



# ICONIL 2025 SPRING

4Th  
**INTERNATIONAL CONGRESS OF NEW  
SEARCHES IN MULTIDISCIPLINARY STUDIES**

**SOCIAL SCIENCES PROCEEDINGS BOOK**

JUNE 14-15, 2025 İSTANBUL / TÜRKİYE

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GÜNGÖREN BELEDİYESİ ALT+TAB KULUÇKA MERKEZİ GÜNGÖREN  
İSTANBUL / TÜRKİYE

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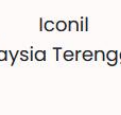
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**ABSTRACTS / POSTERS**

The abstract fields of the papers that have met all the conditions of the ICONIL 2025 SPRING congress as abstract, poster and full text will be shown on the following pages. In addition, the full texts of the papers that have been applied as full text are available on the following pages.

## THE ROLE OF SHARED MENTAL MODELS IN CLASSROOM MANAGEMENT: A CONCEPTUAL RESEARCH

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### **Abstract**

Classroom management is one of the key elements of creating an effective learning environment. Although teachers' decisions, practices, and student interactions within the classroom are largely based on individual knowledge, experience, and perceptions, the importance of the concept of "shared mental models" is increasingly emphasized. Shared mental models refer to individuals having similar understandings, expectations, and beliefs about a particular situation or system. This study aims to examine the effects of teachers and students' development of shared mental models on the teaching process in the context of classroom management. In the study, by using the literature review method, it was analyzed how shared mental models are formed in classroom dynamics, which components are affected and how they contribute to the learning process. In line with the theoretical and empirical studies in the literature, it has been revealed that effective classroom management is strengthened not only by the individual competencies of the teacher, but also by the common understandings formed in teacher-student and student-student interactions. In particular, the role of shared mental models in determining classroom rules, conflict resolution, time management and discipline practices is remarkable. In this context, the study suggests that for educators and policy makers, strategies for the development of shared mental models should be included in classroom management trainings. Thus, the cognitive harmony between teachers and students can be increased and the classroom learning climate can be made healthier.

**Keywords:** Classroom Management, Shared Mental Models, Teacher-student Interaction, Learning Environment

## TRUTH AND MEANING: A CONTEXTUALIZATION OF TRUTH CONDITIONS

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### **Abstract**

The relationship between truth and meaning has been for long one of the main subjects for investigation in philosophy of language and in philosophical logic. Two competing traditions have dominated philosophical explorations on the subject. On the one hand, there is a deflationist thesis which accesses the truth of truth-bearers (sentences and propositions) on the basis of an antecedent grasp of meaning; on the other hand, there is a Davidsonian or truth conditional thesis which seeks to explicate truth through meaning and defends that any theory of truth conditions is a theory of meaning. Both approaches, however, refer to Tarski's theory of truth in a radically different ways and conclude with two antithetical but non-contradictory positions. The aim of this paper is to analyze these two approaches to the relationship between truth and meaning in order to investigate and to contextualize their incompatibilities and see whether there is any approach between the two competing thesis which offers a better understanding of the relationship between truth and meaning.

**Keywords:** Truth, Meaning, Deflationism, Truth Conditionals

## ENTREPRENEURSHIP AND MULTICULTURALISM: A FUSION OF HORIZONS

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### **Abstract**

Geert Hofstede conducted a research on different cultures and established a metric which allows the comparison of deferent collective cultures. His research took into account five areas in different dimensions of human culture, which he technically named power distance, uncertainty avoidance, individualism/collectivism, masculinity/femininity, and long or short term orientations. Owing to his findings, it is nowadays demonstrated that cultural values which prevail in a given society largely influence people's business behavior and their organizational culture. This paper will depart from the five cultural dimensions of Hofstede to demonstrate how we can improve existing cultural values to motivate and build a collective entrepreneurial mindedness which can contribute as a drive force for advancing public development policy. The core aim of the work is to conceptualize a platform which appeals to detecting and supplementing collective cultural flaws with entrepreneurial awareness and skills in order to promote a public world view which help to promote a collective entrepreneurial mentality.

**Keywords:** Culture, Entrepreneurship, Mindset, Development

## **WOMEN PRESENTATION IN LOCAL GOVERNMENTS IN TÜRKİYE: THE CASE OF 31 MARCH 2024 ADMINISTRATIONS ELECTIONS**

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### **Abstract**

With the increasing awareness of rights and freedoms around the world, the steps taken in the field of equality between women and men have been effective in increasing the representation rates of women in many countries compared to the past. At this point, the policies pursued by international organisations and the adoption of these policies by states are of great importance. However, due to prejudices, social structure, traditions, political policies, legal regulations, etc., it does not seem possible to say that equality between women and men has been fully achieved in the political field in the world. It is an important reality that women become more visible in the political sphere as their educational and economic achievements increase. In this respect, it is of utmost importance to increase women's educational opportunities and access to educational opportunities, and their inclusion in economic life is also seen as a necessity for women to achieve political gains. Increasing the representation of women in political representation provides important data in terms of the democratic development indicator of states. The aim of this study is to make evaluations on the representation of women in local governments in Turkey based on the results of the Local Administrations Elections held on 31 March 2024. In line with this purpose, the data on women representatives elected according to the results of the Local Administrations held on 31 March 2024 in Turkey have been evaluated by subjecting them to comparison in terms of female-male ratios. The data obtained on 31 March 2024.

**Keywords:** Türkiye, Political Representtation, Local Government, Women



## EFFECTIVENESS OF PEER COUNSELING IN EDUCATIONAL SETTINGS: A META-ANALYTIC AND CROSS-CULTURAL SYSTEMATIC REVIEW

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### **Abstract**

This study aims to evaluate the effectiveness of peer counseling programs in educational settings on psychosocial and academic outcomes through a systematic review and meta-analysis. A total of 22 studies published between 2003 and 2024 were examined, 15 of which met the quantitative inclusion criteria and were included in the meta-analysis. The pooled effect size was found to be Cohen's  $d = 0.60$ , indicating a statistically significant and practically meaningful moderate effect of peer counseling interventions. Subgroup analyses revealed effect sizes of  $d = 0.84$  for university students,  $d = 0.61$  for high school students, and  $d = 0.65$  for middle school students. Interventions conducted in OECD countries showed higher and more consistent effect sizes, whereas those in non-OECD countries showed greater variability. Funnel plot and Egger's test results indicated low publication bias, and the heterogeneity index was  $I^2 = 74\%$ , suggesting considerable contextual diversity among studies. The findings suggest that when peer counseling programs are structured, culturally sensitive, and developmentally appropriate, they enhance both psychological resilience and academic performance. Key moderators of program effectiveness include the quality of mentor training, intervention duration, and contextual adaptation. The results are discussed within the theoretical frameworks of Bandura's Social Learning Theory and Lazarus's Coping Theory.

**Keywords:** Peer Counseling, Educational Settings, Meta-analysis, Psychosocial Adjustment, Social Learning Theory, Coping Theory

## DEVELOPMENT OF RADIO BROADCASTING IN THE EARLY YEARS OF THE REPUBLIC AND ITS EFFECTS ON SOCIETY

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### **Abstract**

The first regular radio broadcasts in Turkey began in 1927. This development was made possible by the Turkish Wireless Telephone Corporation, which was established in accordance with the instructions of Mustafa Kemal Atatürk to carry out radio broadcasting activities. This period when radio broadcasts began also coincided with the years when radical revolutions were implemented in the political, economic and social fields during the foundation process of the Republic. The fundamental goal of the revolutions carried out under Atatürk's leadership was the establishment of a modern, secular and national state governed by the rule of law. In order for this goal to be adopted and internalized by the masses, it was necessary to inform the public accurately, effectively and continuously. In this context, radio stood out as one of the most effective means of communication of the period. The meaning that radio carried for the Republican administration can be seen in the party program accepted after the 4th Grand Congress of the Republican People's Party, which stated that "The party considers radio as one of the most valuable means for the cultural and political education of the nation." Radio played an important role both in conveying the policies of the central government to the people and in the construction of the "ideal citizen" profile. Radio broadcasts, which started in Istanbul and Ankara, reached more places and people over time. In order for radio broadcasts to reach more people, loudspeakers were set up in the squares of Istanbul and Ankara. In addition, continuous revolution lessons were broadcast live on the radio in the community centers to spread national history and language awareness. These radio broadcasts consisted of programs designed to ensure that the revolutions were adopted and accepted by the society. In this sense, radio broadcasts during in the early years of the Republic can be evaluated as an indoctrinating propaganda activity aimed at the Rublic. In this study, the establishment process of the radio, which started broadcasting in the in the early years of the republic, and its effect on the social structure are examined. In addition, how the Republican administration effectively used radio, a mass communication tool, to ensure social change and transformation is included.

**Keywords:** Radio, Turkish Wireless Telephone Corporation, Early Republican Period, Nation-state, Social Impact

## INTERDISCIPLINARY APPROACH IN EDUCATION: A DOCUMENT ANALYSIS ON THE HAREZMI MODEL

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### **Abstract**

This study aims to examine the academic studies on the Harezmi Education Model, which is shaped in the context of the Turkish Century Education Model and stands out as an interdisciplinary educational approach, through document analysis method. In the study structured in qualitative research design, the data obtained from articles and graduate theses in the literature were evaluated with descriptive analysis technique. The findings of the analysis reveal that the Harezmi Education Model increases students' academic achievement levels, increases their attendance rates and improves their interdisciplinary thinking and problem solving skills. In addition, it was determined that the model reinforced the guidance roles of teachers, encouraged collaboration in learning-teaching processes and contributed to student-centered instructional designs. It was concluded that the model, which supports digital literacy skills thanks to its technology integration-based structure, offers an innovative, inclusive and sustainable educational ecosystem by prioritizing the active participation of all educational stakeholders in the process. In this context, the Harezmi Education Model is evaluated as a holistic and transformative approach in line with contemporary education paradigms.

**Keywords:** Interdisciplinary Learning, Harezmi Education Model, Innovation In Education

## TRADE EFFECTS OF CEFTA AGREEMENT ON AGRICULTURAL SECTOR IN ALBANIA EVIDENCES WITH CEFTA MEMBERS

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### **Abstract**

Since the beginning of the transition period, trade policy reforms have represented an important aspect of the economic policy framework in Albania, given the role of the foreign trade sector in the overall economic development of the country. Considering the fact that Albania has a significant share of its trade exchanges precisely with the Western Balkans region, specifically the CEFTA countries, the analysis focuses on the CEFTA agreement due to the importance that regional integration represents for a country like Albania. The agricultural sector remains of particular importance for Albania with its contribution to the country's GDP and employment in this sector, despite the fact that the contribution of this branch of the economy in both directions, has been declining from 1992-2022. Using the Gravity model, this study aims to analyze the trade of the agricultural sector with the CEFTA participating countries, specifically the empirical verification of trade creation or trade diversion effect of this agreement. The results of the models show that for this important sector, using also some dummy variables, distance is an important factor in Albania's foreign trade and our country has the highest exchanges with countries that shares a common border. The lack of significance of the dummy trade creation variable means that for Albania the CEFTA agreement has not created trade opportunities beyond those considered normal for the agricultural sector. The impact of population (as an expression of the economic size of a country) is consistent with what the literature claims, specifically a 1% increase in population increases the total volume of agricultural products by 0.36% with the CEFTA members.

**Keywords:** Cefta Agreement, Agricultural Sector, Gravity Model, Albania

## AN INVESTIGATION OF THE RELATIONSHIP BETWEEN SCREEN USE HABITS AND ATTENTION DEFICIT DISORDER IN GIFTED ELEMENTARY SCHOOL STUDENTS

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### Abstract

Today, the rapid spread of digital technologies and the ease of access to smartphones and internet use have led to a significant increase in the screen usage time of children, especially in the younger age group. Problematic use of technology can lead to various behavioural problems and addictions in children, especially attention deficit, while negatively affecting their family, academic and social lives. Although the cognitive and psychomotor development of gifted children differs from that of their peers, the possible effects of excessive screen exposure on attention deficit and psychomotor performance in these children have not yet been adequately investigated. This study aims to fill this gap in the literature by examining the relationship between screen use habits of gifted children and their attention span and psychomotor skills. The correlational survey design, one of the survey models, was used in the study. A total of 17 gifted students, 6 girls and 11 boys, aged 9-11 years, receiving support education in Sakarya province, participated. Data about screen usage habits was collected with the demographic information form developed by the researchers, while the D2 Attention Test was administered in small groups to measure the attention level, psychomotor speed and learning level of the participants. Mean and percentage (%) analysis and Pearson Correlation Analysis were used to analyse the data. In the study, 10 students were found to have attention deficit. It was found that students with attention deficit mostly used smartphones (90%), television (80%) and tablets (50%), while students without attention deficit mostly used television (71.40%). It was found that smartphone use had a moderate positive relationship with attention deficit ( $r=0.45$ ) and a moderate negative relationship with psychomotor performance ( $r=-0.42$ ) and these relationships were significant at the level of ( $p<0.05$ ). 4 hours or more of screen use had a very strong positive relationship with attention deficit ( $r=0.68$ ) and a very strong negative relationship with psychomotor performance ( $r=-0.70$ ), while screen use for watching short videos (shorts, reels, etc.) had a strong positive relationship with attention deficit ( $r=0.75$ ) and a moderate negative relationship with psychomotor performance ( $r=-0.40$ ). As a result, it is understood that there are significant



relationships between technology and screen use and attention deficit and low psychomotor performance, and this situation affects gifted children who exhibit different development compared to their peers as well as children with normal development.

