit faktörü olduğu vurgulanmıştır. Son olarak Gümüş ve Çelikay (2015), 1996-2010 yılları arasında 52 ülke için AR-GE harcamaları ile ekonomik büyüme arasındaki ilişkiyi incelemek için dinamik panel veri modeli kullanmıştır. Ampirik bulgular AR-GE harcamalarının tüm

gelişmiş ve gelişmekte olan ülkelerde ekonomik büyüme üzerinde uzun vadede olumlu etkisi olduğunu ortaya koymuştur.

Diğer bir grup çalışmada AR-GE faaliyetlerinin büyüme üzerinde yarattığı etki daha dolaylı bir şekilde AR-GE harcamalarının toplam faktör verimliliği ile ilişkisi çerçevesinde belirlenmiştir. Griffith vd. (2004), on iki OECD ülkesindeki endüstrilere ilişkin 1974-1990 dönemindeki verilerden yararlanarak AR-GE harcamalarının verimlilik artışı üzerinde istatistiksel olarak anlamlı bir etkiye sahip olup olmadığını araştırmıştır. Bulgular AR-GE harcamalarının verimlilik üzerinde olumlu etkisi olduğunu bulmanın yanında bütün bu ülkelerde toplam faktör verimliliği düzeylerinin yakınsaması sürecinde önemli rol oynadığını göstermiştir. Wakelin (2001) borsada kote edilen Birleşik Krallık'taki 170 firmanın Cobb-Douglas üretim fonksiyonu çerçevesinde AR-GE faaliyetlerinin verimlilik üzerindeki etkinliğini incelemiştir. Çalışma sonuçları, Birleşik Krallık'taki imalat firmalarında AR-GE yatırımların sağladıkları verimlilik artışı ile üretim sürecinde yüzde 27 katma değer sağladığını ortaya koymuştur. Bunun yanında Zachaniadis (2003), Amerika Birleşik Devletleri'nin imalat sektöründe AR-GE yatırımı ve toplam faktör verimliliğini araştırmıştır. Bulgular imalat sektöründe AR-GE yatırım miktarı ile toplam faktör verimliliği artışı arasında 1963-1988 dönemi için pozitif ilişki bulunduğuna ilişkin güçlü kanıtlar sunmuştur.

Öte yandan literatürdeki bir grup çalışma AR-GE faaliyetlerinin büyüme üzerindeki etkisini ortaya koymak için AR-GE faaliyetleri sonucu gelişen üretim teknolojileri neticesinde imalat sektöründe yaşanan yapısal değişimlere dikkate çekmiştir. Buna göre AR-GE faaliyetleri neticesinde sağlanan teknolojik ilerlemeler firmaların işleyişlerinde önemli değişimlere yol açarak daha çok üretmelerine imkân vermektedir. Böylece firmaların daha ileri teknolojilerde üretim yapması ile imalat sanayiinde yüksek teknoloji üretim yapan sektör gelişmekte bunun sonucunda da büyümeye daha fazla katkı sağlamaktadır. Buradan hareketle AR-GE faaliyetlerinin büyüme üzerine etkisi imalat sanayiinde yüksek teknoloji üretim yapan sektörün payı üzerinden belirlenmiştir. Burada imalat sanayiinde yaşanan yapısal dönüşüm AR-GE faaliyetlerinin büyüme üzerinde yarattığı olumlu etkinin bir göstergesi olarak kabul edilmiştir. Becker ve Pain (2008), İngiltere'deki imalat sanayii üzerinde yaptıkları araştırmada, AR-GE yoğunluğu arttıkça sanayi özelliklerinin değiştiğini belirlemişlerdir. Buna göre AR-GE faaliyetlerinin yoğunluğu ile ileri teknoloji üretim yapan firmalar arasında doğru orantılı bir ilişki bulunmaktadır. Mathieu ve Potterie (2010), Amerika Birleşik Devletleri, Japonya, Kore ve AB-15'teki iş sektörü AR-GE yoğunluğu ile endüstriyel yapı arasındaki bağlantıyı incelemiştir. AR-GE yoğunluğunun tüm ülkelerin imalat sektöründeki teknolojik uzmanlaşma derecesiyle yakından ilişkili olduğu sonucuna varmışlardır. Cavalcante (2013) AR-GE harcamaları ile ticari girişimlerin niteliği arasındaki ilişkiyi Brezilya ekonomisi için araştırmıştır. Sonuçta AR-GE faaliyetleri ile endüstriyel yapı arasında doğrudan bir ilişki olduğunu belirtmiştir. Böylece, AR-GE yatırımları ekonomik faaliyetlerde teknolojik uzmanlaşmayı artırarak yüksek teknoloji endüstrilerin imalat sanayiindeki payını genişletmektedir.

AR-GE faaliyetlerinin ekonomi üzerinde yarattığı etkileri belirlemek üzere bir grup araştırmacı AR-GE faaliyetlerinin toplam ihracat hacmi üzerindeki etkisini incelemiştir. Burada ampirik çalışmaları yönlendiren mantık AR-GE faaliyetlerinin üretim teknolojilerini geliştirmesi sonucunda uluslararası ticarete ülkelerin rekabet güçlerini artırdığına ilişkin yapılan tespite dayanmaktadır. Buna göre AR-GE harcamalarındaki artışa bağlı olarak yeni üretim teknolojilerinin geliştirilmesi ile üretim süreçlerinde sağlanan verimlilik artışı ülkelere rekabet üstünlüğü sağlayarak ihracat kapasitelerini olumlu yönde etkilemektedir. Söz konusu görüşü test etmek için Bojnec ve Ferto (2011), AR-GE harcamaları ile imalat sanayi ihracatı arasındaki ilişkiyi 1995–2003 dönemi çerçevesinde 18 OECD ülkesinde incelemişlerdir. Araştırma sonunda toplam AR-GE harcamalarının imalat sanayi tarafından gerçekleştirilen ihracat hacmi ile yakın ilişkili olduğu tespit edilmiştir. Dam (2016) AR-GE faaliyetleri kapsamında



gerçekleştirilen yatırımların dış ticaret performansı üzerine etkisini 1996-2012 dönemi verilerini kullanarak 21 OECD üye ülkesi için tahmin etmiştir. Panel eş bütünleşme ve panel nedensellik testi sonuçları uzun dönemde ihracat ve AR-GE değişkenlerinin eş bütünleşik olduğunu ortaya koymuştur. Ayrıca AR-GE harcamalarından ihracata doğru doğru tek yönlü bir nedensellik ilişkisi bulunmuştur. Kılıncarslan ve Dumrul (2018) OECD ülkeler içinde seçilen 16 örnek üzerinden 2000-2015 dönemi için AR-GE faaliyetlerinin toplam ihracat hacmi üzerine etkisini araştırmıştır. Pedroni ve Kao eşbütünleşme test sonuçları değişkenler arasındaki uzun dönemli etkileşimi doğrulamıştır. Panel FMOLS ve Panel DOLS testinden elde edilen bulgular ise sırası ile AR-GE harcamalarındaki %1'lik artışın toplam ihracat hacmini %0.45 ve %0.43 oranında artırdığını belirlemiştir.

