THE IMPACT OF ARTIFICIAL INTELLIGENCE APPLICATIONS ON EMPLOYMENT IN HEALTHCARE SERVICES

Asst. Prof. Dr. Aslı KAYA
Istanbul Gelişim University, Faculty of Health Sciences, Health Management, Istanbul, Türkiye, aslkaya@gelisim.edu.tr, ORCID ID: 0000-0001-6818-3868

Lec. Dr. Cemile ŞEKER
Near East University, Faculty of Tourism, Tourism Research Center, Nicosia, TRNC, cemile.seker@neu.edu.tr, ORCID ID: 0000- 0002-9150-6845

ABSTRACT

The study investigates the influence of artificial intelligence applications on health care employment. Using the method of literature review, this paper has identified that in what way the use of artificial intelligence is transforming business processes, with its positive and negative consequences on workforce composition, automation of professions, and need for reskilling. This research will present an analysis of the impact of digital transformation on healthcare by estimating the changes it can cause to the demand for and experience of workers. This paper undertakes an analysis of how AI shapes the structure of employment and its theoretical-practical literature review. In this context, the present study contains a review of literature indexed to international academic platforms such as Scopus, WoS, PubMed, Emerald Insight, Google Scholar, and ProQuest. The finding may explain effective policies that policymakers and the business world in healthcare will be implementing or adhering to.

Keywords: Artificial Intelligence, Healthcare Services, Employment, Digital Transformation, Automation, Workforce Transformation.

Jel Codes: I10, I15, J24

THE EFFECT OF TECHNOLOGY ANXIETY ON ARTIFICIAL INTELLIGENCE LITERACY

Assist. Prof. , Can Burak NALBANTOĞLU
İstanbul Gelişim University, Faculty of Economics, Administrative and Social Sciences, Logistics Management, İstanbul, Türkiye
ORCID: 0000-0002-0903-4085, cbnalbantoglu@gelisim.edu.tr

Assist. Prof. , Ali Korhan ÖZEN
İstanbul Gelişim University, Faculty of Economics, Administrative and Social Sciences, Logistics Management, İstanbul, Türkiye
ORCID: 0000-0002-4995-6914, akozen@gelisim.edu.tr

Assist. Prof. , Arzu Sert ÖZEN
İstanbul Gelisim University, Faculty of Economics, Administrative and Social Sciences, Business Administration (English), İstanbul, Türkiye
ORCID: 0000-0002-5743-4075, arsert@gelisim.edu.tr

ABSTRACT

Technology anxiety, often referred to as digitization anxiety or tech anxiety, is defined as an emotional response characterized by feelings of discomfort, tension, or fear associated with the use or thought of using technology. This anxiety can manifest due to various factors, including the rapid pace of technological advancements and the pressure to adapt to new tools and systems in both personal and professional contexts. AI Literacy refers to the competencies we will all need as a foundation in a world that is enhanced with AI technologies This study aims to examine the impact of technology anxiety on artificial intelligence (AI) literacy. Conducted with 218 employees working in the service sector in Istanbul, the research investigates the relationship between participants' anxiety toward technology and their AI literacy levels. Data were collected through an online survey with voluntary participants and analyzed using the Partial Least Squares Structural Equation Modeling (PLS-SEM) method.

Technology anxiety was measured using the scale developed by Wilson et al. (2022), while AI literacy was assessed through the scale developed by Wang et al. (2023) and adapted into Turkish by Polatgil and Güler (2023). The findings indicate a significant negative relationship between technology anxiety and AI literacy ($\beta = -0.619$, $p < 0.001$), suggesting that individuals with higher levels of technology anxiety tend to have lower AI literacy levels.

This study provides valuable insights into how technology anxiety affects individuals' adaptation to digitalization processes. The results highlight the need for strategies to enhance individuals' technological competencies and emphasize the importance of structuring AI-related training programs in ways that reduce anxiety.

Keywords: Technology Anxiety, Artificial Intelligence Literacy, Digital Literacy, Technology Fear, Digital Transformation

Jel Codes: M10, M15, O33, C39

PRISONERS' RIGHT TO CHOOSE IN LIGHT OF EUROPEAN COURT OF HUMAN RIGHTS JUDGMENTS: LEGAL FRAMEWORK AND PRACTICES

Cihat BALASAR
Dicle University, Institute of Social Sciences, Department of Public Law,
av.cihatbalasar@gmail.com

Assoc. Prof. Dr. Hüseyin Murat IŞIK
Dicle University, Faculty of Law, Department of Constitutional Law, ORCID: 0000-0001-7317-3031, isikhm@dicle.edu.tr

ABSTRACT

The right to vote is the fundamental political right of citizens and one of the most important civic duties. This right has an important function in terms of the functioning of democracy and the manifestation of the national will. According to the principle of universal suffrage, all citizens should have the right to vote without discrimination. For this reason, this right should not be restricted unless it is mandatory in terms of social order, and legal arrangements should be made in this regard without violating fundamental rights and freedoms.

The European Convention on Human Rights (ECHR) was adopted by the Council of Europe in 1950 and provides an international framework for the protection of fundamental rights and freedoms. In line with the understanding of fundamental human rights, this convention also includes the right of individuals in prison to be treated in a manner befitting human dignity and to have legal guarantees. Article 3 of Additional Protocol No. 1 to the ECHR emphasizes the principle of universal suffrage by regulating the right to free elections.

In Hirst v. the United Kingdom (No. 2), the European Court of Human Rights (ECHR) stated that the prohibition of voting, which was imposed as an automatic consequence of an indiscriminate imprisonment sentence, regardless of the nature and gravity of the offense and the personal situation of the convict, was incompatible with the principle of proportionality and that such a restriction was incompatible with the principles of a democratic society and that the right in question and the aforementioned protocol article were violated. Again, in the Söyler v. Turkey judgment, a violation was found on the grounds that depriving convicts who were not in the penal institution due to probation and conditional release from voting was a strict restriction on this right.

In this study, the legitimacy of the regulations restricting the right to vote of convicts will be discussed, and the limits of the discretionary power of states to protect these rights will be discussed. In the light of the Hirst v. the United Kingdom and Söyler v. Turkey judgments, which set out the basic criteria for the restriction of the right to vote, the legal amendments and regulations made in this regard in Turkish law will be discussed.

Finally, in the light of the judgments, it will be revealed how the right of convicts to vote is regulated in the current legislation. The aim of the study is to identify various problems regarding the limitations imposed on this right and to contribute to the current legal debates on these problems.

Keywords: Convicts, Right to Vote, ECHR, universal suffrage principle, limitation

BIBLIOMETRIC ANALYSIS OF DEVELOPMENTS IN ARTIFICIAL INTELLIGENCE ON UNEMPLOYMENT AND EMPLOYMENT: AN EVALUATION FOR DISABILITY EMPLOYMENT

Dr. Lecturer Gökhan GUNEY
Bolu Abant Izzet Baysal University, Seben Izzet Baysal Vocational School, Social Security Programme, guneygokhan@ibu.edu.tr , ORCID: 0000-0003-2786-9761.