**Keywords:** The Gifted, Screen Use, Short Videos, Attention Deficit, Psychomotor Performance

\*This study is a study prepared to be presented as an oral presentation by the students of Sakarya Science and Art Center by making use of the scientific research carried out within the scope of TÜBİTAK 2204-A.

## NOSTALGIA AND SELF-DISCREPANCIES: A CONCEPTUAL REVIEW OF PSYCHOLOGICAL FUNCTIONS

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### **Abstract**

Nostalgia is defined as “a sentimental longing for the past.” Recent studies reveal that nostalgia functions not only as a recollective experience associated with positive emotions but also as a regulatory mechanism that provides psychological benefits and plays a role in the construction of individuals’ self-perception. On the other hand, the theory of self-discrepancies categorizes individuals’ self-representations into three main domains: the actual self, the ideal self, and the ought self; and suggests that discrepancies between these self-domains have negative effects on psychological well-being. Existing literature shows that nostalgia may serve a buffering function against the negative consequences of self-discrepancies, through its positive effects on psychological variables such as self-continuity, life satisfaction and meaning, self-esteem, authenticity, and positive affect. In this context, the main aim of this study is to examine the relationship between nostalgia and self-discrepancies within a theoretical framework and to discuss possible explanations—based on existing literature—of how nostalgia may alleviate the psychological distress caused by such discrepancies. This study aims to provide a conceptual foundation for future experimental research.

**Keywords:** Nostalgia, Self-discrepancies, Self-representations, Psychological Well-being, Emotional Regulation

## EXPLORING YOUNG ADULTS' USE OF RELIGIOUS BELIEFS IN COPING WITH DIFFICULT LIFE EVENTS

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### Abstract

Young adulthood is a period in which the individual develops an identity and copes with stress and uncertainties. In this period, individuals can use religious coping systems to support their psychological systems during difficult life events. Religious coping is the individual's turning to religious beliefs and practices to cope with difficult life events such as loss, stress or loneliness. In this process, prayer, patience, trust, and participation in religious activities are common. In addition, coping styles of individuals during difficult life events are influenced by family, social environment and cultural norms. Therefore, the aim of this study is to examine young adults' experiences of using religious belief in coping with difficult life events. In the study, semi-structured interviews were conducted with qualitative model. The form prepared by the researchers included eight open-ended questions to examine young adults' experiences of using religion in coping with difficult life events. The study group consisted of 10 participants from the young adult (18-30) group. Participants were selected through purposive sampling. Semi-structured interviews were conducted in online and face-to-face sessions, each lasting approximately 25 minutes. The data were analyzed by content analysis method. According to the findings, young adults mostly use their religious beliefs to give meaning, hope and refuge in situations they cannot control. Family, social environment and cultural values are important concepts in religious coping with difficult life events. In this context, religious coping should be handled together with culture in psychological counseling processes.

**Keywords:** Religious Coping, Cultural Sensitivity, Spiritual Counseling, Psychological Counseling, Young Adults

## **MEDIATION OF SPIRITUAL TRANSCENDENCE IN THE RELATIONSHIP BETWEEN EMPATHY AND PSYCHOLOGICAL RESILIENCE**

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### **Abstract**

Empathy is an important emotion that affects the well-being of the individual, which is important for human relationships. Psychological resilience is the capacity to cope with challenging and stressful situations. Spiritual transcendence is the individual's transcendence of self and connection with a higher system. In the literature, the relationship of variables with many variables has been examined and the mediating role of spiritual transcendence has been determined. In this study, the mediating role of spiritual transcendence in the relationship between empathy levels of psychological counseling and guidance students and psychological resilience will be examined. Thus, it may facilitate understanding the effect of spiritual elements on emotional well-being and psychological resilience while developing counseling skills for psychological counseling and guidance students. The sample of the study consists of 205 psychological counseling students. Personal Information Form, Empathy Level Determination Scale, Brief Psychological Resilience Scale and Spiritual Transcendence Scale prepared by the researcher were used as data collection tools. According to the findings obtained from the study, spiritual transcendence plays a partial mediating role in the relationship between empathy levels and psychological resilience.

**Keywords:** Psychological Counseling, Empathy Level, Psychological Resilience, Spiritual Transcendence

## THE RELATIONSHIP BETWEEN ADHD AND DEMENTIA: A REVIEW BASED ON AN INTERNATIONAL COHORT STUDIES

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### **Abstract**

Attention deficit hyperactivity disorder (ADHD) is a neurodevelopmental disorder that negatively impacts quality of life throughout childhood, adulthood and old age. People with ADHD may struggle to focus and exercise self-control. This condition can affect daily life for both children and adults. ADHD can make it difficult for children to succeed at school, and for adults to succeed in the workplace or in their personal lives. In recent years, the relationship between ADHD and cognitive decline in older adults, particularly in the context of dementia risk, has attracted attention. This paper aims to evaluate the potential causal relationship between ADHD and dementia by examining large-scale epidemiological studies conducted in various countries. This report summarises four key studies, published within the last 10 years, which used population-based cohort data. The studies, which were conducted in Taiwan, Sweden and Israel, examined the risk of individuals diagnosed with ADHD developing dementia and mild cognitive impairment (MCI) in old age.

**Keywords:** Keywords: Adhd, Dementia, Alzheimer's, Cohort, Neuropsychology



## PARTICIPATION BANKING AND ISLAMIC FINANCIAL LITERACY

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### Abstract

Participation banking is a banking model that adopts an interest-free finance approach and establishes a partnership relationship with its customers based on profit and loss sharing. This system not only provides financing but also directly contributes to the production, trade, and service sectors, thus supporting economic growth. Within the scope of participation banking, methods such as trading goods, joint investments, financial leasing, and sukuk are used, all shaped according to the principles of interest-free finance. These products and services are structured based on the sharing of risk and returns between the parties and offer a financial relationship built on trust. At this point, individuals' awareness and knowledge levels regarding participation banking gain importance. Islamic financial literacy refers to individuals being knowledgeable about participation-based products and interest-free finance principles, and being able to make conscious choices by evaluating this knowledge. In this context, individuals' awareness of the system's functioning, religious sensitivities, financial behavior patterns, and general economic consciousness constitute the core components of this literacy. It is frequently emphasized in the literature that individuals with a high level of Islamic financial literacy are more inclined towards participation banking products and adopt these products with greater confidence. Therefore, it is important for individuals to be familiar with the interest-free finance system in order to make conscious financial decisions. This study reviews national and international literature that addresses the relationship between Islamic financial literacy and the adoption of participation banking. — This study is derived from the master's thesis conducted by Edanur Kapıcıoğlu under the supervision of Prof. Dr. Halil Emre Akbaş in the Business Management Master's Program at Yıldız Technical University, Institute of Social Sciences.

**Keywords:** Participation Banking , Interest-free Finance , Islamic Financial Literacy

\*This study was produced from the master's thesis carried out by Edanur Kapıcıoğlu under the supervision of Prof. Dr. Halil Emre Akbaş in Yıldız Technical University Institute of Social Sciences Business Management Master's Program.

## MORAL IDENTITY DEVELOPMENT AND EMPATHY: AN INVESTIGATION IN THE CONTEXT OF SPORT

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### Abstract

Adolescence is a critical developmental period during which individuals shape their identity, values, and social skills. Sports activities during this phase can foster both cognitive and emotional empathic tendencies, while also offering a supportive environment for moral identity development. The sports setting, through its emphasis on interaction and cooperation, is considered a meaningful context for nurturing these traits. This study aims to examine the relationship between moral identity and empathic tendencies among high school students in adolescence. This quantitative study employed a correlational survey model. The sample consisted of 140 voluntary high school students in adolescence who regularly participate in sports clubs in the provinces of Afyonkarahisar and İzmir. Data were collected using a personal information form developed by the researcher, the Moral Identity Scale (Yılmaz & Yılmaz, 2015), and the Empathy in Sports Environment Scale (Erkuş & Yakupoğlu, 2001). Descriptive statistics, correlation analysis, and one-way ANOVA were used to analyze the data. Participants' average levels of moral identity and empathy in sports were generally high, with data showing normal distribution. A significant difference was found only in the internalization subscale of moral identity based on sports branch ( $p < .05$ ); no significant differences were identified in symbolization or empathy sub-dimensions ( $p > .05$ ). No relationship was observed between internalization and cognitive empathy in sports, whereas emotional empathy in sports and general empathy in the sports environment showed weak positive correlations. Symbolization was weakly and positively associated with all sub-dimensions of empathy in sports. A weak negative correlation was also found between age and both symbolization and emotional empathy in sports ( $p < .05$ ,  $p < .01$ ). Findings show that students generally exhibit high levels of moral identity, and football players scored significantly higher on internalization than handball players. Moral identity and empathy in the sports environment were positively related. As age increased, levels of symbolization and emotional empathy tended to decline. The results suggest that sports may influence moral development differently across disciplines and that empathic tendencies vary with age.

**Keywords:** Moral Identity, Empathy, Sport

## RELATIONSHIP BETWEEN JOB CHARACTERISTICS AND JOB ALIENATION

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### Abstract

In today's working life, with developing technology and changing working conditions, it is becoming harder for people to adapt to their jobs. In recent years, the tendency of employees to feel alienated from their work has increased significantly. Employees face not only physical but also psychological and social challenges in their jobs. Especially in the service sector and knowledge-based professions, people see their jobs not only as a source of income but also as part of their identity. For this reason, the nature of the job has a deep impact on them. Factors like digitalization, increasing regulatory responsibilities, and heavy workloads can weaken employees' emotional connection to their work. Depending on the job characteristics, this may lead to job alienation. Job characteristics are the features that define an employee's motivation towards work (Hackman and Oldham, 1975). These features affect the employee's commitment and motivation. Many years of research on job characteristics have shown how important this topic is. The main elements affecting motivation are examined under five groups: task identity, job autonomy, feedback, skill variety, and task significance. When employees face problems in these areas, their sense of belonging to their work decreases, leading to alienation. At this point, we come across the second important term: "job alienation." Job alienation is described as the disappointment that occurs when a person is unable to realize their career goals, professional standards, or personal development (Aiken and Hage, 1966: 497). The first concept, job characteristics, was introduced by Hackman and Oldham (1975). This concept was developed to examine and improve employees' work motivation and the internal factors that influence it. The five features mentioned here are key factors for an employee's attitude towards work, productivity, and job satisfaction. The second concept, job alienation, was first clearly used by Hegel (1967), but Karl Marx (1844) is known as the first to analyze it in depth. Job alienation means the employee gradually distancing themselves from their work and losing interest in it. This happens, often unconsciously, due to the work environment and job characteristics. This study aims to contribute to the literature by examining the effects of job characteristics on job alienation. \*This study is produced from the master's thesis conducted by Tuğçe Nazlıcan ÇAKAR under the supervision of Prof. Dr. Halil Emre Akbaş in the Business Administration Master's Program at Yıldız Technical University, Institute of Social Sciences.

**Keywords:** Job Characteristics, Job Alienation, Literature Review

\*This study is produced from the master's thesis carried out by Tuğçe Nazlıcan ÇAKAR under the supervision of Prof. Dr. Halil Emre Akbaş in Yıldız Technical University Institute of Social Sciences Business Management Master's Program.

## GLOBAL PROTECTION TOOL ON THE AGENDA OF FOREIGN TRADE WARS: POLITICAL RISK INSURANCES

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### Abstract

In the 21st century, military and hard power elements have generally given way to soft power elements, and today, foreign trade wars have begun on a global scale. Customs tax practices, embargoes, boycotts and trade policy measures are the most important tools of soft power within the scope of foreign trade wars. Giant economies, which aim to liberalize foreign trade on common principles, can now take sudden restrictive measures in foreign trade. Examples of hot developments include the US President setting high customs tariffs on imports to China and the EU in April 2025, etc. Giant economies are likely to take harsher retaliatory decisions in the wake of these developments. This situation is likely to cause an increase in speculative management in foreign trade, affect all countries that receive their share from foreign trade, and cause economic imbalances and uncertainty. All foreign trade companies, especially exporters who use imported inputs in production, are at risk in an environment of uncertainty. Uncertainty also negatively affects tourism revenues, which are considered export revenues. Political tensions and the restrictive travel policies that come with them also lead to a decrease in tourist numbers. Political risk insurance, which is discussed in the study, is a critical protection tool in the international trade and international tourism sectors. It also provides financial institutions with flexibility in terms of country limits, allowing them to find long-term financing with better conditions. The method chosen in the study is the literature review and the subject is discussed within the framework of political risk insurance, which has recently gained importance. It has been noted that there are no up-to-date and sufficient publications in the literature on the subject of the study. The difficulties in the use of political risk insurance, which includes economic embargo, terrorism, climate risks, etc., have also been determined. The need to develop its scope and use is also important. As a result, the study aims to shed light on international trade, international tourism and insurance sectors, academics in the field and emphasizes the importance of political risk insurance.