Son dönemde AR-GE faaliyetlerinin ekonomiye sağladığı katkı toplam ihracat hacmi yerine yüksek teknoloji ürün ihracatı ile ilişkisi bağlamında incelenmektedir. Böylece ampirik çalışmalar geçmiş dönemde AR-GE faaliyetlerinin katkısını toplam ihracat miktarı üzerinde araştırırken günümüzde daha çok yüksek teknoloji ürün ihracatı çerçevesinde ele alınmaya başlamıştır. Çünkü AR-GE faaliyetleri sonucu sağlanan teknolojik ilerlemeler rekabet üstünlüğü sağlayarak sadece toplam ihracat miktarını değil aynı zamanda ihracatın niteliğini de değiştirmiştir. Böylece AR-GE yatırımlarının sağladığı teknolojik ilerlemeler sayesinde ülkelerin ihracat yapılarında da önemli dönüşümler yaşanmıştır. Buna göre AR-GE harcamaları sonucu üretim süreçlerinde teknolojik ilerlemeyi sağlayan ülkelerin ihracat yapısı düşük ve orta teknoloji ürünlerden yüksek teknoloji ürünler doğru kaymıştır. Yüksek teknoloji ürünlerin sahip olduğu büyük katma değer uluslararası ticarete yüksek teknoloji ürün ihracatının büyüme üzerinde çok daha güçlü bir etki yaratmasına neden olmaktadır. Böylece AR-GE faaliyetlerinin büyüme üzerinde yarattığı ilişkiler yüksek teknoloji ürün ihracatı üzerinden çok daha etkili bir biçimde görülebilmektedir.

AR-GE harcamalarının yüksek teknoloji ürün ihracatı üzerindeki etkisini Braunerhjelm ve Thulin (2006) 19 OECD ülkesi için araştırmıştır. Panel veri analizini kullanarak 1981-1999 dönemine ait veriler incelendiğinde AR-GE harcamalarının uluslararası ticarete rekabet üstünlüğünü artırarak yüksek teknoloji ürün ihracatında önemli avantaj sağladığı belirlenmiştir. Daha spesifik olarak AR-GE harcamalarında %1 artışın, yüksek teknoloji ürün ihracatında %3 oranında bir artışa yol açtığı ortaya konmuştur. Sandu ve Ciocanel (2014) AR-GE harcamalarının yüksek teknoloji ürün ihracatına etkilerini kamu ve özel sektör ayrımı çerçevesinde araştırmıştır. Avrupa Birliğine üye ülkelerin 2008 ile 2012 yılları arasındaki verileri analiz edildiğinde her iki kesimde gerçekleştirilen AR-GE harcamalarının farklı seviyelerde de olsa yüksek teknoloji ihraç ürünlerini pozitif yönde etkilediği belirlenmiştir. Kamu sektörü AR-GE harcamalarında yapılan %1'lik bir artış yüksek teknoloji ihracatını %8 oranında artırırken, özel sektör AR-GE harcamalarında aynı oranda yapılan artış yüksek teknoloji ihracatını %9 oranında büyütülmektedir. Çetin (2016) AR-GE harcamaları ile yüksek teknoloji ürün ihracatı arasındaki nedensellik ilişkisini yeni sanayileşen 7 ülke için analiz etmiştir. Çalışmada 1996-2013 dönemine ait panel verilerin analiz edilmesi sonucunda AR-GE harcamalarındaki artıştan yeni sanayileşen ülkelerin yüksek teknoloji ürün ihracatına doğru önemli bir nedensellik ilişkisi tespit edilmiştir. Böylece AR-GE harcamalarının yüksek teknoloji ürün ihracatına pozitif ve anlamlı bir etki yaptığı belirlenmiştir. Özkan ve Yılmaz (2017) AR-GE harcamalarının yüksek teknoloji ürün ihracatı üzerindeki etkisini 12 AB üyesi ülke ve Türkiye için incelemiştir. Çalışmada 1996-2015 yıllarını kapsayan dönem panel veri analizi yöntemiyle incelemiştir. Ekonometrik sonuçlar AR-GE harcamalarında meydana gelen %1'lik bir artışın yüksek teknoloji ürün ihracatında %3.5 oranında bir yükseliş meydana getirdiğini göstermiştir. Oğuz ve Sökmen (2020) panel veri analiz yöntemini kullanarak 1996-2016 döneminde OECD ülkelerinde yapılan AR-GE harcamalarının yüksek teknoloji ürün ihracatına etkisini araştırmıştır. Bulgular AR-GE harcamaları ve yüksek teknoloji ürün ihracatı arasında pozitif ve anlamlı

bir ilişki olduğunu göstermektedir. Böylece yüksek teknoloji ihracatını artırmak için AR-GE faaliyetlerine daha fazla kaynak ayrılması gerekliliği kanıtlamıştır.

### Veri, Yöntem ve Ampirik Sonuçlar

Bu bölümde 2007-2018 dönemine ilişkin yıllık verilerden yararlanılarak OECD ülkelerinde gerçekleştirilen AR-GE harcamalarının yüksek teknolojili ürün ihracatı üzerine etkisi ampirik olarak incelenmiştir. Analizlerin gerçekleştiği ülke grubu Avustralya, Avusturya, Belçika, Kanada, Şili, Kolombiya, Çekya, Danimarka, Estonya, Finlandiya, Fransa, Almanya, Yunanistan, Macaristan, İzlanda, İrlanda, İsrail, İtalya, Japonya, Güney Kore, Litvanya, Letonya, Lüksemburg, Meksika, Hollanda, Norveç, Polonya, Portekiz, Slovakya, Slovenya, İspanya, İsveç, Türkiye, İngiltere ve ABD'den oluşmaktadır. OECD ülkelerinin yer aldığı söz konusu ülke grubu ve analiz dönemi verilerin elde edebilirliğine göre belirlenmiştir. Çalışmada, toplam AR-GE harcaması (ARGE) ve yüksek teknoloji ihracatı (YTİHR) verileri kullanılmıştır. ARGE harcamalarına ilişkin veriler OECD veri tabanından, yüksek teknoloji ihracatına ilişkin verilerse Dünya Bankası veri tabanından elde edilmiştir.

OECD ülkelerinde ARGE harcamaları ve yüksek teknoloji ihracatı ilişkisini incelemek amacıyla panel eş bütünleşme ve nedensellik analizi kullanılmıştır. İlk olarak serilerin yatay kesit bağımlılığı sorunu içerip içermediğine bakılarak birinci nesil ve ikinci nesil birim kök testlerinden hangisinin kullanılacağına karar verilmiştir. Uygulanan söz konusu testler serilerde yatay kesit bağımlılığı sorununa işaret etmiş ve bunun üzerine yatay kesit bağımlılığı sorununu dikkate alan Pesaran (2007)'nin önerdiği ikinci nesil CADF (Cross Sectionally Augmented Dickey Fuller) birim kök testi yapılmıştır. Değişkenler arasında durağanlık düzeyleri tespit edildikten sonra eşbütünleşme ilişkisi araştırılmıştır. Bu doğrultuda Westerlund ve Edgerton (2007) tarafından önerilen eşbütünleşme testi kullanılmıştır. Değişkenler arasındaki eşbütünleşme ilişkisi tespit edildikten sonra ilişkinin yönünü belirlemek için son aşamada Dumitrescu ve Hurlin (2012) tarafından önerilen Panel Granger Nedensellik testi yapılmıştır.

Yukarıda ifade edilen ampirik süreç çerçevesinde ilk olarak gerçekleştirilen yatay kesit bağımlılığı test sonuçları Tablo 1'de sunulmuştur. Breusch-Pagan LM, Pesaran scaled LM, Bias-corrected LM ve Pesaran CD testi sonuçlarına göre her iki değişkene ilişkin seride de yatay kesit bağımlılığı sorunu olduğu ortaya çıkmıştır.