Lecturer Dr. Umut SOLMAZ
Bolu Abant Izzet Baysal University, Seben Izzet Baysal Vocational School, Social Services Programme, umut.solmaz@ibu.edu.tr, ORCID: 0000- 0003- 1112- 3041.

ABSTRACT

The use of artificial intelligence as a substitute for labour brings about different debates on the labour market, employment and unemployment. In this perspective, the aim of this study is to reveal the impact of artificial intelligence applications on employment and unemployment in the literature and to make an evaluation of the concept of 'disabled employment'. In this framework, the studies in which the concepts of 'employment' or 'unemployment' and 'artificial intelligence' were mentioned in the WoS (Web of Science) database without limitation of field, year and author were searched and 1624 research articles were found. The findings obtained were analysed and interpreted with the biblimetrix, biblioshiny extension of the R Studio application. In these studies, 17,237 authors, 34.17% international co-operation rate and 79,545 references were found. The fact that the annual growth rate of these studies is 11.08% shows that studies on the concepts of artificial intelligence, employment and unemployment have attracted the attention of researchers and have become a popular point in the literature.

It has been observed that the number of studies on disabled people and employment of disabled people, which constitute the scope of this study in terms of people and subject matter, is quite limited. The addition of the word 'disability' to the terms 'employment' or 'unemployment' and 'artificial intelligence' in the WoS database shows that there are only 20 research articles combining the topics of artificial intelligence, unemployment, employment and disability. Although there are 1270 research articles including the concepts of unemployment, employment and disability, the fact that the number of articles decreased to 20 when the concept of artificial intelligence was added to this scan shows that the increasingly popular artificial intelligence discussions in the literature have not been sufficiently studied with the dimension of disabled employment. The fact that the effect of artificial intelligence on the unemployment of disabled people, which is seen as one of the disadvantaged positions of working life, does not attract enough attention reveals the importance of the study.

Keywords: Artificial Intelligence, Employment, Disability, Disability Unemployment

Gel Codes : E24, J01, J21

RELATIONSHIP BETWEEN ORGANIZATIONAL CULTURE AND PSYCHOLOGICAL CAPITAL LEVELS AMONG EMPLOYEES IN THE CONSTRUCTION SECTOR

Latif YONDER
Istanbul Nişantaşı University, Postgraduate Education Institute, Psychology Master's Thesis,
latif.yonder@gmail.com

Dr. Öğr. Üyesi Ali ÖZCAN
Istanbul Nişantaşı University, Faculty of Economics, Administrative and Social Sciences,
ali.ozcan@nisantasi.edu.tr

ABSTRACT

This study aims to examine the relationship between organizational culture and psychological capital levels among employees in the construction sector and to evaluate the impact of demographic factors (age, gender, education, job category, and work experience) on these two variables. The research was conducted with 450 employees, and the collected data was analyzed. The findings indicate a positive and significant relationship between organizational culture and psychological capital. In workplaces with a supportive organizational culture, employees showed increased levels of psychological capital components, such as self-efficacy, hope, optimism, and resilience. An increase in employees' psychological capital positively impacts their motivation and job performance. Demographic factors also play a role in these variables. Employees with more experience and higher education levels demonstrated higher scores in both psychological capital and organizational culture. Specifically, employees aged 40-54 years and those with more than 11 years of experience exhibited higher levels of hope and resilience, highlighting the importance of experience in the workplace. Additionally, as education levels increase, employees' adaptation and commitment to organizational culture also improve. In conclusion, enhancing the psychological capital and organizational culture levels of employees in the manufacturing sector positively influences job satisfaction and performance. Developing organizational practices such as communication systems, reward mechanisms, and participation in decision-making is essential for fostering employee engagement and motivation. This study emphasizes the need to integrate psychological capital and organizational culture into management strategies to create a successful work environment in the manufacturing sector.

Keywords: Organizational culture, psychological capital, construction sector

THE EFFECT OF PETROL AND DIESEL PRICES ON INFLATION IN TURKEY: GRANGER CAUSALITY AND REGRESSION ANALYSIS

Dr. Mehmet Akif PEÇE
Dr. Lecturer, Bartın University, Faculty of Economics and Administrative Sciences, Department of Economics, E-mail: apece@bartin.edu.tr, ORCID: 0000-0002-2870-5008

ABSTRACT

This study investigates the impact of gasoline and diesel pump prices on the Consumer Price Index (CPI) in Turkey through a time series analysis. Given the complexity of the relationship between oil prices and macroeconomic indicators, as well as the increasing prominence of high inflation as a critical economic issue in Turkey, this research provides valuable insights into the country's inflation dynamics. Understanding the determinants of inflation is essential for developing effective monetary and fiscal policies, especially in periods of economic uncertainty.

The empirical findings indicate that an increase in central government budget expenditures has a statistically significant and positive effect on inflation. Specifically, a 1% increase in government spending leads to approximately a 0.35% rise in the CPI. Likewise, diesel prices exhibit a significant impact on inflation, as a 1% increase in diesel prices results in a 0.52% rise in the CPI. However, gasoline prices do not have a statistically significant effect on inflation.

Examining the pandemic-specific effects, the dummy variable for the COVID-19 period shows a positive impact on the CPI, suggesting that inflationary pressures intensified during the pandemic. Moreover, interaction terms reveal that while the effect of diesel prices on inflation weakened during the pandemic, the impact of gasoline prices increased. These results underscore the sectoral variations in inflationary pressures and spending dynamics during crisis periods. Understanding the link between energy prices and inflation is crucial for macroeconomic stability, as it informs policymakers in designing strategies to mitigate inflationary risks and ensure economic resilience.

Keywords: Inflation, Gasoline prices, Diesel prices, Covid-19 Pandemic

Jel Codes: E31, F62, J48

DISCUSSING THE TRANSFORMATIVE IMPACT OF ARTIFICIAL INTELLIGENCE AS A DISRUPTIVE TECHNOLOGY ON BUSINESSES IN THE CONTEXT OF SUSTAINABILITY

İsmail Özdemir[1], Murat Uzunlu[2]
[1]Dr. Öğr. Üyesi, İstanbul Gedik Üniversitesi, İktisadi, İdari ve Sosyal Bilimler Fakültesi, İşletme Bölümü,ORCID: 0009-0007-0438-9518 email: ismailozd@gmail.com

[2]Doktora Öğrencisi, İstanbul Gedik Üniversitesi, İktisadi, İdari ve Sosyal Bilimler Fakültesi, İşletme Bölümü,ORCID: 0009-0006-4780-9220 email: murat.uzunlu@gmail.com

ABSTRACT

In today's era of technological transformation, the term "disruptive technologies" describes developments that fundamentally shake traditional industrial and economic structures, introducing innovative business models and market dynamics. In this context, artificial intelligence (AI) stands out as one of the most significant factors, not only by enabling automation and increasing efficiency but also by reshaping societal structures and the labor market. Consequently, classifying AI as a disruptive technology necessitates discussing both the opportunities offered by technological progress and the uncertainties and adaptation challenges it creates within the business world, especially from a sustainability perspective.