**Keywords:** International Trade Financing, Political Risk Insurance, International Tourism, Foreign Trade, Soft Power

## **ANALYSIS OF THE IMPACT OF INFLATION ON WORKLOAD AND HUMAN RESOURCE REQUIREMENTS IN BANKING BRANCHES USING AN AI- SUPPORTED**

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### **Abstract**

This thesis analyzes the impact of inflation a key macroeconomic variable on transaction volume and labor demand in bank branches, particularly in the context of the rapid evolution of digital banking. The main objective of the study is to examine how rising or falling inflation trends affect operational indicators such as transaction count and transaction duration, and to estimate the resulting human resource requirements using an artificial intelligence-based model. Within the scope of the study, annual data on transaction volume, transaction duration, and inflation rates from select bank branches operating in Turkey were collected and analyzed through a predictive AI model. The model evaluates the relationship between inflation and branch-level operations, and estimates workforce metrics such as Full-Time Equivalent (FTE) and Headcount (HC). The results reveal that while digitalization leads to a reduction in branch transactions, macroeconomic fluctuations continue to play a significant role. This underscores the need for banks to incorporate not only digitalization trends but also economic indicators into their human resource planning strategies. The study offers a practical example of how AI-supported analysis can be integrated into strategic decision-making processes in the banking sector.

**Keywords:** Digital Banking, Artificial Intelligence, Worforce Planning, Transaction Volume



## **FULL TEXT PAPERS**

In this area, there are full-text papers sent to the ICONIL 2025 SPRING congress that meet the conditions of the congress.

## SINIF YÖNETİMİNDE ORTAK ZİHİNSEL MODELLERİN ROLÜ: KAVRAMSAL BİR İNCELEME

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### Özet

Sınıf yönetimi, etkili bir öğrenme ortamı oluşturma temel unsurlarından biridir. Öğretmenlerin sınıf içindeki kararları, uygulamaları ve öğrenci etkileşimleri, büyük ölçüde bireysel bilgi, deneyim ve algılara dayansa da, giderek artan bir şekilde “ortak zihinsel modeller” kavramının önemi vurgulanmaktadır. Ortak zihinsel modeller, bireylerin belirli bir durum veya sistem hakkında benzer anlayış, beklenti ve inançlara sahip olmasını ifade eder. Bu çalışma, sınıf yönetimi bağlamında öğretmenlerin ve öğrencilerin ortak zihinsel modeller geliştirmesinin öğretim sürecine olan etkilerini incelemeyi amaçlamaktadır. Çalışmada literatür taraması yöntemi kullanılarak, sınıf içi dinamiklerde ortak zihinsel modellerin nasıl oluştuğu, hangi bileşenlerden etkilendiği ve öğrenme sürecine nasıl katkı sağladığı analiz edilmiştir. Alan yazındaki kuramsal ve ampirik çalışmalar doğrultusunda, etkili sınıf yönetiminin yalnızca öğretmenin bireysel yetkinlikleriyle değil, aynı zamanda öğretmen-öğrenci ve öğrenci-öğrenci etkileşimlerinde oluşan ortak anlayışlarla güçlendiği ortaya konmuştur. Özellikle sınıf kurallarının belirlenmesi, çatışma çözümü, zaman yönetimi ve disiplin uygulamalarında ortak zihinsel modellerin rolü dikkat çekicidir. Bu bağlamda çalışma, eğitimciler ve politika yapımcılar için, sınıf yönetimi eğitimlerinde ortak zihinsel modellerin geliştirilmesine yönelik stratejilerin dahil edilmesi gerektiğini önermektedir. Böylece öğretmen ve öğrenciler arasındaki bilişsel uyum artırılarak sınıf içi öğrenme iklimi daha sağlıklı hale getirilebilir.

**Anahtar Kelimeler:** Sınıf yönetimi, ortak zihinsel modeller, öğretmen-öğrenci etkileşimi, öğrenme ortamı

## THE ROLE OF SHARED MENTAL MODELS IN CLASSROOM MANAGEMENT: A CONCEPTUAL RESEARCH

### Abstract

Classroom management is one of the key elements of creating an effective learning environment. Although teachers' decisions, practices, and student interactions within the classroom are largely based on individual knowledge, experience, and perceptions, the importance of the concept of "shared mental models" is increasingly emphasized. Shared mental models refer to individuals having similar understandings, expectations, and beliefs about a particular situation or system. This study aims to examine the effects of teachers and students' development of shared mental models on the teaching process in the context of classroom management. In the study, by using the literature review method, it was analyzed how shared mental models are formed in classroom dynamics, which components are affected and how they contribute to the learning process. In line with the theoretical and empirical studies in the literature, it has been revealed that effective classroom management is strengthened not only by the individual competencies of the teacher, but also by the common understandings formed in teacher-student and student-student interactions. In particular, the role of shared mental models in determining classroom rules, conflict resolution, time management and discipline practices is remarkable. In this context, the study suggests that for educators and policy makers, strategies for the development of shared mental models should be included in classroom management trainings. Thus, the cognitive harmony between teachers and students can be increased and the classroom learning climate can be made healthier.

**Keywords:** Classroom management, shared mental models, teacher-student interaction, learning environment

## 1. GİRİŞ

Sınıf yönetimi, eğitim sürecinde hem öğretim etkinliğinin artırılması hem de öğrenci başarısının desteklenmesi açısından merkezi bir rol oynamaktadır. Etkili bir sınıf yönetimi, yalnızca düzeni sağlamakla kalmaz, aynı zamanda öğrencilerin öğrenmeye odaklanmalarına, kendilerini güvende hissetmelerine ve sınıf içinde aktif katılım göstermelerine olanak tanır (Evertson & Weinstein, 2006). Bu bağlamda öğretmenlerin sınıf içindeki kararları, uygulamaları ve öğrenci etkileşimleri genellikle bireysel pedagojik bilgi, deneyim ve kişisel özellikler temelinde şekillenir. Ancak son yıllarda, öğretim sürecini sadece bireysel faktörlerle değil, aynı zamanda sosyal ve bilişsel etkileşimlerle de açıklayan daha kapsamlı yaklaşımlar öne çıkmaya başlamıştır.

Bu yaklaşımlardan biri olan ortak zihinsel modeller (Shared Mental Models), öğrenme ortamlarında yer alan bireylerin belirli bir konu, süreç veya sistem hakkında benzer anlayışlara, beklentilere ve stratejilere sahip olmalarını ifade eder (Cannon-Bowers, Salas & Converse, 1993). Ortak zihinsel modeller, başlangıçta ekip çalışmaları ve yüksek riskli görevlerde (örneğin havacılık, sağlık hizmetleri) koordinasyonu artırmak amacıyla incelenmiş, daha sonra eğitim bağlamına da uyarlanmıştır (Rentsch & Hall, 1994). Eğitim ortamlarında ise öğretmenler ve öğrenciler arasında paylaşılan bu tür bilişsel yapılar, sınıf içi süreçlerin daha etkili yönetilmesini, rol beklentilerinin netleşmesini ve öğrenme sürecinin daha anlamlı hale gelmesini sağlayabilir (Levine v.d., 2002).

Sınıf yönetiminde ortak zihinsel modellerin önemi, özellikle öğretmen-öğrenci etkileşimlerinde karşılıklı anlayış, güven ve koordinasyon gerektiren durumlarda belirginleşir. Bu modeller, taraflar arasında anlam birliğini ve iletişim verimliliğini artırarak, sınıf içindeki davranışsal normların daha hızlı kabul görmesine yardımcı olur (Mohammed, Ferzandi & Hamilton, 2010). Örneğin, sınıf kurallarının önceden ve birlikte belirlenmiş olması, hem öğretmen hem de öğrenciler için ortak bir referans çerçevesi oluşturarak sınıf yönetimini kolaylaştırır. Bu nedenle, sadece öğretmenlerin bireysel yetkinlikleri değil, aynı zamanda sınıf içindeki tüm paydaşlar arasında gelişen ortak anlayışlar da etkili sınıf yönetimi için belirleyici hale gelmektedir.

Bu çalışmada, sınıf yönetimi bağlamında ortak zihinsel modellerin işlevi kuramsal olarak ele alınmakta; öğretmenler ve öğrenciler arasında paylaşılan zihinsel yapıların sınıf içi etkileşimlere, öğrenme iklimine ve davranışsal düzenlemelere olan katkısı incelenmektedir. Çalışma, literatür taraması yöntemiyle alan yazında yer alan kuramsal ve ampirik çalışmaları derlemekte ve bu kapsamda eğitimciler için uygulanabilir çıkarımlar sunmayı hedeflemektedir.

## 2. KURAMSAL ÇERÇEVE: ORTAK ZİHİNSEL MODELLER VE SINIF YÖNETİMİ

Ortak zihinsel modeller (OZM), bireylerin belirli bir görev, süreç veya durum hakkında paylaştığı benzer bilgi yapılarını, beklentileri ve anlayış kalıplarını ifade eder. Bu kavram ilk kez Craik (1943) tarafından bireylerin çevrelerini anlamlandırma ve öngörme yeteneklerini açıklamak üzere ortaya atılmış, daha sonra Johnson-Laird (1983) tarafından geliştirilen zihinsel model teorisi ile bilişsel psikoloji ve yapay zekâ alanlarında da önem kazanmıştır. Ortak zihinsel modeller, özellikle karmaşık görevlerin yerine getirildiği ekip çalışmalarında koordinasyonu, öngörü ve karar alma süreçlerini kolaylaştırıcı bir unsur olarak tanımlanmıştır (Cannon-Bowers, Salas & Converse, 1993).

Eğitim bağlamında ise bu modeller, öğretmen ve öğrenciler arasında oluşan ortak bilgi temelli anlayışlar olarak değerlendirilir. Ortak zihinsel modellerin sınıf yönetimine entegrasyonu, sınıf içindeki rollerin, beklentilerin ve normların paylaşılması yoluyla hem bilişsel hem de davranışsal uyumu teşvik eder (Levesque, Wilson & Wholey, 2001). Örneğin, sınıf kurallarının açık bir biçimde belirlenmesi ve bu kurallar hakkında öğretmen ve öğrenciler arasında ortak bir anlayışın gelişmesi, sınıf içinde daha az davranış problemi yaşanmasına katkı sağlayabilir. Ayrıca bu tür modeller, öğrencilerin öğretmenin tutumlarını ve tepkilerini öngörmesine, öğretmenlerin de öğrencilerin tepkilerini daha isabetli biçimde tahmin etmesine olanak tanır (Mohammed v.d., 2010).

Sınıf yönetimi, yalnızca fiziksel düzenlemeler ya da disiplin stratejileriyle sınırlı bir alan değildir; aynı zamanda ilişkisel ve psikolojik bir süreçtir. Bu süreçte öğretmen ve öğrencilerin, sınıf ortamına dair zihinsel temsilleri ne kadar örtüşüyorsa, etkileşim kalitesi de o derece artmakta ve öğrenme ortamı daha verimli hale gelmektedir (Rentsch & Klimoski, 2001). Özellikle sınıf kurallarına ilişkin ön kabuller, zaman yönetimi uygulamaları, grup çalışması süreçleri ve problem çözme yaklaşımları gibi konular, ortak zihinsel modellerin etkili olduğu başlıca alanlardır.

Sınıf yönetiminde OZM'lerin etkisi üç ana boyutta değerlendirilebilir:

- Bilişsel Uyum: Öğretmen ve öğrenciler arasında bilgi paylaşımının etkili olması, hatalı anlamaların azalması.
- İletişim Verimliliği: Ortak bir terminoloji ve anlayış zemini üzerinden daha hızlı ve anlamlı etkileşim kurulması.
- Koordinasyon ve Tahmin: Tarafların birbirlerinin niyet, tepki ve davranışlarını öngörebilmesiyle çatışmaların azalması.

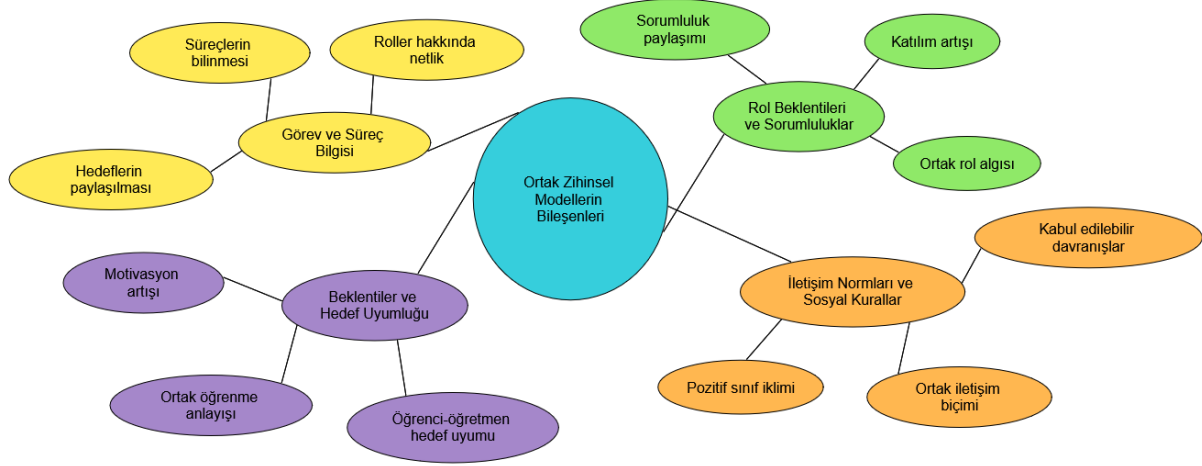
Bu çerçevede öğretmen-öğrenci ve öğrenci-öğrenci etkileşimlerinde gelişen ortak zihinsel modeller, sadece sınıf düzeninin korunmasında değil, aynı zamanda öğrencilerin sosyal-duygusal gelişimi ve akademik başarısının desteklenmesinde de kritik rol oynar (Salas, Cooke & Rosen, 2008). Sınıf yönetimi sürecinde bu modellerin bilinçli biçimde oluşturulması ve desteklenmesi, öğretim ortamının daha demokratik ve iş birliğine dayalı hale gelmesini sağlayabilir.