*Tablo 1: Yatay Kesit Bağımlılığı Testi Sonuçları*

	ARGE		YTİHR	
	İstatistik Değeri	Olasılık Değeri	İstatistik Değeri	Olasılık Değeri
<b>Breusch-Pagan LM</b>	3053.2	0.000	2158.9	0.000
<b>Pesaran scaled LM</b>	71.260	0.000	45.335	0.000
<b>Bias-corrected LM</b>	69.669	0.000	43.744	0.000
<b>Pesaran CD</b>	31.173	0.000	15.633	0.000

Serilerin yatay kesit bağımlılığı sorunu içerdiği sonucuna ulaştıktan sonra değişkenlere ilişkin durağanlık durumunun araştırması amacıyla yatay kesit bağımlılığını dikkate alan CADF birim kök testi yapılmıştır. Birim kök testi sonuçları Tablo 2'de yer almaktadır. CADF birim kök testi sabitli ve sabit+trend'li model için ayrı ayrı gerçekleştirilmiştir. Buna göre hem ARGE hem de YTİHR değişkeni düzey halde birim köke sahipken, serilerin birinci farkı alındığında iki değişkeninde durağan hale geldiği anlaşılmıştır.

**Tablo 2: CADF Birim Kök Testi Sonuçları**

	Düzye		Birinci Fark	
	Sabit	Sabit+Trend	Sabit	Sabit+Trend
ARGE	-1.608	-1.802	-2.528***	-3.036***
YTİHR	-1.839	-2.101	-2.787***	-3.013***

Not: \*\*\* %1 güven aralığında anlamlılığı göstermektedir.

Analizde kullanılan değişkenlerin ikisi de birinci farkında durağan bulunduktan sonra, değişler arasındaki eşbütünlük ilişkisini araştırmak amacıyla Westerlund eşbütünlük testi yapılmıştır. Westerlund eşbütünlük testinde  $H_0$  hipotezi “değişkenler arasında eşbütünlük ilişkisi yoktur” şeklinde kurulmaktadır. Tablo 3’te yer alan test sonuçlarına göre, Gt, Ga, Pt ve Pa istatistiklerinin tamamında  $H_0$  hipotezi reddedilmekte ve değişkenler arasında eşbütünlük ilişkisi olduğuna karar verilmektedir.

**Tablo 3: Westerlund Panel Eşbütünlük Testi Sonuçları**

Değişkenler: ARGE ve YTİHR			
Test istatistiği	Değer	Z değeri	Olasılık değeri
Gt	-2.092	-6.347	0.000
Ga	-4.928	-1.464	0.072
Pt	-10.607	-6.500	0.000
Pa	-3.329	-4.705	0.000

Değişkenler arasında eşbütünlük ilişkisi tespit edildikten sonra Dumitrescu ve Hurlin (2012) tarafından geliştirilen Granger nedensellik testi yapılmaktadır. Dumitrescu ve Hurlin (2012) nedensellik ilişkisi araştırılırken, veriler  $T > N$  özelliğindeyse asimptotik dağılıma sahip Z-bar istatistiğinin kullanımını,  $T < N$  özelliğine sahipse Z-bar tilde istatistiğinin kullanılmasını önermektedir (Göçer, 2013: 230). Tablo 4’te yer alan nedensellik testi sonuçları bu çerçevede değerlendirilirse ARGE YTİHR’in nedeni değildir şeklinde kurulan boş hipotez reddedilerek ARGE’den YTİHR yönüne nedensellik ilişkisi olduğuna karar verilmektedir. Diğer taraftan YTİHR ARGE’nin nedeni olduğu şeklinde kurulan boş hipotez olasılık değeri 0.592 olarak hesaplandığı için reddedilememekte ve YTİHR’den ARGE yönüne nedensellik ilişkisi olmadığına karar verilmektedir.

**Tablo 4: Dumitrescu ve Hurlin (2012) Nedensellik Testi Sonuçları**

$H_0$ Hipotezi	Test istatistiği	İstatistik değeri	Olasılık değeri
ARGE YTİHR’in Granger nedeni değildir.	Z-bar	7.4739	0.000
	Z- bar tilde	3.4467	0.000
YTİHR ARGE’nin Granger nedeni değildir.	Z-bar	5.9402	0.000
	Z- bar tilde	0.5356	0.592

Ampirik sonuçlar değerlendirildiğinde, 35 OECD ülkesinde 2007-2018 döneminde ARGE harcamaları ve yüksek teknoloji ihracatı arasında uzun dönemli bir ilişki olduğuna karar verilmiştir. Nedensellik analizi sonuçlarına göre ise ARGE harcamalarından yüksek teknoloji ihracatına doğru nedensellik ilişkisi varken, ileri teknoloji ihracatından ARGE harcamaları yönüne nedensellik ilişkisi olmadığı çıkarımı yapılmaktadır.

### Sonuç

Günümüzde yüksek refaha sahip gelişmiş ülkelerin büyüme dinamikleri incelendiğinde iç talepten daha çok dış talep kaynaklığı olduğu belirlenmektedir. Böylece uluslararası ticarete rekabet üstünlüğü elde

ederek ihracat kapasitesini artırmak sürekli bir biçimde yüksek büyüme oranlarına ulaşmak için temel koşul haline gelmiştir. Bunun yanında son dönemlerde ihracat ile ekonomik büyüme ilişkisi daha çok yüksek teknoloji ürün ihracatı çerçevesinde ele alınmaya başlanmıştır. Buna göre, daha yüksek katma değer sağladığı için, yüksek teknolojlili ürün ihracatı ekonomik büyüme üzerinde çok daha fazla katkı sağlamaktadır. Bu şekilde ihracata dayalı büyüme modellerinde yüksek teknolojlili ürün ihracatına vurgu yapılması AR-GE faaliyetlerinin öne çıkmasına neden olmuştur. Çünkü söz konusu ürünlerin daha çok katma değer sağlamasında emek ve sermayeden daha çok üretim süreçlerinde yeni bilgilerin kaynaklık etmesi rol oynamaktadır. Yüksek teknolojlili ürünlerin üretim sürecinde kullanılan yeni bilginin temel kaynağı ise AR-GE faaliyetleridir. Böylece uluslararası rekabette üstünlük sağlayarak ileri teknoloji ürün ihracatını artırıp sürdürülebilir yüksek büyümeye ulaşmasının yolu AR-GE faaliyetlerini desteklemekten geçmektedir.

Yukarıda ifade edilen görüş çerçevesinde AR-GE harcamalarının büyüme üzerine etkisi önceleri ihracat hacmine etkisi çerçevesinde incelenirken günümüzde yüksek teknoloji ürün ihracatına etkisi bağlamında ele alınmaktadır. Buradan hareketle çalışmamızda AR-GE harcamaları ile yüksek teknolojlili ürün ihracatı arasındaki ilişki 35 OECD ülkesi için 2007-2018 dönemine ait veriler çerçevesinde incelenmiştir. Westerlund panel eşbütünlük testi sonuçları AR-GE harcamaları ile yüksek teknolojlili ürün ihracatı arasında uzun dönemde karşılıklı etkileşim olduğunu göstermiştir. Dumitrescu ve Hurlin panel nedensellik testi sonuçları ise AR-GE harcamalarından yüksek teknolojlili ürün ihracatına yönelik olarak tek yönlü bir nedensellik ilişkisi olduğunu ortaya koymuştur. Böylece elde edilen bulgular incelenen dönemde OECD ülkelerinde AR-GE harcamalarının ekonomik büyümeye önemli katkı sağlayan yüksek teknolojlili ürün ihracatını olumlu yönde etkilediğini göstermiştir. Buradan hareketle AR-GE faaliyetlerini geliştirmeye yönelik politikaların bir ülkenin yüksek teknolojlili ürün ihracatına ilişkin performansı dolayısı ile de yüksek seviyede büyüme kapasitesini olumlu yönde etkileyeceği söylenebilir. Bunun için uluslararası ticarete rekabet üstünlüğü kazanarak daha yüksek katma değer sağlamak için AR-GE faaliyetlerinin desteklenmesine iktisat politikası tasarım sürecinde özel bir önem verilmelidir.