AI holds considerable potential for transforming business processes. In conventional production and service models, routine tasks that depend on human labor are being replaced by automation solutions facilitated by intelligent robotic systems, chatbots, and natural language processing techniques. For instance, repetitive tasks on assembly lines are now handled by smart robots, while customer services increasingly rely on data analytics–supported applications, thus reducing error rates and speeding up operations. Nevertheless, this technological transformation raises concerns regarding job security, particularly for workers in low- and medium-skilled positions. At the same time, in fields that require advanced skills, AI-assisted applications play a critical role in accelerating processes such as strategic decision-making, risk analysis, and the development of innovative solutions, ultimately creating new employment opportunities.

From the labor market perspective, AI's disruptive impact brings about a two-pronged transformation. On one hand, the rise in automation increases the risk of job losses in low- and medium-skilled occupations; on the other hand, it amplifies the demand for highly qualified labor. This situation leads to an evolution in existing job definitions and triggers adaptation issues within the labor market. Additionally, these technological shifts have the potential to deepen socio-economic inequalities, paving the way for growing income disparities. At this juncture, it is worth emphasizing that the societal implications of technological progress extend beyond economic efficiency, having important ramifications for the structural transformation of the labor market and social equilibrium.

Against this backdrop, the transformations brought about by AI and automation also raise questions about income inequality and the digital divide. Although technological advances boost productivity and profitability, the concentration of these benefits in capital-intensive industries prevents the widespread distribution of economic growth across broader segments of society. The proliferation of digital platform economies often coincides with job insecurity and low-wage practices, thereby widening the income gap and exacerbating social inequalities. In particular, rural areas and low-income communities suffer from insufficient digital infrastructure, limiting their ability to take full advantage of technological opportunities and further accentuating the digital divide. In this process, comprehensive policy interventions become imperative to protect societal welfare and minimize the potential adverse effects of technological transformation.

Within academic discussions, the categorization of AI as a disruptive technology is rooted in the uncertainties brought about by technological innovation and the attendant need to reshape societal and economic structures. Accordingly, multidisciplinary approaches should be adopted, and government, academia, the business sector, and civil society organizations must collaborate to develop strategies that ensure the equitable distribution of opportunities arising from technological advancement. While forecasts suggest that AI will maintain its leading role in transforming both labor markets and economic paradigms, they also highlight the inevitability of creating comprehensive strategies to mitigate social and economic risks.

In conclusion, the disruptive mechanisms of AI and automation technologies bring about profound transformations across production and service sectors. These changes can yield negative outcomes, such as the loss of jobs and growing income inequality in low- and medium-skilled positions, yet they simultaneously open up new employment prospects in fields requiring high-level skills. Hence, it is crucial to strike a balance between technological efficiency and the preservation of social justice, economic stability, and digital accessibility. Education policies, investments in digital infrastructure, equitable taxation, and regulations governing ethical AI applications are all of paramount importance in overcoming the challenges posed by this transition. Policymakers and academic communities must carefully assess both the opportunities and risks presented by AI, formulating multidimensional and inclusive strategies. In this regard, viewing AI as a disruptive technology offers a valuable lens for understanding the radical effects of technological change on work processes, labor markets, and societal structures. Thus, the importance of interdisciplinary collaboration and comprehensive policy interventions is once again underscored in order to channel the advantages of technological innovations into societal benefits and to build a more equitable and sustainable future.

Keywords: Disruptive Technologies, Artificial Intelligence, Transformative Impact, Sustainability

Jel Codes: O33, O32, Q01, Q55

USING THE LARGE LANGUAGE MODEL IN ENTREPRENEURIAL SUCCESS RESEARCH[1]

Ass. Prof. Dr. Osman AKARSU
Bilecik Şeyh Edebali University, Faculty of Economics and Administrative Sciences, Department of Management Information Systems, https://orcid.org/0000-0002-0595-6795,osman.akarsu@bilecik.edu.tr

Ass. Prof. Dr. Hüseyin PARMAKSIZ
Bilecik Şeyh Edebali University, Faculty of Economics and Administrative Sciences, Department of Management Information Systems, https://orcid.org/0000-0001-8455-5625, huseyin.parmaksiz@bilecik.edu.tr

ABSTRACT

Access to data sources in social sciences, especially business science, has become problematic in recent years. In all studies where the data source is human, the objectivity and impartiality of the data may be under suspicion. The use of videos and transcripts in these videos is a new research area that has the potential to solve this situation. Science always contains hidden information and deep meanings that cannot be obtained by quantitative methods and should be investigated by qualitative methods (Wach, Stephan, & Gorgievski, 2016, p. 1113; Yılmaz, Karaman, & Cinar, 2013, p. 155). Qualitative research has been criticized for the potential subjective bias of participants and practitioners at the point of obtaining data while trying to reach social reality by its nature. Conducting qualitative research with video data as in this study is a new phenomenon (Heath, Hindmarsh, & Luff, 2010). Large language models (LLM), one of the artificial intelligence tools, can be a solution to the problems of video-based qualitative research (Abram, Mancini, & Parker, 2020). In this context, using the video-based research method (Ormiston & Thompson, 2021, p. 976), which is a new research phenomenon for social sciences, the "entrepreneurial success" themed videos obtained from the channel named "StoryBox" broadcasting on YouTube between 2020-2024 were analyzed. This study aims to use big language models (LLM) and natural language processing (NLP) to gain in-depth insights into qualitative research themes and categories, the whys and hows of social phenomena. In this study, the transcripts of the videos were extracted with "Youtube API". The analysis process of the study consists of text preprocessing and thematic feature extraction, revealing the semantic network structure by optimizing modules, conceptual categorization with Zero-shot classification, and N-gram-based subcategory discovery. In the findings part of the study, 18 categories were obtained in 3 thematic areas related to interventional success. This study is considered to be valuable in terms of its potential for dissemination and diversification in many fields of social and health sciences. Especially in terms of implicit or explicit knowledge transfer of the institutional and scientific memory of professionals in health and social sciences and knowledge transfer for future research, this research model is critical in transferring not only technical knowledge but also intuitive decision-making mechanisms and problem-solving strategies.

Keywords: Entrepreneurial Success, Video Based Research, Artificial Intelligence

Jel Codes: C35, D83

---

[1] Produced within the scope of Bilecik Şeyh Edebali University Scientific Research Projects Unit, GAP-2024-593 numbered project titled "Obtaining qualitative research themes and categories with Large Language Model on Youtube videos".