## 2.1. Eğitim Ortamlarında Ortak Zihinsel Modellerin Bileşenleri

Ortak zihinsel modellerin eğitim ortamlarında etkili biçimde işleyebilmesi, bu modellerin belirli bilişsel ve sosyal bileşenlere dayanmasına bağlıdır. Cannon-Bowers ve Salas'a (2001) göre, ortak zihinsel modeller; ekip üyeleri arasında bilgi paylaşımını kolaylaştıran, görevlerin nasıl yapılacağına ve ekip üyelerinin rollerine dair ortak bir anlayış sunan yapılardır. Bu bağlamda sınıf ortamında gelişen ortak zihinsel modellerin dört temel bileşen altında incelenebileceği söylenebilir:

1. Görev ve Süreç Bilgisi: Öğrenciler ve öğretmenlerin dersin hedefleri, öğrenme süreçleri ve sınıf içi etkinliklerin nasıl yürütüleceği konusunda benzer bilgi yapısına sahip olması, öğrenme ortamında koordinasyonu artırır (Mathieu, Heffner, Goodwin, Salas & Cannon-Bowers, 2000). Örneğin grup çalışmalarında sürecin nasıl işleyeceği, rollerin nasıl paylaşılacağı konusundaki ortak anlayış, etkinliğin verimliliğini doğrudan etkiler.
2. Rol Beklentileri ve Sorumluluklar: Öğretmen ve öğrenciler arasında rol dağılımına ilişkin ortak algı, sınıf yönetiminin istikrarını destekler. Öğrencilerin sınıf içinde neyin kendi sorumluluğunda olduğunu bilmesi, pasif bekleyişi azaltır ve katılımı artırır (Rentsch & Klimoski, 2001).
3. İletişim Normları ve Sosyal Kurallar: Sınıf içinde iletişimin nasıl kurulacağı, hangi davranışların kabul edilebilir olduğu gibi konular, öğrenciler ve öğretmen arasında örtüşen sosyal normlarla düzenlenir. Ortak iletişim modelleri, yanlış anlamaları azaltır ve olumlu bir sınıf iklimi oluşturur (Levesque, Wilson & Wholey, 2001).
4. Beklentiler ve Hedef Uyumluğu: Öğrencilerin öğrenmeden ne beklediği ile öğretmenin dersle ilgili hedeflerinin uyumlu olması, öğrenme sürecine olan motivasyonu artırır. Özellikle öğrenme çıktıları konusunda gelişen ortak anlayış, ders sürecinin amacını herkes için daha görünür kılar (Mohammed, Ferzandi & Hamilton, 2010).

Bu bileşenlerin sınıf içinde birlikte işlemesi, öğretmen-öğrenci ve öğrenci-öğrenci etkileşimlerinde bilişsel senkronizasyonu teşvik eder. Böylece sınıf yönetimi daha öngörülebilir, istikrarlı ve etkili bir hâl alır. Ayrıca, bu tür modellerin gelişimi zaman içinde tekrarlayan etkileşimler ve açık iletişim yoluyla desteklenmelidir. Öğrencilerle birlikte sınıf kuralları oluşturulması, beklentilerin başta netleştirilmesi ve sınıf içi yansıtıcı değerlendirmelerin yapılması, ortak zihinsel model oluşumunu güçlendiren stratejiler arasında sayılabilir (Salas, Cooke & Rosen, 2008).



**Şekil 1.** Eğitim Ortamlarında Ortak Zihinsel Modellerin Bilişenleri

Kaynak: Yazar

## 2.2. Sınıf Yönetiminde Karşılaşılan Zorluklar

Sınıf yönetimi, öğretmenin pedagojik bilgisi, iletişim becerisi ve liderlik özellikleri gibi birçok bileşene bağlı olarak şekillenir. Ancak, öğretmenin bu bireysel nitelikleri ne kadar gelişmiş olursa olsun, sınıf ortamı dinamik, çok aktörlü ve karmaşık bir yapıya sahiptir. Bu nedenle sınıf yönetiminde farklı türden zorluklarla karşılaşılması kaçınılmazdır. Nitekim sınıf ortamı; öğrenci çeşitliliği, sosyal ilişkiler, öğrenme stilleri ve çevresel faktörler gibi birçok değişkenin bir araya geldiği, çok boyutlu bir yapı sunar (Evertson & Weinstein, 2006). Literatürde bu zorluklar hem bireysel hem de çevresel etkenlerle ilişkilendirilmekte ve genellikle şu başlıklar altında toplanmaktadır:

**Davranışsal Disiplin Sorunları:** Sınıf içindeki en yaygın zorluklardan biri, öğrencilerin öğrenme sürecini olumsuz etkileyen istenmeyen davranışlardır. Öğrencilerin sınıf kurallarına uymakta isteksiz olması, dikkat dağınıklığı, sınıf arkadaşlarıyla çatışmalar gibi durumlar öğretmenin sınıf üzerindeki kontrolünü zorlaştırır (Marzano & Marzano, 2003). Bu tür sorunlar, öğretmen ve öğrenciler arasında yeterince gelişmemiş ortak zihinsel modellerin göstergesi olabilir.

**Çeşitli Öğrenci Profillerinin Yönetimi:** Sınıflarda öğrenciler; yaş, akademik düzey, sosyoekonomik arka plan, öğrenme şekilleri ve kültürel farklılıklar açısından büyük çeşitlilik gösterir. Bu çeşitlilik, öğretmenin tüm öğrencilere eşit ve etkili biçimde ulaşmasını güçleştirebilir (Tomlinson, 2001). Öğrenciler arasındaki beklenti farklılıkları ve öğretmenle örtüşmeyen ön kabuller, iletişim sorunlarına ve yanlış anlaşılmalara yol açabilir.

**Öğretmen-Tutum ve Tutarlılık Eksikliği:** Araştırmalar, öğretmenlerin sınıf yönetiminde tutarlı davranış sergilemediği durumlarda, öğrencilerde kafa karışıklığı ve güvensizlik duygusu oluştuğunu ortaya koymaktadır (Evertson & Weinstein, 2006). Bu durum, öğretmen ile öğrenciler arasında ortak bir normlar ve değerler sisteminin kurulamamış olmasıyla da ilişkilidir. OZM'lerin yetersizliği, kuralların uygulanmasında belirsizlik meydana getirir.

**Zaman Yönetimi ve Ders Süreçlerinin Kontrolü:** Sınıf içi zamanın verimli kullanılamaması, geçişlerin düzensizliği ve öğretim sürecinin dağılması da öğretmenlerin sık karşılaştığı sorunlar arasındadır. Özellikle dersin yapısı, etkinliklerin sıralanışı ve beklentilerin net olmadığı durumlarda zaman kaybı yaşanmakta ve öğretim kalitesi düşmektedir (Emmer & Evertson, 2016). Oysa paylaşılan zihinsel modeller, bu tür organizasyonel süreçlerin öngörülebilirliğini artırabilir.

**İletişim Yetersizlikleri ve Geri Bildirim Eksikliği:** Etkili sınıf yönetimi için öğretmen ve öğrenciler arasında açık, çift yönlü ve anlamlı bir iletişim gereklidir. Ancak bazı durumlarda öğretmenler geri bildirim vermez ya da öğrenci katkılarını yeterince dikkate almaz. Bu da sınıf içi etkileşimin kalitesini

düşürür (Pianta, Hamre & Allen, 2012). Etkili bir OZM yapısı, iletişim yollarını standartlaştırarak bu sorunu azaltabilir.

Tüm bu zorluklar, öğretmenlerin sınıf ortamında sadece otorite kurmalarını değil, aynı zamanda öğrencilerle anlamlı bir ortak anlayış geliştirmelerini gerektirmektedir. Bu noktada, ortak zihinsel modellerin güçlü olduğu sınıflarda bu tür zorlukların daha az yaşandığına dair bulgular literatürde yer almaktadır (Salas, Cooke & Rosen, 2008; Rentsch & Klimoski, 2001).

### 3. UYGULAMALI BİR ÖRNEK: BİLGİSAYAR PROGRAMCILIĞI SINIFINDA ORTAK ZİHİNSEL MODEL KULLANIMI

Bilgisayar Programcılığı önlisans programlarında, sınıf yönetimi sadece düzenin sağlanmasıyla sınırlı kalmayıp, aynı zamanda mesleki becerilerin etkili biçimde kazandırılmasına hizmet eden bir yapı olarak öne çıkar. Bu tür teknik programlarda, öğretmen ile öğrenciler arasında gelişen ortak zihinsel modeller, öğrenme sürecinin niteliğini doğrudan etkilemektedir. Aşağıda, Bilgisayar Programcılığı öğrencilerinin bulunduğu bir sınıf bağlamında, ortak zihinsel model bileşenleri esas alınarak oluşturulmuş örnek bir yapı sunulmaktadır. Bu model; görev ve süreç bilgisi, roller, iletişim normları ve ortak hedefler etrafında şekillenmekte olup, sınıf dinamiklerinin nasıl paylaşılan bir anlayış temelinde organize edilebileceğini göstermeyi amaçlamaktadır.

#### 1. Görev ve Süreç Bilgisi

- Ortak Anlayış: Derslerde teorik bilgi ile birlikte uygulamalı kod yazma sürecinin de yer alması gerektiği kabul edilmektedir.
- Beklenti: Öğrenciler, derslerin sonunda çalışır bir yazılım geliştirebilmelidir. Öğretmen de her hafta kısa uygulamalarla konuları desteklemelidir.
- Uygulama: "Kod yazmadan öğrenme olmaz" ilkesi öğretmen ve öğrenciler arasında paylaşılan bir ilke haline gelmiştir.

#### 2. Rol ve Sorumluluk Modeli

- Öğretmen Rolü: Yönlendirici ve geri bildirim veren bir rehber.
- Öğrenci Rolü: Sadece dinleyen değil, kendi başına ve grupla problem çözmeye çalışan bir öğrenen.
- Sorumluluklar: Öğrenciler derse ön hazırlıkla gelmek, devamsızlık yapmamak ve uygulama saatlerinde aktif olmak zorundadır. Öğretmen ise konuları sadeleştirmeli ve örnekleri sektörel gerçekliklerle ilişkilendirmelidir.

#### 3. İletişim ve Davranışsal Normlar Modeli

- Sınıf İçinde Kabul Gören Davranışlar:
  - Kod tartışmaları ve sorular teşvik edilir.
  - Sessizce dinlemek değil, “doğru anda” müdahale etmek esastır.
  - Derste bilgisayar kullanımı yalnızca derse yönelik olmalıdır.
- İletişim Biçimi: Öğretmen, öğrencileri küçük düşürmeden hataları düzeltir, yönlendirme yapar; öğrenciler ise verilen görevleri yerine getirir ve saygı seviyesini korur.

#### 4. Ortak Hedef ve Motivasyon Modeli

- Ortak Hedef: Mezuniyetten sonra temel yazılım geliştirme becerisine sahip olmak ve staj etkinliklerinde başarılı olabilecek düzeye ulaşmak.
- Motivasyon Kaynağı: Somut çıktılar (örneğin çalışan bir veritabanı uygulaması), gerçek hayatla bağlantı kurma ve öğretmenin sektörden örnekler vermesi.



Bu örnek model, Bilgisayar Programcılığı gibi uygulama temelli bölümlerde, öğretim sürecinin yalnızca bireysel çabalarla değil, öğretmen ve öğrenciler arasında gelişen bilişsel uyumla da desteklenmesi gerektiğini göstermektedir. Özellikle teknik yeterlilik gerektiren derslerde, görevlerin nasıl yapılacağına dair ortak anlayışın oluşması, rol beklentilerinin netleşmesi ve iletişim normlarının paylaşılması, öğrenme ortamının işlevselliğini artırmaktadır. Literatürde de vurgulandığı üzere, ortak zihinsel modellerin varlığı, sınıf içinde belirsizliği azaltmakta, karar alma süreçlerini hızlandırmakta ve öğrenci katılımını artırmaktadır (Mohammed, Ferzandi & Hamilton, 2010; Salas, Cooke & Rosen, 2008). Bu bağlamda, öğretim elemanlarının sınıf yönetimini sadece disiplin boyutuyla değil, aynı zamanda ortak anlam üretimini kolaylaştıracak biçimde yapılandırmaları, mesleki eğitimin kalitesine doğrudan katkı sağlayacaktır.