#### KAYNAKÇA

- Aghion P. ve Howitt P. (1992). A model of growth through creative destruction. *Econometrica*, 60, 323-351.
- Becker B. ve Pain N. (2008). What determines industrial R&D expenditure in the UK?. *The Manchester School*, 76(1), 66-87.
- Bojnec, S. ve Ferto, I. (2011). Impacts of research and development on manufacturing trade. *Proceedings of Rijeka Faculty of Economics*, 29(1), 65-88.
- Braunerhjelm, P. ve Thulin, P. (2006). Can countries create comparative advantages?, Centre of Excellence for Studies in Science and Innovation (CESIS) Electronic Working Paper Series, No.61.
- Cavalcante, L. R. (2013). An analysis of the business enterprise research and development expenditures composition in Brazil. *Rev. Bras. Inov, Campinas (SP)*, 13(2), 433-458.
- Coccia, M. (2009). What is the optimal rate of R&D investment to maximize productivity growth?. *Technological Forecasting Social Change*, 76, 433-446.
- Çetin, R. (2016). Yeni sanayileşen ülkelerde AR-GE harcamaları ve yüksek teknolojlili ürün ihracatı arasındaki ilişkinin panel veri analizi yöntemiyle incelenmesi. *İktisat Fakültesi Mecmuası*, 66(2), 30-43.
- Dam, M. M. (2016). Dış ticaret ve AR-GE yatırımları arasındaki ilişki: OECD ülkeleri için panel veri analizi. *Akademik Bakış Dergisi*, 56, 345-358.
- Dumitrescu, E. I. ve Hurlin, C. (2012). Testing for granger non-causality in heterogeneous panels. *Economic Modelling*. 29(4), 1450-1460.

- Dumrul, Y. ve Kılıcarslan, Z. (2018). The effects of research and development expenditures on export: Evidence from a panel of selected OECD countries. *Journal of Economics, Finance and Accounting*, 5(3), 232-241.
- Falk, M. (2007). R&D spending in the high-tech sector and economic growth. *Research in Economics*, 61, 140-147.
- Göçer, İ. (2013). AR-GE harcamalarının yüksek teknoloji ürün ihracatı, dış ticaret dengesi ve ekonomik büyüme üzerindeki etkileri. *Maliye Dergisi*, 165, 215-240.
- Griffith, R., Rending, S. ve Reenen, J. Van (2004). Mapping the two faces of R&D: productivity growth in a panel of OECD industries. *Review of Economics and Statistics*, 86.
- Grossman G. ve Helpman E. (1991). *Innovation and growth in the global economy*. Cambridge: MIT Press.
- Gümüş, A. ve Çelikay, F. (2015). R&D expenditure and economic growth: New empirical evidence. *The Journal of Applied Economic Research*, 9, 205-217.
- Lucas, R. E. (1988). On the mechanics of economic development. *Journal of Monetary Economics*, 22, 3-42.
- Mathieu, A. ve Potterie, B. P. (2010). A note on the drivers of R&D intensity. *Research in World Economy*, 1(1), 56-65.
- OECD. (2020). Veri. Link: <https://data.oecd.org/>
- Oğuz, S. ve Sökmen, A. G. (2020). The effect of research development expenditures on high technology exports: A panel data analysis on OECD countries. *International Journal of Economic and Administrative Studies*, 27, 209-222.
- Özkan, G. ve Yılmaz, H. (2017). AR-GE harcamalarının yüksek teknoloji ürün ihracatı ve kişi başı gelir üzerindeki etkileri: 12 AB ülkesi ve Türkiye için uygulama (1996-2015). *Bilgi Ekonomisi ve Yönetimi Dergisi*, 12(1), 1-12.
- Peng, L. (2010). Study on relationship between R&D expenditure and economic growth of China. *Proceedings of the 7th International Conference on Innovation & Management, Wuhan, China, December 4-5*.
- Pesaran, M. H. (2007). A simple panel unit root test in the presence of cross-section dependence. *Journal of Applied Econometrics*, 22(2): 265–312.
- Romer, P. M. (1990). Endogenous technological change, *Journal of Political Economy*, 98, 71-102.
- Sandu, S. ve Ciocanel, B. (2014). Impact of R&D and innovation on high-tech export. *Procedia Economics and Finance*, 15, 80-90.
- Wakelin, K. (2001). Productivity growth and R&D expenditure in UK manufacturing firms. *Research Policy*, 30, 1079-1090.
- Westerlund, J. ve Edgerton, D. L. (2007). A panel bootstrap cointegration test. *Economics Letters*, 97(3), 185-190.
- Worldbank. (2020). Veri. Link: <https://data.worldbank.org/>
- Zachariadis, M. (2003). R&D, innovation and technological progress: A test of the Schumpeterian framework without scale effects. *Canadian Journal of Economics*, 36, 566-686.
- Zachariadis, M. (2004). R&D-induced growth in the OECD?. *Review of Development Economics*, 8, 423-439.

## A COMPARISON OF ACCOUNTING SYSTEMS: THE CASE OF RUSSIA AND CHINA

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### ABSTRACT

Recently, between the geographic neighbors Russia and China, have been signed significant strategic partnerships in economic and political fields. The "Treaty of Friendship" signed in 2001, the international Shanghai Cooperation Organization established by China, Russia, Kazakhstan, Kyrgyzstan and Tajikistan in 1996 and later joined by Uzbekistan, India and Pakistan, the BRICS establishment and the New Silk Road Project, which were established in 2011 to develop commercial and political cooperation between Brazil, Russia, India, China and South African countries, are among the important developments that strengthen the relations between Russia and China. Today, Russia is China's tenth largest trade partner, while China is Russia's largest trade partner. China imports agricultural products, energy products and raw materials from Russia, while Russia imports equipment, machinery and consumer products from China. In addition, developments such as the establishment of a joint airline company, infrastructure projects, arms trade and joint military exercises have significantly strengthened the strategic alliance between the two countries. These developments in the commercial relations between Russia and China created the necessity to examine the national accounting and reporting systems of the two countries. The data included in the financial reports of national companies constitute the main source of information about the financial status and future development perspective of companies operating in the country. Financial data is also one of the most important documents that investors refer to in order to make investment decisions. The reliability, transparency and accuracy of financial data are vital for investors. In this context, in order to ensure confidence in financial data, examination of the country's accounting system is crucial. Increasing commercial relations and investments between Russia and China make it necessary to examine and compare the accounting systems of both countries. Within the scope of this necessity, the similarities and differences between the accounting systems of the two countries were examined in this study. Within the framework of the review, the legal situation, regulatory institutions, accounting principles, accounting profession, chart of accounts and financial reports in both countries were discussed.

**Keywords:** Russia, China, Accounting System.

### Giriş

Modern dünyada yakınsama süreci üretim prosesinin küresel boyut kazanması, işletme faaliyetlerinin ülkeler dışına taşınması, yabancı yatırımların artması ve teknolojik icatlar gibi gelişmelere bağlı olarak hızlı bir şekilde ilerlemektedir. Bu süreç kapsamında özellikle son dönemlerde Rusya ile Çin arasındaki ticari ve siyasi ilişkilerin önemli ölçüde geliştiği görülmüştür. 2001 yılında Rusya ile Çin arasında imzalanan komşuluk, dostluk ve işbirliği sözleşmesine bağlı olarak her iki ülkenin ticari yapısında önemli olumlu değişiklikler yapılmış ve ülkeler arasındaki ürün sirkülasyonu beş kat artmıştır (Lımar, 2018: 406).

Rusya ile Çin arasındaki ilişkilerin büyümesini önemli ölçüde etkileyen gelişme 2006 yılında Petersburg ekonomi forumu kapsamında BRICS grubunun kurulmasıyla yaşanmıştır. Brezilya, Rusya, Hindistan, Çin ve Güney Afrika ülkelerinden oluşan bu grup ülkeler arasında ticari, siyasi ve kültürel işbirliğinin geliştirilmesi amacıyla kurulmuştur. Günümüz koşullarında BRICS ülkeleri dünya kara kitesinin %25'ini, dünya nüfusunun ise %40'nı oluştururken, bu ülkelerin toplam gayri safi yurtiçi hasılası 15.435 trilyon doları aşmış bulunmaktadır. Uzmanlar, Brezilya, Rusya, Hindistan, Çin ve Güney Afrika

ekonomilerinin 2050 yılında dünyanın en baskın beş ekonomisi konumuna sahip olacağını öngörmektedir (Sin ve İlyina, 2018: 98).