PORTER'S GENERIC STRATEGIES AND FIRM PERFORMANCE: A STUDY ON THE INSURANCE INDUSTRY IN GHANA

Sadik JIBREAL
Istanbul Nişantaşı University, Postgraduate Education Institute,0000-0001-5040-0449Business Adminitration Doctoral Thesis, jibreal.sadik@gmail.com

Dr. Öğr. Üyesi Ali ÖZCAN
Istanbul Nişantaşı University, Faculty of Economics, Administrative and Social Sciences, ali.ozcan@nisantasi.edu.tr

ABSTRACT

This study aimed to investigate the effects of implementing generic strategies on firm performance among insurance companies in Ghana. The primary purpose of this research was to determine how insurance businesses in Ghana fared after adopting generic strategies. The study employed a descriptive survey research method, sampling 250 top-level management members of insurance companies responsible for strategy implementation. A questionnaire collected information about the firms, and SPSS 23 for Windows conducted the analysis. The SPSS 23.0 program facilitated the identification of demographic characteristics, the descriptive characteristics of scale items, reliability analysis, normality tests, and regression analysis. The results show that Porter's generic strategies positively affect firm performance. Focus strategy had the greatest impact on firm performance, while cost leadership strategy had no significant correlation with firm performance. The study concluded that generic strategies positively impact firm performance, recommending firms to carefully analyze the competitive environment before selecting a strategy for competitive advantage.

Keywords: Generic strategies, firm performance, competitive advantage, Ghana insurance industry

A NEW TREATMENT APPROACH FOR INDIVIDUALS DIAGNOSED WITH DEPRESSION: DIGITAL MENTAL HEALTH APPLICATIONS*,

Assistant Prof. Dr. Sevda Pınar MEHEL TUTUK
Title, Author Name, University Name, Faculty Name, Department Name, ORCID:, E-Mail
(Single Line Spacing)

ABSTRACT

Recently, the number of digital applications for both physical and mental health has been increasing rapidly. Applications, the use of which is rapidly becoming widespread, are offered as an alternative and supportive option in the treatment of mental health diseases. Research on the use of artificial intelligence in psychiatry has been increasing in recent years. The aim of this review is to review the role of artificial intelligence in individuals diagnosed with depression, in line with the existing literature on the applications, use and limitations of artificial intelligence in the field of mental health in individuals diagnosed with depression.

Keywords: depression, artificial intelligence, mental health

QUANTITATIVE ANALYSIS OF SOCIO-SPATIAL CHANGE IN HISTORICAL URBAN SPACES: A SCALE DEVELOPMENT STUDY

Dr. Şerafettin SEVGİLİ
Istanbul Nişantaşı University Department of Sociology ORCID: 0000-0003-2649-6385,
E-mail: serafettin.sevgili@nisantasi.edu.tr

ABSTRACT

Historical urban spaces are subject to continuous transformation not only in their physical structures but also in their social and spatial dynamics. This study quantitatively evaluates the process of socio-spatial change in Lonca Neighborhood, a historically significant urban area, through a specifically developed scale. The research measures residents' perceptions of fundamental socio-spatial factors such as sense of belonging, communal living culture, attitudes towards outsiders, rituals, spatial transformation, migration, social change, and poverty.

The scale, which constitutes the foundation of this study, was developed based on survey data collected from 251 households through face-to-face interviews. It was then subjected to confirmatory factor analysis. Reliability and validity analyses were conducted, and the interrelations among socio-spatial factors were tested using correlation and structural equation modeling. The data were analyzed through various statistical methods, including frequency analysis, chi-square tests, normality tests, and difference analysis.

The findings indicate that socio-spatial transformation in historical urban spaces is perceived differently by various social groups, and that individuals' sense of belonging and migration histories directly influence their social networks. Additionally, the study reveals that physical transformations in urban spaces play a crucial role in shaping social capital and neighborhood identity. The developed scale can serve as a useful tool for future research in similar neighborhoods, providing a quantitative framework for analyzing urban transformation and social structures.

Keywords: Historical Urban Spaces, Socio-Spatial Change, Quantitative Analysis, Spatial Identity, Neighborhood Dynamics, Factor Analysis, Structural Equation Modeling

POSITIVE AND NEGATIVE EFFECTS OF INSTITUTIONALIZATION IN FAMILY BUSINESSES

Tuba SARACOĞLU
Istanbul Nişantaşı University, Graduate Education Institute, Department of Business Administration, tubats@gmail.com

Dr. Öğr. Üyesi Ali ÖZCAN
Istanbul Nişantaşı University, Faculty of Economics, Administrative and Social Sciences, ali.ozcan@nisantasi.edu.tr

ABSTRACT

Family businesses form the backbone of global economies, encompassing a spectrum that ranges from small-scale enterprises to multinational corporations. The benefits provided by these businesses create a collective impact. In this context, it can be asserted that family businesses consist of employees with strong interpersonal ties, characterized by a unique blend of loyalty and business acumen. Based on this information, this study aims to evaluate the positive and negative effects of institutionalization in family businesses within a theoretical and practical framework. The research highlights that institutionalization provides positive effects such as sustainability, the adoption of a professional management culture, and access to financial resources, while also creating challenges such as conflicts during leadership transitions and potential differences in interests among family members. In addition to the literature review, in-depth interviews were conducted with 14 individuals in the senior management of family businesses. These findings are presented. In this context, the advantages and disadvantages experienced by the relevant companies during their institutionalization process have been discussed in detail. The results obtained from the research indicate that institutionalization plays a critical role in family businesses' achievement of long-term goals, while also emphasizing that the challenges of the process should not be overlooked. Opinions suggesting that family members increase the potential for conflict highlight the necessity of establishing a good strategic planning and communication mechanism. It is thought that it contributes to the literature and practice by offering suggestions to increase the competitiveness of family businesses, in the context of the results obtained in the study.

Keywords: Family Businesses, Institutionalization, Corporate Governance

Jel Codes: M10, M14, L25, L26

ARTIFICIAL INTELLIGENCE-SUPPORTED PSYCHOSOCIAL SUPPORT AND NURSING

RN. Yeşim BAĞCI [1] ; PhD. RN. Mağfiret KAŞIKÇI[2]

[1]Erzincan Binali Yıldırım University, Refahiye Bahar Yıldırım Health Services Vocational School, Department of Medical Services and Techniques Title, 0000-0003-3183-5855, yesim.bagci@erzincan.edu.tr

[2] Atatürk University, Faculty of Nursing, Department of Nursing Fundamentals, Orcid: 0000-0001-5136-462X, magfiret@atauni.edu.trAuthor

ABSTRACT

Artificial intelligence (AI) is a technology that aims to perform cognitive processes specific to human intelligence through machines and has a wide range of applications in health sciences. Since the nursing profession is a discipline that focuses not only on providing physical care but also on the emotional and social needs of individuals, the integration of AI into nursing practice is of great importance. This study examines the role of AI in psychosocial support processes and its effects on nursing practices.