#### 4. SONUÇ ve ÖNERİLER

Bu çalışma, sınıf yönetiminin yalnızca öğretmenin bireysel yeterliliklerine dayalı bir süreç olmadığını, aynı zamanda öğretmen ve öğrenciler arasında gelişen ortak zihinsel modellerin sınıf içi etkileşimleri derinden etkilediğini ortaya koymuştur. Ortak zihinsel modeller, öğretim sürecinde bilişsel uyum, iletişim verimliliği ve karşılıklı koordinasyon sağlayarak öğrenme ortamının kalitesini artıran temel bir yapı olarak değerlendirilmektedir. Sınıf kurallarının belirlenmesi, rollerin netleştirilmesi, zamanın etkili yönetilmesi ve olumlu sınıf ikliminin inşası gibi yönetsel süreçlerde bu modellerin belirleyici bir rol oynadığı görülmektedir.

Çalışma bulguları, literatürde ortak zihinsel modellerin öğrenme ortamlarında iş birliğini ve etkileşim kalitesini artırdığına dair bulgularla örtüşmektedir (Cannon-Bowers, Salas & Converse, 1993; Mathieu v.d., 2000). Özellikle Rentsch ve Klimoski'nin (2001) ortak şemaların (bireylerin bir duruma, role veya göreve ilişkin benzer bilgi yapıları ve beklentilere sahip olması) sınıf içi beklentileri netleştirmedeki rolüne ve Salas, Cooke ve Rosen'in (2008) çatışma yönetiminde OZM'lerin etkisine dair vurguları, bu çalışmada ortaya konan uygulamalı örneklerle desteklenmektedir. Böylece çalışma, hem kuramsal hem de uygulamaya dönük yönüyle literatürle bir uyum sergilemektedir.

Bu kapsamda aşağıdaki öneriler geliştirilebilir:

- Öğretmen yetiştirme programları, sınıf yönetimi içeriklerine ortak zihinsel model kuramını dâhil etmeli; öğretmen adaylarına bu modellerin nasıl geliştirileceğine dair stratejik beceriler kazandırmalıdır.
- Sınıf içi uygulamalarda, öğrencilerle birlikte kurallar ve süreçler belirlenmeli, beklentiler şeffaf biçimde paylaşılmalı ve ortak karar alma süreçleri teşvik edilmelidir.
- Hizmet içi eğitim programları, öğretmenlerin sınıf içi etkileşimleri yapılandırmasına ve bilişsel uyumu güçlendirmesine destek olacak OZM temelli içeriklerle güncellenmelidir.
- Uygulamalı mesleki eğitimlerde, öğrencilerin yalnızca teknik becerileri değil, sınıf içinde etkili iletişim ve iş birliği süreçlerini de öğrenmeleri sağlanmalıdır.

Sonuç olarak, sınıf yönetimi sosyal, bilişsel ve pedagojik bileşenlerin bütüncül biçimde ele alındığı bir süreçtir. Bu sürecin sağlıklı işlemesi için öğretmen ve öğrenciler arasında ortak anlam yapılarının geliştirilmesi büyük önem taşımaktadır. Ortak zihinsel modellerin sınıf içi işleyişe dâhil edilmesi, hem öğretim sürecinin etkinliğini artıracak hem de öğrenme ortamını daha etkili, katılımcı ve sürdürülebilir hale getirecektir.

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## ENTREPRENEURSHIP AND MULTICULTURALISM: A FUSION OF HORIZONS

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### Abstract

Geert Hofstede conducted a research on different cultures and established a metric which allows the comparison of deferent collective cultures. His research took into account five areas in different dimensions of human culture, which he technically named power distance, uncertainty avoidance, individualism/collectivism, masculinity/femininity, and long or short term orientations. Owing to his findings, it is nowadays demonstrated that cultural values which prevail in a given society largely influence people's business behavior and their organizational culture. This paper will depart from the five cultural dimensions of Hofstede to demonstrate how we can improve existing cultural values to motivate and build a collective entrepreneurial mindedness which can contribute as a drive force for advancing public development policy. The core aim of the work is to conceptualize a platform which appeals to detecting and supplementing collective cultural flaws with entrepreneurial awareness and skills in order to promote a public world view which help to promote a collective entrepreneurial mentality.

**Keywords:** Culture, entrepreneurship, mindset, Development

### INTRODUCTION

Geert Hofstede's research on public culture focuses on five dimensions, namely, power distance (PDI) uncertainty avoidance (UAI), individualism/collectivism (IDV), masculinity/ femininity (MAS), and long or short term orientations (LTO). These five dimensions were quantified using a common statistical metric. The approach allowed a comparative analytical distinction of cultural values which prevail among different countries. My analysis first explores how poor or high scoring of a country or society in some of the five dimensions can be partially interpreted as potential weaknesses in a people's collective culture and then explain possible negative implications such weaknesses may generate to people's business behavior and productive activities. The exploration secondly explores and exposes major economic activities in some selected third world countries (especially Burundi) and explain the positive and negative influence prevailing cultural values can have to such businesses and other productive activities. The analysis thirdly discusses how improving some areas of cultural flaws by public reasoning and education can help improve productivity, efficiency and entrepreneurial mindedness. In the end I will make some recommendations to development policy makers and then draw a conclusion to the paper.

Hofstede defines a culture as "the collective mental programming of the human mind which distinguishes one group of people from another"<sup>1</sup>. Such mental programming in his view influences patterns of thinking which are reflected in the meaning individuals attach to various aspects of their lives, and this cultural mechanism defines the values which become crystallized in the institutions of a society (Hofstede, 2001, 23). Nonetheless, culture as a collective mental programming remains open to allow a progressive integration of other values which can positively influence individuals to develop a collective entrepreneurial mentality which can in turn contribute to the economic development of a people. The mental programming, as explained by Hofstede appeals to the five dimension on human culture aforementioned.

Hence, it is important to first define and elucidate the meaning of each of the five dimensions of public culture. **Power distance** is the extent to which the less powerful member of organization or institution such as the family acknowledges and approves off that power is unequally distributed. The organizational inequality is then defined from below (from the less powerful members to the top), in an organizational scheme which is endorsed by both individuals in positions of leadership and their

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<sup>1</sup> See: [www.geert-hofstede.com/hofstede\\_dimensions.php](http://www.geert-hofstede.com/hofstede_dimensions.php)

followers (Hofstede, 2001, 74-81). **Individualism and collectivism**, as dimensions of a public culture, connote the level to which individuals are integrated into groups. On the one hand, in an individualist society, everyone is expected to look after her/himself, and the social ties among individual members of the society are loose. On the other hand, a collectivist society is characterized by a strong integration of individuals in their social groups such as families (restraint and extended) since the time of birth. The family or any other social group plays a protective and paternalistic role. In return to the protection individuals receive from their social groups, people concerned are expected to keep an unquestioning loyalty to the core social values and normative demands of the group (ibid).

**Masculinity and femininity** as dimensions of public culture connote the distribution of roles between genders. In fact, it is universally verified that women attach more importance to social goals such as providing help to other people, keeping relationships, etc.; and men are more inclined to attach importance to ego goals such as careers and money (Hofstede, 2001, 279). In the same line, a range of cultural values pertains to gender and this differs from one country or society to another. The values which Hofstede's analysis considers are the level of to which individuals are assertive and competitive (the masculine pole), and the level to which they are modest and caring (the feminine pole) (ibid.). Uncertainty avoidance is another dimension of public culture, and is defined as the extent to which individuals in a given society tolerate uncertainty and ambiguity. **Uncertainty avoidance** is also an indication of how cultural values in a given country or society influence people to feel conformable or uncomfortable in non-structured situations. A society with high degree of uncertainty avoidance is usually guided by strong and strict laws and rules, and high level of belief in absolute truth (Hofstede, 2001, 145-74). **Long term and short term orientation** is fifth dimensions that Hofstede considered. Long term orientation connotes the degree to which people are persistent, how they order their relationships and the level of public sense of shame. Short term orientation refers to personal steadiness and stability, respect of tradition, reciprocity of favors and people's protection of their social statuses (ibid.).

According to Hofstede's findings, public cultural values differ among societies. In fact, discrepancies in scores in the five dimensions of public culture among various countries are empirical evidence in support of this contention. For instance, with regards to power distance, Malaysia's score is 104 while Israel is 13. On the dimension of individualism/collectivism, USA's score is 91 and Ghana has 20. For long term or short term orientation, China's score is 118 while Ghana has 16 (Hofstede online)<sup>2</sup>. What is important, however, is not a simple realization of the scores of a country in comparison to other counties. But, the importance of these scores is essentially the normative implications they have as an externalization of an overview of public mindset which influences and defines people's organizational and behavioral preferences in business or productive activities. In different terms, the differences are due to the emphasis people of a given society or country gives to certain cultural values as a public preferred way of proceeding. It is important, however, to note that Hofstede insists that the score of a society is not necessarily a characterization of a cultural set up exemplifying the status of each individual member of the country or society concerned. The model is applied to a general population and gives a general view of a public culture which prevails within a given political society and not a characterization of individually held cultural values.

Nonetheless, given the fact that cultural values which prevail in given society influence people's business behavior and their organizational preferences, it becomes important to analyze the possible implications given scores on certain dimensions of a public culture may have on people's business behavior and on productive activities. For instance, when a country has a high score on the dimension of power distance, this basically implies that people concerned accept and prefer a hierarchal organizational structure and feel comfortable with its accompanying structural inequalities. Yet, while high levels of acceptance of the hierarchical organizational structure may have some managerial advantages especially in the area of decision making and decision implementation, this culture inspired organizational scheme may not be exempt of challenges. For instance, efficiency in productive activities usually requires building a team in which everyone is motivated to work without necessarily being monitored. Yet, people whose cultural values treasure receiving rules from higher authority might feel

<sup>2</sup> <http://geert-hofstede.com/countries.html>.

that the organizational structure which favors less hierarchical and less monitoring approaches is somehow unfit to their organizational and working preferences. The cultural influence may in that case have some negative influence to individuals' motivation and their productive effectiveness.

One among the most important challenges of paternalistic cultural influence to people organizational preferences is to build a collaborative team in which everyone feels personally responsible. To give a concrete example, in Burundian public culture, individual members of a group usually expect that there is a higher authority whose relation to his subalterns is based on royal obedience. In fact, among public cultural values which prevail in Burundian society, groups of people are structurally organized around a leader (traditional), who not only coordinates social activities, but also tells people what to do. This form of organizational structure is common beginning from the family in which the father is seen as the head and main decision maker to small social groups of people. The public organizational preference then reflects this form of organizational scheme which progressively becomes a crystalized value in people's ways of proceeding. Yet, the preferred organizational scheme has a key problem of limiting individuals' creativity and critical thinking within the confines of a team or a group because the organizational scheme transforms order receivers into order executors with a central value of keeping loyalty to the decision maker. Yet, an adequate organizational scheme does not necessarily have to be based on sound structural inequalities and unquestioning obedience. There is a level of distance which is useful in an organizational structure, but such a distance becomes a point of weakness whenever it reduces cohesion and the capacity to build a solid team. Consequently, prevailing cultural values in a given society can incarnate some weaknesses which can partially limit people's capacity to act and to be organized in a way which ensure fruitful results. Yet, by using Hofstede's scheme of five dimensions of public culture, it can be possible to detect and measure prevailing cultural values and then be able to find a way of supplementing the existing weaknesses within a given public cultural set up.

A similar interpretation can be made in various dimensions of public culture. For instance, any society or country with an overall public culture with a low level of uncertainty avoidance may be facing some important and unnoticed challenges connected to dominating public procedural preferences. In fact, the level to which uncertainty is accepted and integrated within a given country or society indicates the level to which individuals concerned lack the reference to truth tracking intuitions in their publicly preferred way of proceeding. The degree to which people are publicly inclined to seek truth can have direct implication to the degree of control and precision seeking for different activities, and the way people maintain and keep track on their personal vision. This is an important element in business activities and behavior. For instance, someone may start a business venture but fails sooner after one has launched his business activities. Yet, when the individual is not inclined to find out what caused the failure of his business (partially due to the influence of his cultural mindset), one may stand a little change to succeed in the future when one makes a second attempt. However, by seeking the truth about the causes of his previous failures, one would sensibly increase the chances of succeeding in the future attempts. Reliable research testifies that, in business, people who keep trying end up succeeding one day. Nonetheless, monitoring the causes of failure in order to avoid them in the next attempt is a fundamental element for increasing the chance of success. Consequently, cultural values which prevail in a given countries or society have partial or direct influence to people's ways of proceeding and this influences at some extent collective and individuals' business behavior and productive activities.