Rusya ile Çin arasındaki ekonomik ilişkilerin güçlenmesine neden olan diğer bir gelişme 20.05.2014 tarihinde iki ülke arasında imzalanan stratejik iş birliği anlaşmasıyla yaşanmıştır. Stratejik iş birliği kapsamında iki ülke arasında Rusya-Çin demiryolu iş birliği anlaşması, ulusal paraların kullanımıyla ilgili iş birliği anlaşması ve Amur nehri üzerinde inşa edilecek yeni köprüyle ilgili anlaşma yapılmıştır. Aynı zamanda Şanghay İş birliği Örgütü ve Yeni İpek Yolu Projesi kapsamında yürütülen çalışmalar da iki ülke arasındaki enerji, ulaşım, finans ve teknoloji alanlarındaki ilişkileri önemli ölçüde geliştirmiştir.

Rusya ile Çin arasındaki ticari ilişkilerin gelişmesi, her iki ülkede faaliyet gösteren şirketlerin ekonomik ve finansal bilgilerinin ulaşılabilir ve anlaşılabilir olması gereğini ortaya çıkarmıştır. Şirketlerin muhasebe verilerinin ulaşılabilir, şeffaf ve gerçeğe uygun olması amacıyla her iki ülkenin muhasebe sisteminde önemli reformlar yapılmıştır. Bu kapsamda Rusya ile Çin arasındaki ticari ilişkilerin kalitesini artırmak adına her iki ülkedeki muhasebe sisteminin karşılaştırarak incelenmesi, benzerlik ve farklılıkların belirlenmesi büyük önem taşımaktadır (Lımar, 2016: 29).

### **Rusya ve Çin’de Muhasebe Sistemlerinin Karşılaştırılması**

Rusya ile Çin arasında stratejik ortaklıkların artırılması ve ticari ilişkilerin güçlendirilmesinde her iki ülkedeki muhasebe ve raporlama sisteminin ilgili tarafların taleplerini karşılayacak şekilde kurulması büyük önem taşımaktadır. Her iki ülkede ortak muhasebe dilinin oluşturulması için ulusal standartların uluslararası standartlara uyarlanması yönünde önemli çalışmalar yürütülmektedir. Uluslararası standartlarla uyumlaşma süreci kapsamında ülkelerin muhasebe sisteminde yapılan reformlar Rusya ve Çin’in gelenek ve kültürünü de dikkat alarak yürütülmektedir. Uluslararası standartlar, Avrupa ülkeleri uzmanları tarafından Avrasya ve Asya ülkelerinin gelişim özelliklerini dikkate almaksızın hazırlanmaktadır. Dolayısıyla Rusya ve Çin gibi ülkelerin bu standartları körü körüne uygulamasının gelişmeleri olumsuz etkileyeceği ve zıt sonuçlar doğurabileceğiyle ilgili düşünceleri ortaya çıkarmaktadır. Bu bağlamda hem iki ülke arasında artan ticari ilişkiler nedeniyle, hem de Avrasya ve Asya ülkesi olmalarından kaynaklı olarak iki ülkenin muhasebe sistemlerinin incelenmesi büyük önem taşımaktadır (Suprunova, 2018: 43).

Rusya’da muhasebeleştirmeyle ilgili tüm işlemler 06.12.2011 tarihinde yürürlüğe giren Muhasebe Kanununun çerçevesinde yürütülmektedir (Çih, Oparina ve Varakina, 2015: 28). Çin’de muhasebeleştirmeyle ilgili tüm faaliyetler 21.01.1985 tarihinde yürürlüğe giren Muhasebe Kanunu kapsamında düzenlenmektedir. Kanun üzerinde 1993, 1999 ve 2017 yıllarına değişiklikler yapılmıştır (Amurskaya, 2020: 397). Muhasebeyle ilgili temel düzenleyici çerçeve olan Muhasebe Kanunlarının yürürlüğe girme tarihleri arasındaki önemli fark, gelişimin ekonomik ve siyasi özellikleri, tarihi olaylar, Rusya’nın Çin’e göre piyasa ekonomisine daha geç geçişi gibi nedenlerden kaynaklanmaktadır (Lımar, 2017a: 58).

Çin’in 2001 yılında Dünya Ticaret Örgütüne girişi ülkedeki muhasebe sisteminin Uluslararası Finansal Raporlama Standartlarına uygun olarak reform edilmesi gereğini ortaya çıkarmıştır. Bu bağlamda 2006 yılından itibaren uluslararası uygulamalarla uyumlaşma yönünde ülkede önemli çalışmalar başlatılmıştır. Aynı yılda Çin Muhasebe Standartları Komitesi tarafından muhasebeyle ilgili temel standartlar ve ulusal standartlarla ilgili temel dokümanlar hazırlanmıştır (Syaojuy ve Yuryeva, 2016: 719). 2008 yılında ülkede uluslararası uygulamalarla uyumlu standartların hazırlanmasıyla ilgili faaliyetlerin yürütülmesi amacıyla Ulusal Değerlendirme Komisyonu kurulmuştur. Rusya ise Dünya Ticaret Örgütüne 16.12.2011 yılında girmiştir. Ülkedeki muhasebe sisteminin reformuna yönelik resmi faaliyetler 1994 yılında Finans Bakanlığına bağlı Muhasebeyle İlgili Metodolojik Konseyin muhasebe sisteminin reformuna yönelik programı onaylamasıyla başlatılmıştır. Bu programa göre ulusal standartların 2000 yılına kadar Uluslararası Finansal Raporlama Standartlarına geçişi planlanmıştır. 1997 yılında programın uygulanması amacıyla Rusya piyasa ekonomisiyle uyumlu muhasebe konsepti hazırlanmıştır. Bu konsept, ülkede muhasebe ve raporlamayla ilgili yeni düzenleme sisteminin kurulması

için temel oluşturmuş ve bu çerçevede 06.03.1998 tarihinde muhasebe sisteminin Uluslararası Finansal Raporlama Standartlarıyla uyumlu şekilde değiştirilmesiyle ilgili yeni program onaylanmıştır (Suprunova, 2016: 525). Rusya'da muhasebe sisteminin reformuyla ilgili çalışmaların Çin'den önce başlatılmasına rağmen bu süreç günümüzde de devamını sürdürmektedir.