AI-based systems allow nurses to provide individualized care while reducing their workload. In particular, virtual therapists, natural language processing (NLP) algorithms, and biosensor-based patient monitoring systems analyze individuals' emotional states to provide early intervention. In addition, AI-supported applications strengthen collaboration between multidisciplinary teams and provide more effective coordination between psychologists, social workers, and nurses. However, data privacy, algorithmic biases, lack of legal regulations, and lack of human values such as empathy are significant challenges in AI integration.

AI is also seen to create a significant transformation in educational processes. AI-supported educational applications such as virtual patient simulations and personalized learning plans contribute to the professional development of nursing students by increasing their knowledge and skills. However, technology costs and lack of infrastructure make it difficult to implement it equally in all institutions.

As a result, while AI offers significant opportunities for the nursing profession, it stands out as a transformation tool that should be supported by ethical and legal regulations. The nursing profession can provide more effective healthcare services in the future by combining the opportunities offered by technology with a human-centered approach.

Keywords: Artificial Intelligence, Nursing, Psychosocial Support, Health Services, Education, Multidisciplinary Collaboration

EVALUATION OF MANAGEMENT SKILLS OF EXECUTIVE NURSES IN HEALTH SERVICES BY SUBORDINATES

Zübeyde Demir
Nişantaşı University, Institute of Graduate Studies, Department of Health Sciences, Health Management Program, ORCID: 0009-0001-0517-1082, zubeyde5629@gmail.com

Dr. Öğr. Üyesi Ali ÖZCAN
İstanbul Nişantaşı Üniversitesi, İktisadi, İdari ve Sosyal Bilimler Fakültesi, ali.ozcan@nisantasi.edu.tr

ABSTRACT

This study aims to examine how the leadership skills of nurse managers are perceived by their subordinates and the effects of this perception on the effectiveness of health services. Another aim of the study is to evaluate the effects of management skills on subordinates' motivation, job satisfaction and performance and to contribute to leadership practices in the health sector in this direction. Critical skills such as communication, team management, leadership, strategic thinking and problem solving were evaluated in the study, and it was aimed to determine the strengths of managers in these skills and the aspects that need to be developed. The data collected from 388 nurses working in a state hospital in Istanbul were analyzed with the 'Scale for Assessing the Skills of Nurse Managers'. The overall Cronbach Alpha value of the scale was 0.980, which confirmed the reliability of the measurement tool.

According to the results, nurses who worked for a short period of time (1-3 years) gave more positive scores to managerial skills (113.48±26.83), while those who worked for 11 years or more showed a more critical approach and gave lower scores (97.75±28.04; $F=7.763$, $p<0.001$). Individuals with higher income levels had more positive evaluations of leadership skills (Income More than Expenses: 113,55±31,65; Income Less than Expenses: 96,67±28,83; $F=12,119$, $p<0.001$). The study also revealed that the perception of leadership skills was significantly affected by factors such as working time, income level and individual motivation. Implementing training programs tailored to the individual needs of nurse managers and receiving regular feedback from subordinates are critical for improving leadership skills and increasing the quality of healthcare services. These findings once again emphasize that leadership development programs should be designed in a dynamic and individualized structure.

Keywords: Nurse Manager, Leadership Skills, Health Care Management, Training Programs

PUBLIC PERCEPTIONS OF ARTIFICIAL INTELLIGENCE IN HEALTHCARE: A STUDY AMONG STUDENTS IN KASHMIR VALLEY INDIA

[1]Ronika Yousuf, Professor, Department of Zoology, Vishwa Bharti Women's College Srinagar, Kashmir, Jammu and Kashmir, India
Rooma Yousuf, Lecturer PGT Department of Biology Pearls Academy CBSE , Aurangabad India
[2]Angeleen Zehra, scholar, Green Valley Educational Institute (GVEI) Srinagar, Kashmir, Jammu and Kashmir, India
Correspondence to Ronika Yousuf
Corresponding Email: alironika123@gmail.com

ABSTRACT

Artificial intelligence (AI) holds immense promise for transforming healthcare delivery, but its successful integration depends heavily on public acceptance and comprehension. This study investigated the level of awareness, understanding, and perceptions surrounding AI in healthcare among students within the Kashmir Valley, India. A cross-sectional survey methodology was employed to gauge participants' general AI knowledge, their views on the potential advantages and disadvantages of AI in healthcare, and their specific anxieties concerning job security, data privacy, and faith in AI-driven systems. Gender-based differences in perception were also analyzed. The results indicated a strong general awareness of AI among the student population, although their understanding of its specific healthcare applications varied. While students expressed optimism about AI's potential to enhance healthcare, they also voiced substantial concerns regarding job displacement, privacy breaches, and trust in AI. Notably, gender did not significantly influence these perceptions. These findings highlight the importance of targeted AI education initiatives that address ethical considerations and foster public trust. By promoting a deeper understanding of AI and openly discussing potential risks and mitigation strategies, stakeholders can facilitate the responsible and ethical implementation of AI within healthcare systems, ensuring a balanced perspective among the public.

Keywords: Artificial Intelligence in Healthcare, Public Awareness, Patient Safety, Ethical Considerations, Healthcare Technology

INTEGRATING NUSANTARA PHILOSOPHY INTO MODERN EDUCATION: STRENGTHENING LOCAL WISDOM AND TECHNOLOGICAL SYNERGY

Prof. Dr. Achmad Fathoni Rodli and Assistance AI

ABSTRACT

The rapid development of technology and globalization has significantly impacted societal values, including ways of thinking and understanding knowledge. Amid these changes, philosophy remains fundamental in shaping critical, logical, and wise thinking patterns. In the Nusantara context, philosophy reflects unique characteristics integrating local wisdom, religion, and culture. The principle of *"Adat bersendi Syara', Syara' bersendi Kitabullah"* illustrates the synergy between tradition and Islamic values, making Nusantara Philosophy a crucial framework for addressing modern challenges.

However, the integration of Nusantara Philosophy into education, particularly in teaching the Philosophy of Science, faces challenges. Most educators rely heavily on Western philosophical concepts, often overlooking the potential of Nusantara Philosophy to strengthen national identity and provide alternative solutions to global issues. This study aims to: (1) enhance educators' competencies in understanding and teaching Nusantara Philosophy, (2) develop contextually relevant materials and modules, (3) design evaluation instruments, such as questionnaires, to assess the effectiveness of Nusantara Philosophy in education, and (4) integrate its values into education, technology, and character development.

Using a mixed-methods approach, this research involves qualitative explorations with educators and experts, quantitative surveys of students, and the development of learning modules aligned with the challenges of the modern era. The findings highlight the significance of local wisdom in forming critical and ethical perspectives, particularly when combined with technological advancements such as artificial intelligence. The outcomes include validated teaching modules, effective evaluation instruments, and actionable recommendations for integrating Nusantara Philosophy into education. This research reaffirms that Nusantara Philosophy is not only a foundation for cultural preservation but also a strategic tool for fostering innovation and resilience in addressing contemporary global challenges.