Some concrete examples from prevailing cultural values and business activities in Burundi can clarify the above arguments. Burundi is a society which, similarly to his neighboring Tanzania (already in Hofstede's analysis) is strongly communitarian. People are strongly integrated in the social groups since the time of birth. In terms of public cultural values, Burundians have a low level of uncertainty avoidance. In fact, many people in the society highly value the idea of approximation rather than seeking for precision. This is obviated, for instance, in the low level of public belief in absolute truth. Truth is seen as evolving and under continuous reconstruction. Dominating public cultural values testify that people refer less to truth tracking intuitions, and they are not highly stressed by unstructured situations. In addition, Burundian society is also characterized by a high level of power distance. In fact, people largely accept that power is unequally distributed. Though the country does not yet have objective figures from Hofstede's model, it can be generally notified that, from the restraint family to different

organized groups, there is a high level of acceptance of hierarchical structured and organizational inequalities<sup>3</sup>.

Important is to note some productive activities in Burundi and the influence dominating cultural values can have to public organizational structure and productivity. Burundi along with many other African countries in the sub-Sahara Africa has agriculture as the main productive activity. In parallel to other small business activities, non-mechanized farming allows most of the population to produce what they consume and sell the rest to other low income and local consumers. The country has some international corporations such as Coca-Cola, Heineken, Shell, BP, Total, Toyota, etc. which largely contribute to the economic development of the country. Beside the communitarian character of the Burundian society, productive activities are at a large extent influenced by dominant elements of public culture. For instance, organizational structures are mostly hierarchical, and all the people involved in the organizational scheme find comfort in such an unequal distribution of power. Yet, the power distance dimension in Burundian public culture and its underlying inequality in the distribution of power have important weakening implications to productivity and efficiency. In fact, inequality in the distribution of power which is accepted in public culture becomes a cultural element which legitimizes certain public attitudes to limit and even partially excludes certain categories of people from full and equal participation in productive activities. One among the most outstanding examples is the issue of gender inequalities of men over women in business and other areas of productive activities.

In fact, while public culture tends to legitimize structural inequality as part of a culturally acceptable organizational scheme, this has particularly negative and limiting influence to the productivity of women. Owing to dominating public cultural values in Burundi, women are not considered as endowed with productive capabilities as men. Yet, scientific evidence testifies that women are not only as productive as men, but they can sometimes even do better than men. In addition, gender-based social inequality is a strong handicap to economic productivity because it limits women from accessing some productive opportunities or full participation in the economic development of the country. Gender equality is a crucial element which promotes economic development by allowing each person to have access to opportunities which are available in the society. Yet, when existing culture becomes a barrier to gender equality, it follows that public culture has weak areas which reduce productivity, hence hindering economic development. Consequently, depending on the attitude and the orientation of publicly accepted structural inequalities, the power distance dimension of public culture can incarnate some weakening and limiting elements to economic productivity in a given country or society.

Having demonstrated how prevailing public culture can negatively influence productivity and efficiency in productive activities, we can now analyze how Hofstede's model can be useful for a procedural perspective of supplementing cultural weaknesses in order to promote public entrepreneurial mentality. The five dimensions of public culture in Hofstede's model are used to contextualize public cultural values in countries, and then to make a comparison among different countries. The core aim of the research was initially and is still to determine the model of organization and leadership scheme which would best fit for dominating public culture in a country. The basic argument for Hofstede is that cultural values which dominate in a given public culture influence people's organizational preferences and how they do productive activities (Hofstede, 2001, p.4). Culture, however, is defined in Hofstede's own perspective as "the collective mental programming of the human mind which distinguishes one group of people from another" (ibid.). In the following part, I will show how the five dimensions of culture can also be useful in contextualizing dominant cultural values and their possible weaknesses in a country in order to find ways of supplementing existing flaws in order to promote entrepreneurial mindedness and awareness which can in turn advance development policy in the concerned country or society.

According to Hofstede, culture is not made of static and unchangeable values. But it is a form of mind programming which defines how people as individuals and collectively do activities, interact and what they prefer as an organizational scheme. Culture, however, as a form of mental programming remains open to allow the integration of other values. As already demonstrated, low and high scoring in

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<sup>3</sup> There are many similarities between dominating cultural values in Tanzania and Burundi. This suggests that the indices of Tanzania in the 5 dimensions of public culture can largely reflect the public cultural set up of Burundi.



some dimensions of culture in Hofstede's model can connote the existence of some weaknesses within dominating cultural values which can negatively influence productive and business activities. Yet, the knowledge of those weaknesses through culture scanning helps to find adequate solutions to remedy to the flaws. For instance, if one needs to make a lasting change in a society by orienting a set of development policies, it is very useful to have a scanned overview of how existing cultural values can accommodate or hinders acceptance in the public policies in question. In addition, dominating cultural values influence how people do activities and how they are organized. For instance, people whose public culture favors short term orientation may find a challenge to cope with development projects which are essentially long term oriented. This would sensibly reduce chances of attaining successful implementation because the nature of the development policy would not necessarily march people's preferences, and this would lessen people's motivation to endorse and actively participate in the development project.

While dominant public cultural values can influence either negatively or positively how people handle life problems and how they do and organize productive activities, it is possible to supplement weaknesses of existing cultural values by promoting people's change of mentality via public reasoning and education. By first detecting the score of a given public culture using Hofstede's model, one can detect dominant cultural values in a given country or society. On the basis of the received findings, it is possible to contextualize the weaknesses that existing cultural values have and then choose a way for supplementing those flaws. For instance, suppose that we have a dominant public culture with some challenges in some dimensions as already explained in the case of Burundi. Hofstede's culture scanning model helps to detect where the weakness lies. One of the possible ways out is to find a solutions by resorting to raising public awareness of the limit of holding a certain worldview (in public culture) and them progressively proceed by educating people to change their mentality.

In more concrete terms, if a country or a society has a public culture whose power distance dimension goes to extent of allowing social inequalities based on gender, it is possible to raise awareness of how such world view has negative effects on productivity by unnecessarily limiting and even excluding a part of working force which would contribute the economic development. One of the ways of promoting change of public mentality would be to influence people to think more critically on some habits which have been taken as granted in order to influence a change of the status quo of public culture. In addition, another perspective for promoting change can be the establishment of some public laws which would, for some cases such as gender unbalances, promote women for taking up some forms of business and other productive activities, and by influencing them for some careers. A long term remedial perspective would make change in collective habits which would in turn become publicly intergraded in people's perceptions.

In other words, Hofstede's model of scanning public cultures in the five dimensions can be very useful to development policy making and implementing. In fact, Hofstede's model allows a detection of cultural values which prevail in a given country or society. By knowing prevailing public culture, development policy makers can then design policies which fit the cultural context of the society and this would increase chances of success. Moreover, as has been defended, it is also possible to supplement the flaws in existing public mentality by influencing people to think more critically and progressively adjust and change some of the cultural habits which can bloc positive outcome of development process. The possibility of change in public culture lies in the fact that public culture is a form of mental programming which remains always open to the integration of new cultural values. Though cultural adjustment may take time, cultural values can be oriented towards a more constructive and productive influence.

While development policy makers usually focus on problem people have (e.g. poverty) and possible solutions to the existing challenge, this alternative which focuses on people themselves is more promising. Focusing on people rather than their problems offers a better perspective to development policy making and implementing because poverty as part of human conditions can have some causal ramifications linked with how people are organized, how they think, how they work, etc. In other words, poverty is not sorely external to human conditions. Neither can poverty be reduced to people material deprivations defined in terms of what they have or do not have. But poverty is also linked to people's

deficient inner capabilities<sup>4</sup>. Such capabilities, however, are also part of people's mental programming or their culture. Consequently, people's culture is very important in understating human conditions and in contextualizing development policies and their implementation.

Development policy makers do not usually take into account the cultural context of people they intend to assist. Yet, owing to Hofstede's model, people's culture has a large influence to how they do productive activities and the organizational scheme they prefer. Nevertheless, Hofstede's model aimed at scanning and contextualizing existing public culture of a country in order to detect possible influence the existing cultural values may have to business opportunities and then choose an organizational and leadership scheme which would fit the country. My alternative approach, however, has reoriented Hofstede's model to show how it can equally be useful in the domain development policy making and implementing. While my proposal recognized that high and low scores in some dimensions of public culture are signs of weaknesses in existing cultural values, it is at the same time demonstrated that existing weaknesses can be supplemented in order to develop a better entrepreneurial mindedness which can increase the chance for success in development policy making and implementing. Knowing where one want to go and the means one has to reach his destination are two elements which always go hand in hand. Similarly, knowing dominating public culture and its influence to people's preferences is not only crucial for entrepreneurial purposes, but it is also important for designing and setting development goals. As usually reiterated, teaching people how to fish is better than providing them with fish when they are hungry. In the same line, instead of designing development policies which focuses on problems (areas of poverty), policies which focuses on people themselves and their inner capabilities are more adapted to enabling individuals to deal with their problems. In this regard, proper understanding of people's public culture is very important. Consequently, Hofstede's research findings on public culture can serve in various domains including development policy making and implementing.

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<sup>4</sup> Amartya Sen, "Rights and Capabilities" in *Resources, Values and Development*, Cambridge Ma: Cambridge University Press, 1984. Pp: 307-324.

## TRADE EFFECTS OF CEFTA AGREEMENT ON AGRICULTURAL SECTOR IN ALBANIA EVIDENCES WITH CEFTA MEMBERS

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### Abstract

Since the beginning of the transition period, trade policy reforms have represented an important aspect of the economic policy framework in Albania, given the role of the foreign trade sector in the overall economic development of the country. Considering the fact that Albania has a significant share of its trade exchanges precisely with the Western Balkans region, specifically the CEFTA countries, the analysis focuses on the CEFTA agreement due to the importance that regional integration represents for a country like Albania. The agricultural sector remains of particular importance for Albania with its contribution to the country's GDP and employment in this sector, despite the fact that the contribution of this branch of the economy in both directions, has been declining from 1992-2022.

Using the Gravity model, this study aims to analyze the trade of the agricultural sector with the CEFTA participating countries, specifically the empirical verification of trade creation or trade diversion effect of this agreement. The results of the models show that for this important sector, using also some dummy variables, distance is an important factor in Albania's foreign trade and our country has the highest exchanges with countries that shares a common border. The lack of significance of the dummy trade creation variable means that for Albania the CEFTA agreement has not created trade opportunities beyond those considered normal for the agricultural sector. The impact of population (as an expression of the economic size of a country) is consistent with what the literature claims, specifically a 1% increase in population increases the total volume of agricultural products by 0.36% with the CEFTA members.

**Keywords:** CEFTA Agreement, Agricultural Sector, Gravity Model, Albania.

### 1. INTRODUCTION

Regional Trade Agreements have been extended, moving from agreements that initially focused on hard trade restrictions, such as tariffs and quotas on products and agriculture, to softer restrictions, such as environmental or health standards. Issues such as investment and capital movements that do not strictly remain within a trade policy have also been added. The most typical example in this regard is the change of the European Union, where the subsequent name (from the Common Market to the European Community and finally the European Union) describes its evolution from a customs union to a single market (with free movement of capital, labor, services and substantial regulatory harmonization) and finally, to an economic union with a single currency<sup>5</sup>. According to the World Trade Organization (1995), the creation of an FTA has knock-on effects for other countries not yet involved in a regional agreement. Specifically, the WTO suggests that these countries either seek to join an existing group, or create a new group, or seek multilateral liberalization.

In the context of trade liberalization, various countries have engaged in a process of regional integration. This refers to the SEE countries, which, in addition to orienting this integration towards the EU countries, are cooperating by creating free trade agreements between them. Kovač, 1998; Uvalić, 2001, have supported the creation of a free trade area between the Successor States of the former Yugoslavia. They argued that their poor export performance towards the EU could be compensated by an increase in exports between them.

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<sup>5</sup> Fernandez and Portes (1998), pages 197-198.

Central European Free Trade Agreement (CEFTA), is a free trade agreement signed in December 2006 by Albania, Bosnia and Herzegovina, Bulgaria, Croatia, North Macedonia, Moldova, Montenegro, Romania, Serbia and UNMIK/Kosovo. Romania, Bulgaria and Croatia have withdrawn from CEFTA on their accession to the EU.

This agreement aims at enhancing trade in goods and services, seeks to eliminate trade barriers between the Parties and attract investment to the region through fair, stable and predictable trade rules. The Agreement aims to harmonize its Parties' regulatory framework with the EU and international standards<sup>6</sup>.

Taking into account the above, and the importance of regional integration for an economy like Albania, this study is based on the agricultural sector, more specifically, the quantitative and empirical analysis of Albania's agricultural trade flows with CEFTA participating countries, for the period 2001-2022.

The reason for choosing the CEFTA agreement, over those with the EU, is that the integration effects with the EU region have been the subject of study by other authors who have focused on the Central and Eastern European region, where Albania is also a part.

In this study, the Gravity Model will be used to test two important effects that accompany the signing of an FTA: trade creation and trade diversion. These effects will be analyzed only for the agricultural sector and for CEFTA members. Economic growth is a function of many variables, but, based on the empirical literature, it is identified in most studies with gross domestic product or its various derivatives, such as: GDP growth in %, GDP per capita. Therefore, in this study we will rely on these indicators as measures of economic growth in Albania. Table 1 presents gross value added by type of economic activity, in % of GDP, while figure 1 gives the distribution of gross domestic product (GDP) across economic sectors from 2013 to 2023.