Rusya ve Çin muhasebe sistemleri, kıtasal muhasebe sistemi modeli kapsamına girmektedir. Her iki ülkenin muhasebe sistemi, kıtasal muhasebe sistemi modelinin sahip olduğu muhasebeleştirilmenin vergi odaklı olması, muhasebe politikalarında istikrar, devlet tarafından kontrol ve mevzuatın kodlanması gibi özellikleri taşımaktadır. Çin muhasebe sistemi, Maliye Bakanlığı, Muhasebe Standartlarıyla İlgili Komite, Kamu Kesim Muhasebecilerin Mesleki Komitesi ve Ticari İşletmelerin Muhasebecilerinin Mesleki Komitesi gibi devlet tarafından oluşturulan yapılar ve mesleki kuruluşlar tarafından düzenlenmektedir. Rusya muhasebe sisteminin düzenlenmesi Çin'dekiyle benzerlik göstermektedir (Lımar, 2017b: 222). Her iki ülkede muhasebe normlarının hazırlanıp uygulanmaya konması devlet organlarıyla mesleki kuruluşların ortak çalışmalarıyla gerçekleştirilmektedir. Devlet organları, muhasebe sistemi ve raporlamayla ilgili stratejiler hazırlamakta, muhasebe kural ve normlarını belirlemekte ve bu normlara uyulup uyulmadığını kontrol etmektedir. Mesleki kuruluşlar ise, devlet organları tarafından belirlenen normların uygulanmasıyla ilgili öneriler geliştirmektedir. Her iki ülkenin Maliye Bakanlığı bölümlerinin çalışmaları karşılaştırıldığında Çin'deki çalışmaların uluslararası yakınsamalara odaklı olması nedeniyle daha etkili olduğu söylenebilir. Çin ticari ve kamu yapıları bilimsel topluluğu üyelerinden oluşan danışma grubu, modern ekonomik koşullar çerçevesinde ülkedeki muhasebe sisteminin hukuki ve metodolojik çerçevesini oluşturmaktadır. Rusya'da ise metodolojik konseyin görevleri Devlet Duma'sına bağlı uzman konsey tarafından aynı şekilde yerine getirilmektedir (Lımar, 2017c: 693).

Rusya ile Çin muhasebe sistemleri kıyaslanırken her iki ülkedeki muhasebe prensiplerinin incelenmesi önem taşımaktadır. Çin'de muhasebeleştirme işlemleri ortak muhasebe prensipleri çerçevesinde gerçekleştirilmektedir. Muhasebe prensiplerinin yasal konsolidasyonu aşağıda sıralanan talepler doğrultusunda gerçekleştirilmektedir:

- Finansal hesaplar gerçekleşmiş ekonomik olaylara dayanarak hazırlanmalıdır,
- Muhasebe bilgilerinin ülke markoekonomik düzenlemelerinin taleplerini karşılaması gerekmektedir,
- Muhasebe hesaplarının belirlenen yöntemlerle karşılaştırılabilir olması gerekmektedir,
- Gelirler maliyet ve giderlerle orantılı olmalı, olası kayıp ve giderler gerçeği yansıtmalıdır,
- Hesap döneminde tek muhasebe yöntemi kullanılmalı, muhasebe kayıtları net ve kullanılabilir olmalıdır.

Rusya'daki temel muhasebe prensipleri aşağıdaki gibi sıralanabilir (Nefedova ve Alikanova, 2015: 80):

- Özerklik prensibi. Bu prensibe göre her işletme ayrı bir tüzel kişiliğe sahiptir ve işletmenin varlıkları ve kaynaklarıyla ilgili yapılan tüm işlemler bu kişilik adına yürütülmektedir.
- Çifte kayıt prensibi. Gerçekleştirilen işlemler hesapların hem borç kısmına hem de alacak kısmına kaydedilmektedir.
- Finansal veriler işletmenin özkaynak, varlık ve borç yönetimine temel oluşturmaktadır,
- Süreklilik prensibi. Bu prensip, işletmenin tedarikçi ve tüketicilere karşı olan sorumluluklarını gerçekleştirerek faaliyetine devam edeceğini ve piyasadaki yerini koruyacağını ifade etmektedir.
- Objektiflik prensibi. Bu prensibe göre işletmede gerçekleştirilen tüm işlemler kayıt altına alınmalı ve belgelerce doğrulanmalıdır.
- İhtiyatlılık prensibi. Bu prensip, belirsizlik koşullarında yapılan değerlendirmelerde temkinli davranılması gerektiğini vurgulamaktadır.



- Tahakkuk esası prensibi. Bu prensibe göre işlemin ortaya çıktığı zaman kaydedilmesi ve gerçekleştiği dönem kapsamında değerlendirilmesi gerekmektedir.
- Dönemsellik prensibi. Bu prensip kapsamında işletmeler faaliyetlerini dönemlere ayırmakta ve finansal sonuçlarını karşılaştırmaktadır.

Rusya ile Çin karşılaştırıldığında iki ülkenin muhasebe prensiplerinin benzer olduğu ve her iki sistemin katı ve düzenleme ağırlıklı olduğu görülmektedir.

Çin’de muhasebecilik mesleği muhasebeci ve sertifikalı muhasebeciler tarafından yerine getirilmektedir. Muhasebeci olarak görev yapan kişiler üç gruba ayrılmaktadır. İlk grup başlangıç düzey muhasebecilerden, ikinci grup orta düzey muhasebecilerden, üçüncü grup ise üst düzey muhasebecilerden oluşmaktadır. Başlangıç düzey muhasebeciler, genellikle üst düzey muhasebecilerin yardımcıları veya kasiyer olarak görev yapmaktadırlar. Orta düzey muhasebecilerin, muhasebe normlarıyla ilgili bilgilere sahip olması, bilanço ve bütçe takibini yaparak başlangıç düzey muhasebecilerin eğitimine destek vermesi gerekmektedir. Üst düzey muhasebeci, muhasebeleştirme ve ekonomik faaliyetleri yürütmekte ve orta düzey muhasebecilerin eğitimine katkı sağlamaktadır. Üst düzey muhasebeciler genel olarak işletmelerde müdür görevini yerine getirmektedir. Çin’de faaliyet gösteren diğer muhasebeci türü olan sertifikalı muhasebeciler, yeminli mali müşavir olarak işletmelerin finansal raporlarının denetimini, sermaye denetimini, işletmelerin birleşme ve bölünme işlemlerini yerine getirmektedir. Sertifikalı muhasebeci olabilmek için adayın beş dersten sınava girip başarılı olması ve beş yıl boyunca bağımsız denetçi olarak çalışması gerekmektedir (Jinhua ve Ying, 2015: 64).

Rusya’da Çin’den farklı olarak muhasebecilerin zorunlu sertifikasyonu ile ilgili herhangi bir düzenleme bulunmamaktadır. Ülkedeki muhasebeciler 21.08.1998 tarihinde Rusya Çalışma Bakanlığı tarafından hazırlanan Yönetici, Uzman ve Diğer Meslek Mensuplarının Mesleki Yeterlilik Rehberi isimli yönetmelik kapsamında derecelendirilmektedir. Bu yönetmeliğe göre muhasebeciler üç sınıfa ayrılmaktadır. İlk sınıfı iktisat veya işletme alanında mesleki eğitim almış fakat iş deneyimi olmayan kişiler oluşturmaktadır. İkinci sınıf, iktisat veya işletme alanında lisans eğitimini tamamlamış ve iş deneyimi olmayan kişilerden oluşmaktadır. Üçüncü sınıf ise, iktisat veya işletme alanında lisans eğitimini tamamlamış ve üç yıl muhasebeci olarak çalışmış kişilerden oluşmaktadır (Elkhova ve Filatova, 2019: 206).

Çin hesap planı Rusya hesap planı arasında önemli farklılıklar bulunmaktadır. Çin hesap planında Rusya hesap planına göre daha fazla hesap bulunmakta, hesapların birleşme şekli Rusya hesap planındakinden farklılık göstermekte, hesapların numaralandırılmasında Rusya hesap planında kullanılan ikili numaralandırma sisteminden farklı olarak dörtlü numaralandırma sistemi kullanılmaktadır. Çin hesap planının daha fazla hesap içermesi ve genişletilmiş olması ilgili taraflara daha güvenilir ve şeffaf rapor sunma olanağı sağlamaktadır. Çin hesap planı, Rusya hesap planından farklı olarak vergi ve denetim organlarının talepte bulunması durumunda ek hesap kullanımına imkan sağlamaktadır. Rusya bilançosunda aktif ve pasifler likidite düzeyindeki artışa göre sıralanırken, Çin bilançosunda bu sıralama likidite azalışına göre yapılmaktadır (Vzyamina, 2018: 149). Her iki ülkede bilançonun düzenlenmesi ve ana kalemlerin içeriğinin oluşturulması farklılık göstermektedir. Çin’de aktifler, Uluslararası Finansal Raporlama Standartları’nca belirlenen aktiflerin içeriğiyle benzerlik göstermekte, başka bir ifadeyle aktiflerin mülkiyet biçiminden ziyade kaynakların oluşum şekli üzerinde durulmaktadır. Çin muhasebe sisteminde aktiflerin değerlendirilmesi daha sistematik bir şekilde gerçekleştirilmekte ve bu kapsamda tek yasal çerçeve bulunmaktadır. Rusya’da ise aktiflerin değerlendirilmesiyle ilgili on beşten fazla kılavuz ve metodoloji bulunmaktadır (Lımar, 2017c: 694).