Keywords: Nusantara Philosophy, Philosophy of Science, Education, Local Wisdom, Technology Integration, Character Development

SMART CITIES AND ARTIFICIAL INTELLIGENCE: IMPACTS OF DIGITAL TRANSFORMATION IN PUBLIC ADMINISTRATION

Ayten ALLAHVERDİYEVA

Azerbaycan Devlet İktisat Universitesi (UNEC)
allahverdiyevaayten966@gmail.com ORCID: 0009-0007-9829-8173

ABSTRACT

The 21st century is a time of significant change. One of the important developments in this century, called the age of digitalization, has been the effective use of artificial intelligence. Artificial intelligence is important in public administration as in many other fields. Digital transformation in public administration refers to the integration of digital technologies to make government services more efficient, transparent and accessible. This process brings the services of public institutions to digital platforms, providing citizens with easy access, speeding up transactions and ensuring more effective use of public resources. Digital transformation is leading to significant changes in public administration in many dimensions. This change is shaped by global, regional and local dynamics. It is known that the effects of the digitalization process of public services on society are far-reaching.

This study examines the existing literature on the effects of digital transformation in the field of public administration.

Keywords: Digitalization, Artificial Intelligence, Public Administration

ARTIFICIAL INTELLIGENCE AND HIGHER EDUCATION: A COMPREHENSIVE REVIEW

Aspalilah ALIAS[1,2,,3], Nadiawati ABDUL RAZAK[4], Arofi KURNIAWAN[3]

[1]Department of Basic Sciences, Faculty of Dentistry, Universiti Sains Islam Malaysia, Kuala Lumpur

[2]Department of Forensic Odontology, Faculty of Dental Medicine Universitas Airlangga - Indonesia

[3]Centre of Research for Fiqh Forensics and Judiciary (CFORSJ), Institut Sains Islam (ISI), Universiti Sains Islam Malaysia[1]

[4]Unit of Forensic Medicine, Faculty of Medicine and Defence Health, National Defence University of Malaysia, Kem Sungai Besi, 57000, Kuala Lumpur, Malaysia, Corresponding author: draspa76@usim.edu.my

ABSTRACT

Artificial Intelligence (AI) has transformed university-level quality assurance, governance, and education methods. This paper analyses 20 papers on various applications of AI in the academic field. In this paper, AI found its potential for improving the efficiency of universities, student engagement, and learning outcomes. AI technologies including robots, gamification strategies, intelligent teaching systems, and automated assessment tools have shown significant improvements in teaching efficiency, and monitoring student's performance and learning experiences. However, integrating artificial intelligence into higher education poses challenges, such as ethical concerns, data privacy risks, biases, and institutional AI governance. AI in different universities, indicating the need for structured policies and frameworks to promote responsible implementation of AI. AI's role in academic integrity and research ethics is being discussed, with concerns about the ethical implications of plagiarism detection, content creation, and AI-assisted decision-making in the assessment and accreditation of faculty. This review provides a comprehensive analysis of the role of AI in higher education and identifies key opportunities and obstacles. Future research should focus on the development of AI governance frameworks that correspond to ethical standards and institutional policies.

Keywords: Artificial Intelligence (AI), Higher Education, Educational Technology, Adaptive Learning Learning Analytics

FORENSICVAULT: TRANSFORMING FORENSIC EVIDENCE MANAGEMENT ONLINE

Dr. Nadiawati ABDUL RAZAK[1*]

[1] *Unit of Forensic Medicine, Faculty of Medicine and Defence Health, National Defence University of Malaysia, ORCİD ID: 0000-0002-7075-7848*
Corresponding author: nadiawati@upnm.edu.my

ABSTRACT

Introduction: The chain of custody is documented evidence of the forensic specimen handling from collection to the final disposition. ForensicVault is an innovative web-based system designed to track the movement of test specimens efficiently for forensic settings and criminal investigations. The chain of custody should be constantly maintained; thus, the system provides greater protection against specimen loss or damage by improving the forensic experts' capacity to securely store specimen data and monitor the movement of evidence between departments and the police. **Method:** The ForensicVault system was developed using PHP as the programming language and MySQL as the database system and using a user-centered approach, which the data collected from interviews. The system aims to create a protected and intuitive web-based system developed for law enforcement and forensic experts. **Discussion:** The ForensicVault provides an effective solution for the secure storage and tracking of all forensic test specimens to minimize the risks of loss or contamination of the evidence. The system facilitates efficient monitoring and documentation of the chain of custody, ensuring that evidence can be presented in court with integrity and that only authorized persons can access and manage the specimens. **Conclusion**: The development of ForensicVault represents a remarkable milestone in efficient forensic evidence management and a secure system that minimizes risks of tampered evidence. This innovation reinforces compliance with chain-of-custody protocols, trust in forensic practices, and judicial outcomes.

Keywords: artificial intelligence, chain of custody, evidence management, forensic, secure storage

PROBLEMS AND SOLUTİONS İN INTEGRATİNG ARTİFİCİAL INTELLİGENCE İN EDUCATİON: THE CASE OF UZBEKİSTAN

Phd. Doç. Feruza D. SHERMANOVA
Toshkent Amaliy Fanlar Universiteti,
İqtisodiyat Fakulteti, Informatıka Kafedrası,
Orcid: 0009-0002-0985-4793,
e-mail: shermanovaf@gmail.com
Doç. Dr. Ali KONAK
Karabük Üniversitesi,
İktisadi ve İdari Bilimler Fakültesi, İktisat Bölümü,
Toshkent Amaliy Fanlar Universiteti, İktisodiyot bo'limi,
Orcid: 0000-0003-1804-8339,
e-mail: alikonak@karabuk.edu.tr

ABSTRACT

This article analyzes the challenges and solutions in integrating artificial intelligence (AI) into the educational process. It explores the opportunities that AI technologies offer in education, particularly in teaching, assessment, creating personalized learning plans, and management. The article highlights the role of AI in driving changes within the education system, improving efficiency, and simplifying the educational process. However, it also emphasizes the need for proper management of AI, preserving the human factor, and addressing ethical concerns. The article discusses some of the technical and social issues related to the application of AI in the education system and proposes solutions to address them. Additionally, it examines the opportunities for teachers to master modern technologies and utilize them effectively, as well as the efficient ways AI tools can assist educators. The significance of AI technologies in education and their role in easing teachers' workload are investigated. The article reviews the contributions of AI to the educational process, including personalized learning, automated assessment, and interactive learning materials. Furthermore, the article highlights the potential for AI to further develop in the field of education, such as through virtual assistants, adaptive learning platforms, and expanding global educational opportunities. In conclusion, AI is shown to play a crucial role in making education more accessible, personalized, and efficient, while providing teachers with more opportunities to focus on student engagement. This article is useful for achieving scientific and practical goals aimed at improving and refining the educational process.