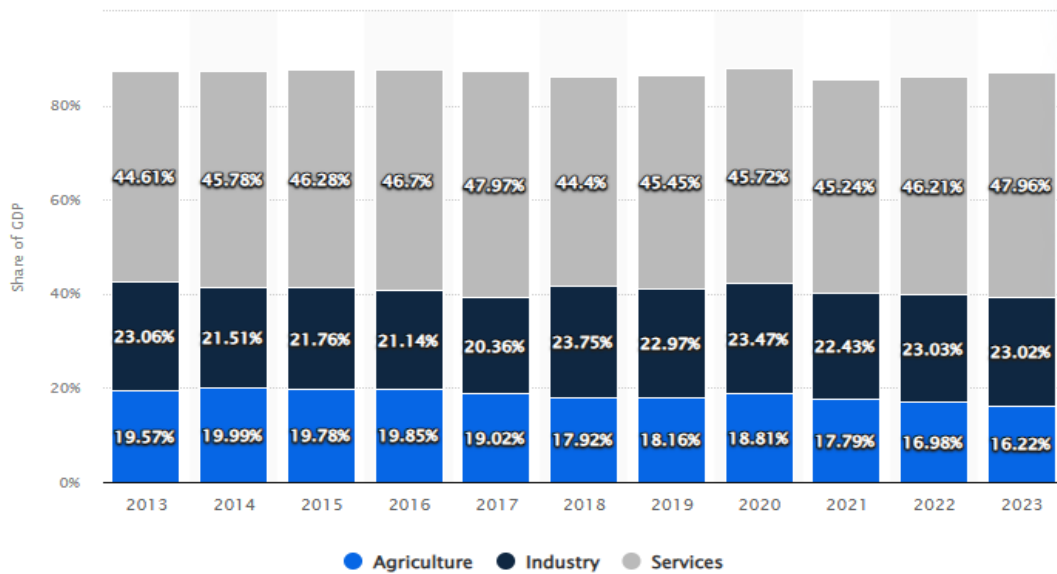
**Table 1:** Gross value added by kind of economic activity, percentage distribution, current prices

	1991	1995	2005	2010	2015	2020	2021	2022
<b>Agriculture</b>	39.29	54.3	21.5	20.7	22.5	21.9	21.1	21.3
<b>Industry</b>	42.69	26.5	28.7	28.7	24.8	22.9	23.9	24.5
<b>Services</b>	18.02	19.2	49.8	50.7	52.7	55.1	55.0	54.2
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

*Source: Department of Economic and Social Affairs Statistics Division, Statistical Yearbook 2024*

<sup>6</sup> <https://cefta.int/about/>





**Figure 1:** Albania: Distribution of gross domestic product (GDP) across economic sectors from 2013 to 2023

Source: World Bank

As noted at the beginning of the transition period, industry counts for the largest share of GDP compared to the other two branches of the economy, as a result of the inherited structure of the Albanian economy before the 1990s. Since 1995, the service sector seems to have replaced the agriculture sector in terms of its share in the country's GDP, accompanied by the contraction of the industrial sector and the provision of resources previously inefficiently engaged in industry for the expansion of other sectors. In 2023, the first place is occupied by the service sector, where its contribution to GDP reaches almost 49%. While in 2022, agriculture represented 21.3 per cent of Albania's GDP. As shown in Table 2 it remains a pivotal sector of the country's economy and engages 34.9 per cent of its active workforce.

As of January 2023, the population of Albania was 2,761,785 inhabitants, the share of rural population was estimated at 36 per cent in 2022, compared to the 2021 EU average of 20.8 per cent<sup>7</sup>.

**Table 2:** Employment by economic activity

	2005	2010	2015	2022
<b>Agriculture</b>	47.0	42.1	41.3	34.9
<b>Industry</b>	15.1	20.6	18.7	21.4
<b>Services</b>	37.9	37.3	40.0	43.7
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

Source: Department of Economic and Social Affairs Statistics Division, Statistical Yearbook 2024

Table 3 provides the dynamics of trade in agricultural products with CEFTA countries. This category includes the product group with code 01-24 as well as those belonging to codes 29, 31, 41, 42, 43 and 51 according to the UN Comtrade Harmonized System 2-digit classification, HS -2 digits.

**Table 3:** Dynamics of agricultural sector trade with CEFTA countries<sup>8</sup>

<sup>7</sup> Eurostat [online]. Urban-rural Europe - demographic developments in rural regions and Areas. Population structure. see: [https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Urban\\_rural\\_Europe\\_-\\_demographic\\_developments\\_in\\_rural\\_regions\\_and\\_areas#Population\\_structure](https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Urban_rural_Europe_-_demographic_developments_in_rural_regions_and_areas#Population_structure)

<sup>8</sup> The data does not include the country of Kosovo, for which the data source used in this study does not provide a categorization of trade by product.

Years	Exports (000 USD)	Imports (000 USD)	Trade Volume (000 USD)
2001	3,441	10,373	13,814
2002	3,691	13,444	17,135
2003	3,829	10,787	14,616
2004	11,109	24,287	35,396
2005	11,359	23,139	34,498
2006	15,468	27,185	42,653
2007	19,011	52,939	71,950
2008	11,616	69,778	81,394
2009	5,612	62,116	67,728
2010	13,160	118,665	131,825
2011	20,975	118,830	139,805
2012	24,846	109,580	134,426
2013	28,427	105,994	134,421
2014	24,941	83,069	108,010
2015	34,564	89,823	124,387
2016	50,954	92,525	143,479
2017	52,198	83,567	135,765
2018	52,218	85,768	137,986
2019	67,647	80,593	148,240
2020	81,979	82,695	164,674
2021	87,454	109,175	196,629
2022	36,261	3,474	39,735

*Source: Author's calculations based on Trade Map data*

Based on Table 3, it can be said that, like Albania's total trade with CEFTA countries, trade in this sensitive sector has increased significantly after 2006. This applies mainly to Albania's imports from CEFTA member countries, where in 2007 the value almost doubled. The upward trend is clearer for imports as Albania's exports to these countries have been volatile. Imports in 2014 experienced a decrease of 21.62% compared to the previous year. One reason for this is that Croatia left CEFTA and became part of the EU in 2013, as the corresponding value of agricultural exports from Croatia also decreased significantly in 2014. The period 2017-2021 marks an increase in trade volume with CEFTA countries.

## 2. MATERIAL AND METHOD

Classical authors and at the same time supporters of theories on international trade, have not left out of their attention the study of the effects that Regional Agreements may have had on the trade flows of the participating countries or even on their welfare. Thus Anne O. Krueger (1999) studied the change in the patterns of trade flows between the countries of the North American Free Trade Agreement (NAFTA) and concluded that trade relations between members had intensified significantly after the 1990s. Preliminary results (because the author emphasizes that a re-examination of the effects of NAFTA should be done after several more years have passed since its signing) show that the expansion of trade resulted in a non-significant "creation" of trade rather than its "diversion". Meanwhile, Romalis (2001),

as well as Fukao and Okubo (2002), through econometric analyses, found that it was highly likely that NAFTA had resulted in trade "diversion/avoidance" rather than trade creation<sup>9</sup>.

In this study we are interested in analyzing the above effects on agricultural trade with CEFTA countries. This will be achieved through the use of gravity models for agricultural trade in total, imports as well as exports. Over the last decades, the "Gravity Equation" has emerged as the basic model of empirical work in international trade to study the ex-post effects of FTAs and Customs Unions on bilateral trade flows. Thus, the importance of recognizing the trends and characteristics of agricultural trade in the CEFTA framework, together with the effects of Albania's regional integration focusing on the free trade agreement among Central European countries where Albania, as mentioned, has been a party since 2007, dictates the following hypotheses.

**Hypothesis 1:** The GDP of the CEFTA countries, Albania's distance from them, the EU membership of the partner country, CEFTA membership, factors such as RFE, SIM, sharing a common border with CEFTA countries, as well as a number of dummy variables are expected to have significant effects on Albania's foreign trade in agricultural products.

**Hypothesis 2:** The net benefit from CEFTA and trade integration in general will be higher, the smaller the distance between Albania and the partner country, the larger and more similar the countries are in terms of economic size/similarity (GDP, SIM).

**Hypothesis 3:** Albania's membership in CEFTA is important for boosting trade exchanges, but is unlikely to result in trade creation for agricultural products for CEFTA countries.

Two important questions are answered by applying this model. Firstly, does the overall trade of individual member countries increase with participation in an FTA? Secondly, are trade flows biased toward the FTA member countries? Bhagwati (1971) has shown that the lack of increased trade flows for countries participating in the trade bloc is a strong indicator that the welfare of the member countries will decline; thus, the trade bloc results in trade diversion rather than trade creation in this case<sup>10</sup>.

The Gravity Model used in this study has the following form:

$$\ln \text{TotTrade}_{ijt} = \beta_0 + \beta_1 \ln \text{GDP}_{ijt} + \beta_2 \ln \text{DIST}_{ij} + \beta_3 \text{RFE}_{ijt} + \beta_4 \text{SIM}_{ijt} + \beta_5 \text{CEFTA}_{ijt} + \beta_6 \text{Trade Creation}_{ijt} + \beta_7 \text{Trade Diversion}_{ijt} + \beta_8 \text{DEU}_{ijt} + \beta_9 \text{Border}_{ij} + u_{ijt} \quad (2.1)$$

Where TotTrade represents Albania's total trade with the countries of analysis (but exports and imports are also used); GDP<sub>ijt</sub> is the Gross Domestic Product of Albania and the partner countries at time t; DIST<sub>ij</sub> represents the distance between the capitals of countries i and j; RFE<sub>ijt</sub> and SIM<sup>11</sup><sub>ijt</sub> represent the difference in relative factor endowment and similarity in economic size between the countries.

To analyze the two effects of CEFTA, we add two dummy variables to the above equation. The first one is labeled Trade Creation which takes the value 1 when both countries are members of CEFTA and the second one is labeled Trade Diversion for observations where only one of the countries is a member of CEFTA in year t. The first variable will capture the creative effect of trade if it is positive and statistically significant, as its name suggests, while the second one will capture the diversion effect if it is negative.

CEFTA is a dummy variable that takes the value 1 from 2007 onwards for trade flows between Albania and Macedonia, Serbia and Montenegro, Bosnia and Herzegovina, Moldova, Croatia, and 0 otherwise.

DEU- dummy variable that takes the value 1 if one of the countries of the analysis is a member of the European Union at time t and 0 otherwise. This variable serves to measure the incentive effect of

<sup>9</sup> Romalis (2001) found that NAFTA had a significant positive effect on the share of U.S. imports in Canada and Mexico, especially in industries with the highest tariff reductions. Since NAFTA did not result in an increase in overall imports, the increase in imports from Canada and Mexico came at the expense of the rest of the world.

<sup>10</sup> Bhagwati, Jagdish N. (1971). Trade Diverting Customs Unions and Welfare Improvement: A Clarification. *The Economic Journal*, Vol. 81, 580-587.

<sup>11</sup> Further explanations about Sim and RFE variables are available by the authors upon request.

Albania's trade with EU member countries. In a way, it also represents the effect of unilateral trade preferences granted by the EU to Albania, as a country that has signed the SAA.

Border is a dummy variable that takes the value 1 for countries with which Albania shares a common border and 0 otherwise.

The data for the Gravity models belong to the period 2001-2022 and as mentioned above include trade flows of agricultural products between Albania and North Macedonia, Serbia, Montenegro, Bosnia & Herzegovina, Moldova and Croatia. The truth is that Croatia, since 2013, is no longer part of CEFTA because it has joined the EU, but we have included it in the study for two main reasons. First, because it has been part of CEFTA for a significant part of the period that this study covers, 2001-2013. And second, because the trade flows of these products with Albania are of such a level that cannot be left out of the study, if compared, for example, with Moldova or Montenegro.

## 2.1. Gravity Model for Agricultural Trade with CEFTA members

This issue is based on the analysis of the effect of CEFTA agreement only on Albania's agricultural trade flows with the participating countries. From the preliminary analysis of data for this sector, it resulted that trade exchanges with these countries had increased. This increase is mostly attributed to imports.

### 2.1.1. Total Agricultural Trade Volume Between CEFTA Members

We begin the reasoning by constructing the Gravity model for the total trade volume of agricultural products. The model for agricultural trade with CEFTA countries results in:

**Table 4:** Modeling the trade volume of agricultural products, CEFTA countries

	<i>Coefficient</i>	<i>Standard Error</i>	<i>t-Statistic</i>	<i>p-Value</i>	
Constant	5.63205	0.435811	8.4653	<0.00001	***
Border	3.78509	0.378109	9.7975	<0.00001	***
CEFTA	0.673942	0.256915	5.2614	0.00005	***
DEU	0.48236	0.197510	1.9882	0.06107	*
LnGDP	1.16139	0.179537	8.7226	<0.00001	***
LnPop	0.460726	0.0874423	4.7246	0.00053	***

R <sup>2</sup>	0.859941	Adjusted R <sup>2</sup>	0.810453
F(5, 73)	63.45173		9.87e-23

The equation based on the results generated by the model has the following form:

$$\ln \text{TotTradePrBijt} = 5.63 + 1.16 * \ln \text{GDPijt} + 0.46 \ln * \text{Pop} + 3.78 * \text{Borderijt} + 0.67 * \text{CEFTAiijt} + 0.48 * \text{DEUiijt} \quad (2.2)$$

It is noted that some variables are not important in the modeling of agricultural products with CEFTA countries. Distance as a measure of transportation costs does not result as an important variable. In fact, Albania has the highest trade exchanges of these products with countries such as: Serbia and Montenegro, or even Macedonia, which are also countries with which Albania shares the same border; therefore, the effects of distance are captured by the dummy border variable, which based on the value of the coefficient assumes that sharing the same border increases the trade volume of agricultural products in Albania.