Çin’deki finansal raporlama, işletmenin organizasyon ve hukuki yapısına bağlı olarak farklılık göstermektedir. Çin yasalarına göre işletmeler kamu kuruluşları ve diğer işletmeler olarak sınıflandırılmaktadır. Çin yasalarına göre kamu kuruluşları kapsamına devlet daireleri, federal bütçenin finanse ettiği işletmeler ve yönetiminde devletin de yer aldığı işletmeler girmektedir. Diğer işletmelerin

kapsamına ise özel şirketler ve yabancı yatırımlı şirketler girmektedir. Çin'deki kamu kuruluşları finansal raporlarını hazırlarken aşağıda yer alan belgeleri sunmak zorundadırlar:

- Bilanço,
- Ana faaliyet raporu,
- Para giriş ve çıkışlarıyla ilgili rapor.

Rusya'daki kamu kuruluşlarının hazırladığı finansal raporların içeriğini incelemeyen önce kamu kuruluşu bünyesine giren kurumların incelenmesi gerekmektedir. Çünkü Rusya'daki kamu kuruluşu kavramı ile Çin'deki kamu kuruluşu kavramı arasında farklılık bulunmaktadır. Rusya'daki kamu kuruluşları bünyesine belediyeler, yerel öz denetim kuruluşları, devlet bilim akademileri, devlet bütçe dışı fonlarının yönetim organları ve bölgesel devlet bütçe dışı fonlarının yönetim organları girmektedir. Bu kuruluşların finansal raporları aşağıda sıralanan belgelerden oluşmaktadır:

- Bilanço,
- Kaynakların kullanım raporu,
- Ekler (Petrov ve Lımar, 2013: 56).

Çin'deki diğer şirketler grubuna giren özel şirketler ve yabancı yatırımlı şirketler raporlama işlemlerini Muhasebe Kanunu kapsamında yürütmektedirler. Bu şirketlere, raporlama işlemlerini yürütürken kendi muhasebe sistem, araç ve yöntemlerini seçip uygulayabilme olanağı sağlanmaktadır. Bu şirketlerin finansal raporlarında aşağıda sıralanan belgelerin yer alması gerekmektedir:

- Bilanço,
- Kar ve zarar raporu,
- Nakit giriş ve çıkışları raporu,
- Bilanço ekleri,
- Açıklayıcı notlar (Polenova, 2017: 58).

Rusya'daki özel şirketlere Çin'de olduğu gibi raporlama sistem ve yöntemlerini seçip uygulama imkanı sunulmamakta ve tüm şirketler muhasebe işlemlerini Muhasebe Kanununa dayanarak tekdüze kurallar kapsamında gerçekleştirilmektedir. Özel şirketlerin hazırladıkları raporun içeriğinin ülkedeki kamu kuruluşlarının hazırladıkları raporun içeriğiyle aynı olması gerekmektedir. Çin'deki tüm kamu kuruluşlarının işlemlerini Yuan ile gerçekleştirmesi gerekmektedir. Özel ve yabancı yatırımlı şirketler ise işlemlerini hem Yuan hem de yabancı para birimi ile gerçekleştirebilmektedir. Rusya'da ise hem kamu hem de özel şirketlerin tüm işlemlerini Ruble ile gerçekleştirmesi gerekmektedir.

Literatürde yer alan Petrov ve Lımar (2013), Suprunova (2018), Hou ve İlyina (2018) ve Petrov ve Amurskaya (2020) çalışmalarından yararlanılarak Rusya ve Çin muhasebe sistemlerinin karşılaştırmalı tablosu aşağıdaki şekilde düzenlenmiştir.

**Tablo 1:** Rusya ve Çin Muhasebe Sistemlerinin Karşılaştırması

Karşılaştırma Parametreleri	Çin	Rusya
Yasal durum	21.01.1985 tarihli Muhasebe Kanunu	06.12.2011 tarihli Muhasebe Kanunu
Yasanın amacı	Muhasebe sisteminin standardizasyonu ve gelişimini sağlamak, muhasebecilerin yasal normlara uyup uymadığını kontrol etmek, muhasebenin önemini ve ekonomik verimliliği artırmak	Muhasebeleştirme ve finansal raporlamada tekdüze sağlamak ve muhasebeyle ilgili düzenleme mekanizması oluşturmak

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UFRS'lere geçiş	Çin standartlarının büyük bir kısmı UFRS'lerle uyumlu	UFRS'lere geçiş süreci devam etmektedir
Muhasebeleştirilmenin odağı	-Para ve menkul kıymetlerle ilgili tahsilat ve ödemeler -Mülkiyetin alınması veya devredilmesi -Borç veya kredilerin kapatılması -Sermayenin çoğaltılıp azaltılması	-Ekonomik faaliyetler -İşletme aktifleri -Yükümlülükler -İşletmenin finansman kaynakları -Gelirler -Giderler
Mali dönem	1 Ocak-31 Aralık	1 Ocak-31 Aralık
Muhasebe para birimi	Yuan ve yabancı para birimleri	Ruble
İç denetim	Muhasebeciler kendi şirketlerinin muhasebe sistemini denetleyebilmektedir	İşletme iç denetim mekanizması oluşturmak zorundadır
İşletmedeki muhasebe organizasyonundan sorumlu kişi	İşletme yönetimi	İşletme yönetimi
Muhasebe dili	Çince, yabancı diller ve ulusal yerel diller	Rusça
Hile ve yolsuzluk	İdari ve cezai sorumluluk	İdari ve cezai sorumluluk

## Sonuç

Ülkeler arasındaki ekonomik ilişkilerin başarılı bir şekilde yürütülmesi ve artırılmasında muhasebe ve raporlama sistemleri arasındaki koordinasyonun sağlanması büyük önem taşımaktadır. İki ülke arasında gelişen ekonomik ilişkiler her iki ülkedeki muhasebe ve finansal raporlama sisteminin şeffaf ve gerçeğe uygun olması gereğini ortaya çıkarmıştır. Muhasebe ve raporlama sistemlerinin şeffaflığı ve ülkeler arasındaki yakınsama Rusya ile Çin açısından önemli gelişmelere neden olacaktır. Bu gelişmeler aşağıdaki gibi sıralanabilir:

- Uzak Doğuda Rusya-Çin altyapısının gelişimi,
- Büyük şirketlerin yanı sıra orta ve küçük boy şirketler arasındaki ilişkilerin gelişimi,
- Bölgesel düzeyde devlet yetkilileri arasındaki ilişkilerin gelişimi,
- Düzenleyici çerçevenin gelişimi,
- Çeşitli alanlarda teknoloji değişimi,
- Sermaye piyasasında yatırım işbirliği ve bankalar arası işbirliğinin artması.