The article provides recommendations for the pedagogical aspects of applying AI technologies in the educational process, their role in enhancing students' knowledge and skills, and the widespread implementation of AI technologies in Uzbekistan's education system. The research results demonstrate the importance of innovative approaches in modern education and open opportunities for the application of AI technologies in other fields in the future.

Keywords: Artificial Intelligence (AI), Innovative Approaches, Integration, Knowledge Level, Innovations in Education.
Jel Kodu: D83

AN EXAMPLE OF DINSTITUTIONALIZATION IN THE CONTEXT OF NONDECISION-MAKING: SOIL CONSERVATION BOARDS

Dr. Kağan SARGI
PhD, Giresun University, 0009-0007-4548-057X, Independent Researcher,
kagansargin@hotmail.com

Doç. Dr. Ahmet YAZAR
Erzincan Binali Yıldırım University, Faculty of Economics and Administrative Sciences,
0000-0003-0350-8080, ahmet.yazar@erzincan.edu.tr

ABSTRACT

The organization of public administration in administrative issues related to the environment has become organized and controlled through boards and commissions, especially after the 2000s. Separate boards and commissions have been established for different environmental elements. For example, organizational structures such as Local Environmental Boards, Integrated Coastal Areas Commissions, Soil Conservation Boards, Pasture Commissions, Wetland Commissions, Hunting Commissions have a quality of presenting opinions to the central administration on environmental issues. In addition to boards and commissions established only locally, there are also boards and commissions with organizational structures at both local and national levels. For example, local wetland commissions are organized under the roof of the national wetland commission. However, soil conservation boards, which are organized only locally, are organized only at the local level and are not based on a national level organization. Another important issue regarding boards and commissions is that they are public organizations that include local governments and all other actors at the local level. Although they are thought to constitute an important meeting point in terms of the operation of common sense, there are situations that need to be questioned regarding how much common sense can be realized or put into practice in terms of their operations. However, the critical issue at this point is that the decisions taken by such public organizations are extremely limited in their binding nature and ability to enforce sanctions. Within this background, it can be claimed that these organizational units, which we think have a say in environmental issues, actually create a state of administrative indecision in environmental issues, prolong the decision-making process, and even create an inability to make a decision, and that this state of indecision that has become chronic suggests a conscious choice. In a sense, this can be called a policy of nondecision. There are institutional structures that are concretized in an organizational sense, have their own legislation and administrative functioning, but the state of indecision produced by these structures brings with it the lack of institutional authority for the problems awaiting solution. In this respect, this type of deinstitutionalization, which occurs in accordance with neoliberal conditions, has created organizational structures that function on the basis of Bachrach and Baratz's (1962) "nondecision-making". The basic assumption of the research is that this indecision experienced in the decision-making processes of boards and commissions with duties and responsibilities related to the environment at local and national levels brings about a process in favor of actors with demands that have negative environmental impacts. Based on this assumption, the aim of the study is to reveal to what extent it is possible for board and commission organizations at the local level to produce solutions to environmental issues and how the policy of nondecision serves the continuity of neoliberal conditions and brings about negative environmental consequences.

Within the scope of the study, the decisions taken by the soil conservation board were compiled as examples of the decisions taken by the boards and commissions. The data regarding the

agenda items discussed in the monthly meetings of the Erzincan Provincial Soil Conservation Board between July 2023 and July 2024 were analyzed. The data were modeled using the MAXQDA qualitative analysis program.

The findings show that the decisions taken by the Erzincan Provincial Soil Conservation Board are mainly related to obtaining permits for peacock coops and greenhouse investments in agricultural areas within the borders of the Erzincan Great Plain. It has been determined that greenhouse investments have entered the agenda items in the form of demands for greenhouse-top GES (solar power plant). In addition to these issues, it has been observed that permission requests are included for structures such as vineyards, barns and manure pits. It has been determined that such structures are identified on-site by the Provincial Special Administration, that the structures have already been largely built and that permission is sought to be obtained before the criminal process and that they are brought into compliance with the legislation. There are examples where agenda items are postponed to be discussed again in monthly meetings and decisions are made to conduct the on-site inspection again. The board is more of an intermediary station where basic file preparations are made for decisions to be sent to the Ministry for opinion. Erzincan Provincial Soil Protection Board decisions are taken with an understanding that prioritizes investors. Agricultural areas within the borders of the Great Plain are becoming fragmented. Pasture areas are shrinking. Instead of creating reclamation projects for areas with marginal agricultural land characteristics, these areas are left to investment demands. The fragmentation of agricultural areas will bring irreversible negative consequences in terms of rural development and social resilience. In addition, suggestions can be made regarding the future of new types of public administration organizations through the example of the soil conservation board.

Keywords: Nondecision-making, Deinstitutionalization, Soil Conservation Board

COMPARATIVE EVALUATION OF DIFFERENT ASPECTS OF THE USE OF ARTIFICIAL INTELLIGENCE IN THE EDUCATION SYSTEMS OF UZBEKISTAN AND TURKEY

PhD. Doç. Guli B. TAYLAKOVA
Toshkent Amaliy Fanlar Universiteti,
İqtisodiyat Fakulteti, Informatıka Kafedrası
Orcid: 0009-0007-2461-601,
e-mail: gulitaylakova88@gmail.com

Doç. Dr. Ali KONAK
Karabük Üniversitesi,
İktisadi ve İdari Bilimler Fakültesi, İktisat Bölümü,
Toshkent Amaliy Fanlar Universiteti, İktisodiyot bo'limi,
Orcid: 0000-0003-1804-8339,
e-mail: alikonak@karabuk.edu.tr

ABSTRACT

In recent years, artificial intelligence (AI) technologies have been widely used in educational systems. The integration of these innovations in Uzbekistan and Turkey takes shape with some distinct differences. This article analyzes the key differences in the use of AI in the educational systems of both countries. In Uzbekistan, during the process of modernizing the education system, AI technologies are being utilized to allow students to acquire knowledge in interactive environments. Educational opportunities are being expanded through distance learning and online platforms in the rural areas of Uzbekistan. The use of AI technologies in education in Uzbekistan is at a new stage. Efforts to develop digital education continue through platforms such as “ZiyoNET” and “Kundalik.” However, challenges such as infrastructure and a lack of expertise still persist. In Turkey, advanced technologies have attracted significant interest in individualized educational approaches, machine learning, and automation programs. In the Turkish education system, comprehensive programs have been developed to analyze students, monitor their abilities, and personalize educational processes using AI. In the country, personalized learning resources, automated assessment systems, and virtual assistants are widely used through national educational platforms like “EBA” (Educational Informatics Network). Regular professional development programs are held to help teachers adapt to AI technologies. In both countries, the roles of teachers and the methods of interactive work with students are changing. However, there are economic and cultural differences in the implementation of these technologies between the countries, which are significant factors in the development of education.

The research results show that Turkey has advanced experience in effectively using AI technologies in education, while Uzbekistan has recently entered a new phase in this area. Both countries aim to improve the quality of education by applying AI-based innovative solutions in the future.