According to the model, if GDP increases by 1%, trade volume is expected to increase by 1.16%, *ceteris paribus*.

Related to the population variable, the coefficient is positive and statistically significant. This means that a 1% increase in population increases Albania's total trade with the countries of the analysis by 0.46%. Being a member of CEFTA of a country has positive effects on the trade volume of agricultural products. The positive coefficient next to BORDER indicates that trade volume is higher with countries

with which it shares a common border than with countries with which it does not have a common border.

The DEU variable has a positive sign, which verifies the importance of the intensification of Albania's trade with the countries of the European Union, during 2001-2022. The Sim and RFE variables have resulted insignificant.

### 2.1.2. Agricultural imports between CEFTA members

The situation in the case of imports appears similar to the trade volume in the sense that the variables involved, their importance and impact are the same. This is expected as long as imports dominate the trade volume. Thus, the border variable has a significant impact on the increase in imports of agricultural products with CEFTA countries, which confirms that Albania trades more with border countries. The CEFTA variable is also significant at the 99% confidence interval and implies that the free trade agreement between Albania and other participating countries after 2007 has intensified Albanian imports in this sector.

**Table 5:** Modeling The Import of Agricultural Products, CEFTA Countries

	<i>Coefficient</i>	<i>Standard Error</i>	<i>t-Statistic</i>	<i>p-Value</i>	
Constant	4.61217	0.475793	6.3704	<0.00001	***
Border	2.53661	0.243016	8.1479	<0.00001	***
CEFTA	0.844731	0.431520	4.1637	0.00208	***
DEU	0.59790	0.236287	3.1056	0.03121	**
LnGDP	1.22162	0.195494	7.5513	<0.00001	***
LnPop	0.309399	0.134945	2.2928	0.02516	**

R <sup>2</sup>	0.715329	Adjusted R <sup>2</sup>	0.687126
F(5, 73)	43.44535	F Prob	2.37e-13

### 2.1.3. Agricultural Exports Between CEFTA Members

Finally, table 6 presents the results of the model for agricultural exports.

**Table 6:** Modeling the export of agricultural products, CEFTA countries

	<i>Coefficient</i>	<i>Standard Error</i>	<i>t-Statistic</i>	<i>p-Value</i>	
Constant	<b>-0.952375</b>	0.0851	-0.8309	0.51248	
Border	5.21183	0.612819	6.5611	<0.00001	***
CEFTA	0.624668	0.265724	2.3508	0.02241	**
LnGDP	1.88230	0.212465	5.2303	0.00001	***
LnPop	0.792137	0.341542	6.2330	<0.00001	***

R <sup>2</sup>	0.860746	Adjusted R <sup>2</sup>	0.834687
F(4, 63)	63.73220	F Prob	1.22e-15

The variables included describe about 86% of the variation in exports. Even higher is the impact of the dummy border variable compared to the above models. Meanwhile, it is noted that the coefficient before the population variable is higher and more specifically: a 1% increase in it leads to a 0.79% increase in Albania's agricultural exports to CEFTA countries.

## 3. CONCLUSION

The agricultural sector remains of particular importance for Albania with its contribution to the country's GDP and employment in this sector, despite the fact that the contribution of this branch of the economy in both directions has decreased from 1992-2022. For example, in 2005, about 47% of the population

was employed in this sector, while in 2022 it is estimated that about 34.9% of the active population is employed in this sector. In this sector, as well as for total foreign trade, Albania is a net importer, with imports exceeding the value of exports almost twice. Based on the importance that regional integration agreements represent, in particular for small transition countries, in terms of welfare, consumption, production and trade flows, this case study emphasizes the Central European Free Trade Agreement, CEFTA, and studies its possible creative and deviant effects for Albania.

On the other hand, the hypotheses raised in this study aimed to empirically test the fact that Albania's membership in CEFTA is important for promoting trade exchanges, but is likely not to result in trade creation for agricultural products, for the CEFTA participating countries.

The results of the models show that the two most interesting variables, trade creation and trade diversion, have resulted insignificant, so there is no trade creation effect nor trade diversion for Albania after its membership in CEFTA, for the category of agricultural products and therefore they were not part of the equations. This means that Albania's trade flows with CEFTA countries have not had a significant increase beyond the level of trade that is considered normal and that existed before the signing of this FTA.

The coefficient of CEFTA variable, which takes the value 1 in 2007 and onwards, has a positive sign and indicates that, if all other variables remain unchanged, Albania's total trade with other CEFTA countries is greater compared to non-CEFTA countries.

The distance variable, considered an important barrier to trade, has a negative effect on bilateral trade flows, but it turned out to be insignificant. In fact, Albania has the highest trade exchanges of these products with countries such as Serbia and Montenegro, or even Macedonia, which are also countries with which Albania shares the same border; therefore, the effects of distance are captured by the dummy border variable, which based on the value of the coefficient assumes that sharing the same border increases the trade volume of agricultural products in Albania.

The net effect of CEFTA membership did not result in trade creation for Albania. This result can be explained if we consider the characteristics of the countries in the region, the small differences between the comparative advantages possessed by them, the fact that our country possesses comparative advantages in primary products or traditional production inputs, as well as the fact that most of the countries in the region remain small countries and developing or transition economies.

The DEU variable resulted with a positive sign, which verifies the importance of intensification of Albania's trade with the countries of the European Union, mainly for imports from this region.

The results also highlight Albania's low potential to benefit from trade with partner countries in this sector. Given that Albania's main destination for imports and exports remains the EU, its trade deficit or low export/import ratio indicates its unequal trade and economic position in front of developed countries. This leads to an important conclusion: the country's competitiveness in international commodity markets remains low and its export basket offers little to developed countries.

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## YAPAY ZEKA DESTEKLİ BİR MODELLE ENFLASYONUN BANKACILIK ŞUBELERİNDEKİ İŞ YÜKÜ VE İNSAN KAYNAĞI İHTİYACINA ETKİSİNİN ANALİZİ

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### Özet

Bu tez çalışmasında, dijital bankacılığın gelişimiyle birlikte banka şubelerinde gerçekleşen işlem hacmindeki değişimlerin, makroekonomik bir değişken olan enflasyon oranlarıyla birlikte değerlendirilerek, iş gücü ihtiyacı üzerindeki etkisi analiz edilmiştir. Çalışmanın temel amacı, enflasyonun artış veya azalış eğilimlerinin banka şubelerindeki işlem sayısı ve işlem süresi gibi operasyonel göstergelere olan etkisini yapay zekâ temelli bir model aracılığıyla ortaya koymak ve bu veriler ışığında şube bazlı insan kaynakları planlamasına yönelik öngörüler geliştirmektir.

Tez kapsamında, Türkiye'de faaliyet gösteren bazı banka şubelerine ait yıllık işlem sayısı, işlem süresi ve enflasyon oranı verileri toplanmış ve bu veriler yapay zekâ tabanlı bir tahmin modeli ile analiz edilmiştir. Çalışmada kullanılan model, enflasyon oranındaki değişimlerin şube operasyonlarına olan etkisini tahmin etmekte ve buna bağlı olarak FTE (Full-Time Equivalent) ve HC (Headcount) gibi iş gücü göstergelerini hesaplamaktadır.

Elde edilen sonuçlar, dijitalleşmenin şube işlemlerinde azalmaya yol açarken, makroekonomik dalgalanmaların hâlâ önemli bir etken olduğunu göstermektedir. Bu bağlamda, bankaların insan kaynakları planlamasında yalnızca dijitalleşme eğilimlerini değil, aynı zamanda ekonomik göstergeleri de dikkate alarak veri temelli stratejiler geliştirmeleri gerektiği vurgulanmaktadır. Çalışma, yapay zekâ destekli analizlerin bankacılık sektörü için stratejik karar alma süreçlerinde nasıl kullanılabileceğine dair uygulamalı bir örnek sunmaktadır.

**Anahtar Kelimeler:** Dijital bankacılık, yapay zeka, insan kaynakları planlaması, işlem hacmi

### ANALYSIS OF THE IMPACT OF INFLATION ON WORKLOAD AND HUMAN RESOURCE REQUIREMENTS IN BANKING BRANCHES USING AN AI-SUPPORTED

#### Abstract

This thesis analyzes the impact of inflation—a key macroeconomic variable—on transaction volume and labor demand in bank branches, particularly in the context of the rapid evolution of digital banking. The main objective of the study is to examine how rising or falling inflation trends affect operational indicators such as transaction count and transaction duration, and to estimate the resulting human resource requirements using an artificial intelligence-based model.

Within the scope of the study, annual data on transaction volume, transaction duration, and inflation rates from select bank branches operating in Turkey were collected and analyzed through a predictive AI model. The model evaluates the relationship between inflation and branch-level operations, and estimates workforce metrics such as Full-Time Equivalent (FTE) and Headcount (HC).

The results reveal that while digitalization leads to a reduction in branch transactions, macroeconomic fluctuations continue to play a significant role. This underscores the need for banks to incorporate not only digitalization trends but also economic indicators into their human resource planning strategies.



The study offers a practical example of how AI-supported analysis can be integrated into strategic decision-making processes in the banking sector.

**Keywords:** Digital banking, artificial intelligence, workforce planning, transaction volume

## 1. GİRİŞ

Dijitalleşmenin etkisiyle banka müşterilerinin işlem alışkanlıkları büyük ölçüde değişmiş, şube içi operasyonel yoğunluk yeniden şekillenmiştir. Ancak bu değişim yalnızca teknolojik gelişmelerle sınırlı değildir. Enflasyon gibi makroekonomik değişkenler de bireylerin finansal davranışlarını etkileyerek şube işlem hacmini ve sürelerini doğrudan etkilemektedir. Geleneksel iş gücü planlaması yöntemleri bu tür değişkenliklere duyarlı kalabilir. Bu nedenle esnek, ekonomik verilere dayalı ve otomatik hesaplama yeteneğine sahip modellere ihtiyaç duyulmaktadır.

Bu çalışmanın amacı, şubelerdeki işlem adedi ve süresinin enflasyon etkisiyle nasıl değiştiğini analiz eden, ve bu değişiklikler doğrultusunda insan kaynağı (FTE ve HC) ihtiyacını hesaplayan bir yapay zeka destekli modelin geliştirilmesidir.

## 2. ÇALIŞMANIN YÖNTEMİ

Bu çalışmada, bankacılık şubelerindeki insan kaynağı ihtiyacının enflasyonun işlem adetleri ve işlem süreleri üzerindeki etkisi göz önünde bulundurularak dinamik bir model geliştirilmiştir. Model, şube bazlı işlem verileri, işlem süreleri ve enflasyonun bu değerlere olan tahmini etkileri temel alınarak Python programlama diliyle oluşturulmuştur.

Kullanıcıdan alınan enflasyon durumu, yıllık iş günü sayısı ve günlük çalışma süresi gibi girdiler doğrultusunda, farklı veri tablolarında yer alan işlem hacmi ve işlem süresi bilgileri birleştirilmiştir. Model, enflasyonun etkisini işleme bağlı yüzdesel değişimler olarak hesaplayarak, işlem adetleri ve sürelerini güncellemiştir. Güncellenen bu veriler ışığında, her şube için toplam iş yükü saat cinsinden hesaplanmış ve yıllık çalışma süresi ile ilişkilendirilerek gerekli iş gücü (FTE ve HC) ihtiyacı belirlenmiştir.

Model, parametrelerin kolayca değiştirilebilmesini sağlayan esnek yapısıyla farklı ekonomik senaryolara uyarlanabilirlik göstermekte, böylece şube bazlı insan kaynakları planlamasında etkin ve dinamik bir araç olarak kullanılabilir.

## 3. SONUÇ

Model sayesinde bankacılık şubelerinde, enflasyon kaynaklı işlem değişimlerinin iş yüküne ve insan kaynağına olan etkisi ölçülebilir hale gelmiştir. Dinamik senaryo analizi özelliği ile farklı enflasyon oranlarında insan kaynağı ihtiyacı hesaplanabilmekte, böylece banka yöneticileri kaynak planlamasını daha etkin biçimde yapabilmektedir.

Modelin esnek yapısı, farklı şube verileri ve ekonomik senaryolarla tekrar çalıştırılabilir olması sayesinde stratejik planlamada önemli bir destek aracı haline gelmiştir. Gerçek veri entegrasyonu ile uygulandığında, insan kaynağının doğru ve verimli tahsisi mümkün olabilecektir.

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