İki ülke arasındaki yakınsama kapsamında incelenen muhasebe sistemleri arasında benzerlik ve farklılıkların bulunduğu tespit edilmiştir. Her iki ülkede muhasebeyle ilgili tüm faaliyetler Muhasebe Kanunu kapsamında düzenlenmektedir. Çin'de muhasebeyle ilgili düzenlemeler Rusya'ya göre daha erken yapılmıştır. Bu durum Çin'in devlet olarak Rusya'ya göre çok daha erken kurulmasından kaynaklanmaktadır. Aynı zamanda Çin'deki mevzuatın Rusya'daki mevzuata göre daha istikrarlı olduğu tespit edilmiştir. Rusya'daki mevzuatın değişken yapıya sahip oluşu ülkenin tarihi, ekonomik, siyasi ve jeolojik durumundan kaynaklanmaktadır. Çin'deki muhasebe ve iç kontrol sistemiyle ilgili süreçler daha bağımsız ve istikrarlıyken Rusya'daki muhasebe sistemi daha katı yönetimle karakterize edilmektedir.

Her iki ülkede uluslararası standartlarla uyumlaşma kapsamında önemli çalışmalar yapılmıştır. Bu süreçte Çin'de Rusya'ya göre uluslararası uygulamalarla uyumlaşmayla ilgili daha fazla gelişme yaşanmıştır. Bu durum Çin'in liberalleşmesi ve piyasa ekonomisine girişinin Rusya'ya kıyasla daha erken başlamasından kaynaklanmaktadır. Çin'de UFRS'lere dayanarak hazırlanan ulusal standartlar

kapsamında yürütülen finansal raporlama, ekonomik işlemlerin gerçekliğini açıklamaya yönelikken, Rusya'daki standartlar kapsamındaki finansal raporlama ise daha çok vergilerin minimize edilmesi üzerine odaklanmaktadır.

Rusya ile Çin arasında ekonomik ve siyasi ilişkilerin gelişmesiyle yaşanan yakınsamanın, iki ülkenin muhasebe sürecinin yürütülmesi ve mali tablolarının hazırlanmasıyla ilgili deneyimlerinin sistemleştirilmesi modelinin oluşturulmasına ve gelecekte yapılacak işbirliği ve çalışmaların daha etkili ve sağlam olmasına önemli katkı sağlayacağı düşünülmektedir.

#### Kaynakça

Amurskaya, M.A. (2020). Çin Muhasebe Sisteminin Düzenlenmesinin Özellikleri. “Orta ve küçük Toplum” Oluşumunun Son Aşamasında Çin Devletinin Önemi İsimli Uluslararası Bilimsel Pratik Konferans Kitabı, 23-24 Mart, Moskova, Rusya, 390-404.

Çih, N.V., Oparina, V.V. ve Varakina, M.A. (2015). Rusya ve Çin Muhasebe Sistemlerinin Karşılaştırılması. Devlet, Hukuk ve Toplum Bilimleri İsimli Uluslararası Bilimsel Pratik Konferans Kitabı, 22-23 Nisan, Nijniy Novgorod, Rusya, 28-32.

Elkhova, D.A. ve Filatova, O.A. (2019). Rusya ve Çin’de Muhasebeleştirme Sürecinin Metodolojik Olarak Yürütülmesinin Karşılaştırılması. Rusya ve Çin: Gelişim Vektörü İsimli Uluslararası Bilimsel Pratik Konferans Kitabı, 18-19 Kasım, Blagoveshensk, Rusya, 204-207.

Hou, S. ve İlyina, A.V. (2018). Rusya ve Çin’in Muhasebe Sistemlerinin Karşılaştırmalı Analizi. Yüksel Ekonomi ve Yönetim Okulu Günleri İsimli Uluslararası Bilimsel Pratik Konferans Kitabı, 18-21 Nisan, Yekaterinburg, Rusya, 97-103.

Jinhua, G. ve Ying, L. (2015). Çin’de Muhasebe ve Raporlama. Muhasebe, Ekonomik Analiz ve Denetimin Güncel Durumu ve Gelişim Perspektifleri İsimli Uluslararası Bilimsel Pratik Konferans Kitabı, 17 Nisan, Irkutsk, Rusya, 61-67.

Lımar, M.P. (2016). Rusya ve Çin Bilançolarının Karşılaştırılması. Uluslararası Muhasebe Dergisi, 12, 2-40.

Lımar, M.P. (2017a). Rusya ve Çin Ulusal Muhasebe ve Raporlama Modellerinin Yakınsaması. (Yayımlanmamış Doktora Tezi). Finans Üniversitesi Sosyal Bilimler Enstitüsü Muhasebe ve İstatistik Anabilim Dalı, Moskova.

Lımar, M.P. (2017b). Rusya ve Çin Ulusal Muhasebe ve Raporlama Sistemlerinin Yakınlaşma Süreci. Volgograd Ekonomi Üniversitesi Dergisi, 4(41), 221-224.

Lımar, M.P. (2017c). Rusya ve Çin Ulusal Muhasebe Modellerinin Uyumlaştırılması Süreci. Rusya Çin: İşbirliği Tarih ve Gelişim Perspektifleri İsimli VII. Uluslararası Bilimsel Pratik Konferans Kitabı, Blagoveshensk-Heyhe, Rusya, 22-23 Mayıs, 691-695.

Lımar, M.P. (2018). Rusya ve Çin Ulusal Muhasebe Sistemleri: Yakınsama Süreci. Yenilikçi Ekonomi ve Yönetim: Yöntem ve Teknoloji İsimli II. Uluslararası Bilimsel Pratik Konferans Kitabı, 26 Ekim 2017, Moskova, Rusya, 406-409.

Nefedova, S.V. ve Alikanova, T.A. (2015). Rusya Çin Temel Muhasebe Prensiplerinin Karşılaştırmalı Analizi. Rusya Federasyonu Finans Üniversitesinin Tula Şubesi Dergisi, 4(2), 79-81.

Petrov, A.M. ve Amurskaya, M.A. (2020). Çin’de Muhasebenin Gelişiminin Metodolojik Yönleri. Toplumun Dijitalizasyonu Koşullarında Muhasebe, Analiz, Denetim Trendlerinin Araştırılması İsimli Finans Üniversitesi Öğretim Üyeleri ve Öğrencilerinin Bilimsel Araştırmalar Kitabı, Sputnik Plus Yayınları, Moskova, Rusya.

Petrov, A.M. ve Lımar, M.P. (2013). Rusya ve Çin’de Muhasebeyle İlgili Düzenlemelerin Karşılaştırmalı Özellikleri. *Uluslararası Muhasebe Dergisi*, 40(286), 52-60.

Polenova, S.N. (2017). Çin Muhasebesinin Yasal Düzenleme Sistemi ve Tarihi Geçmişi. *Denetim ve Finansal Analiz Dergisi*, 2, 54-59.

Suprunova, E.A. (2016). Rusya ve Çin’de Muhasebeleştirme Sürecinin Karşılaştırmalı Özellikleri. *Ekonominin Güncel Gelişim Sorunları İsimli Uluslararası Bilimsel Pratik Konferans Kitabı*, 9 Aralık, Omsk, Rusya, 524-527.

Suprunova, E.A. (2018). Rusya ve Çin’de Muhasebeleştirmenin Organizasyonu: Karşılaştırmalı Özellikler. *Yenilikçi Ekonomi ve Toplum Dergisi*, 2(20), 43-48.

Syaoju, L. ve Yuryeva, L.V. (2016). Çin’de Muhasebeleştirmenin Hukuki Uygulanışı. *Değişim Açısından Rusya Bölgeleri İsimli XI. Uluslararası Bilimsel Pratik Konferans Kitabı*, 17-19 Kasım, Yekaterinburg, Rusya, 716-720.

Vzyamina, D.V. (2018). Muhasebe Hesapları: Rusya ve Yabancı Uygulamaların Karşılaştırmalı Analizi. *Gençliğin Entelektüel ve Sanatsal Potansiyelinin Gelişimi: Geçmişten Geleceğe Perspektifleri İsimli I. Uluslararası Bilimsel Pratik Konferans Kitabı*, 8 Şubat, Donetsk, Rusya, 149-150.