Key words: Artificial intelligence (AI), Educational Technologies, Innovation, Uzbekistan Education System,Türkiye Education System,
Jel Kodu: D83

AI-POWERED ETHICAL GREEN MARKETING: BALANCING PROFITABILITY AND SUSTAINABILITY IN CONSUMER HEALTH CHOICES

Ms. Jagriti Gupta
Assistant Professor, School of Business , Galgotias University, Greater Noida, U.P. (India)
E-Mail Id- Jagriti.gupta31.92@gmail.com
https://orcid.org/0009-0006-9287-2843

Prof.(Dr.) Bhupendra Kumar
Amity Business School , Amity University, Gwalior , M.P. India
bkumar@gwa.amity.edu
https://orcid.org/0000-0002-9609-2311

ABSTRACT

The convergence of Artificial Intelligence (AI) and green marketing is transforming consumer decision-making in health-oriented industries, particularly in cosmetics and healthcare products. While brands increasingly emphasize sustainability, ethical concerns related to greenwashing and the profit-driven motives of corporations remain. This study investigates how AI-driven green marketing strategies can achieve a balance between profitability and genuine sustainability, thereby enhancing consumer trust and influencing purchasing decisions.

This research employs a mixed-methods approach, incorporating Natural Language Processing (NLP), sentiment analysis, and machine learning (ML) to analyze consumer perceptions of AI-backed sustainability claims. The study is focused on the Delhi NCR region, using a sample of 500 consumers to examine how AI-based transparency affects consumer trust, brand loyalty, and purchase intent. It further explores the role of AI in detecting greenwashing, analyzing how ethical AI-driven green marketing impacts regulatory compliance and corporate social responsibility (CSR) initiatives.

Findings suggest that AI-powered green marketing increases consumer confidence in health and wellness brands, particularly when third-party verification and AI-backed sustainability tracking are employed. However, ethical challenges persist in ensuring AI fairness, data privacy, and corporate accountability. The study concludes that regulatory frameworks, AI-based sustainability scoring models, and transparency mechanisms are essential for establishing ethical green marketing standards.

This research contributes to sustainable marketing, AI ethics, and consumer behavior literature, offering strategic insights for businesses aiming to balance profitability with authentic environmental responsibility.

Keywords: AI in Green Marketing, Ethical AI, Greenwashing Detection, Sustainable Consumer Choices, AI-Powered Consumer Trust, Regulatory Compliance, Sustainable Cosmetics, Ethical Corporate Profitability

AI İN FORENSİC ANTHROPOLOGY: A SYSTEMATİC REVİEW OF SKULL-BASED SEX AND AGE ESTİMATİON TECHNİQUES

Maher A M ABUMOSAMEH[1*], Aspalilah Alias[2,3,4], Choy Ker Woo[3,5,6], Nadiawati Abdul Razak[7]

[1]Department of Basic Sciences, Faculty of Dentistry, Universiti Sains Islam Malaysia, ORCİD ID: 0000-0003-4253-2147

[2]Department of Basic Sciences, Faculty of Dentistry, Universiti Sains Islam Malaysia, Kuala Lumpur

[3]Department of Forensic Odontology, Faculty of Dental Medicine Universitas Airlangga - Indonesia

[4]Centre of Research for Fiqh Forensics and Judiciary (CFORSJ), Institut Sains Islam (ISI), Universiti Sains Islam Malaysia

[5]Department of Anatomy, Faculty of Medicine, Universiti Teknologi MARA, Sungai Buloh Campus, Selangor, Malaysia

[6]Institute of Pathology, Laboratory and Forensic Medicine (I-PPerForM), Faculty of Medicine, Universiti Teknologi MARA, Malaysia

[7]Unit of Forensic Medicine, Faculty of Medicine and Defence Health, National Defence University of Malaysia

Corresponding author: *draspa76@usim.edu.my*

ABSTRACT

Artificial Intelligence (AI) is transforming research in forensic anthropology, particularly age and sex estimation in skull imaging. Traditional forensic methods include manual measurements that rely on subjective decisions and can be time-consuming. The deep learning (DL) and machine learning (ML) techniques, and automatic systems have provided greater accuracy and speed in cranial feature analysis. This systematic review evaluates the performance of various AI applications for forensic age and sex estimation from skull imaging by comparing model performances and practicality across different imaging modalities and algorithms. It also aims to establish the accuracy, strengths, and limitations of the various AI approaches to assess their integration into forensic investigations. It summarizes nine articles focusing on AI-based forensic identification approaches. The sex classification performance using DL, particularly VGG16-MultiTask, exceeded those of classic ML techniques. Another method, such as wavelet showed a better technique using a skull for identification. These were high-precision techniques that involved a few challenges based on the dataset. AI-aided forensic identification has improved accuracy and speed in sex and age estimation from skull imaging. However, there is a need for further enhancement of dataset diversity and validation protocols for reliable forensic applications.

Keywords: Artificial intelligence, Forensic Anthropology, Skull imaging

WITHIN THE FRAMEWORK OF INNOVATION ACTIVITIES DESIGNING THE MODEL FOR STATE REGULATIONS ON PRIVATE BUSINESSES IN AN INTERNATIONAL CONTEXT

PhD. Doç. Maksuda B. ATANIYAZOVA
Toshkent Amaliy Fanlar Universiteti,
İqtisodiyat Fakulteti, İktisodiyot bo'limi,
Orcid 0009-0000-9403-6693
E mail: maksudaataniyazova@mail.ru

Doç. Dr. Ali KONAK
Karabük Üniversitesi,
İktisadi ve İdari Bilimler Fakültesi, İktisat Bölümü,
Toshkent Amaliy Fanlar Universiteti,
Orcid: 0000-0003-1804-8339,
e-mail: alikonak@karabuk.edu.tr

ABSTRACT

The article discusses models of public-private partnerships and their structural mechanisms in the implementation of innovative activities. The concept of "public-private partnership in the implementation of innovative activities" was formed and the methodology for developing this model of cooperation was determined. The author describes the basic rules of the concept of public-private partnership in the implementation of innovative activities and its advantages that are important for the economy.

Based on the principles of organization and development of public-private partnership, the article analyzes the risks that may arise during the implementation of projects. Also, as a result of the study of the theoretical aspects of these issues, a classification of types of risks and scientifically based proposals and recommendations developed by the author for the prevention and reduction of risks are presented.

The work experience of developed countries, successful business environment, the role and importance of public-private partnership in the implementation of socio-economic projects are very important.

In the conditions of economic instability, the development of infrastructure, which is a decisive factor for ensuring the country's stable economic growth, attracting investments for the implementation of innovative activities is an important issue.

One of these tools is public-private partnership (PPP). This allows to attract additional financial resources, to combine the personnel and management resources of the state and business to solve the problems of innovative development of the national economy. In turn, the need to develop a PPP institution depends on a number of factors, including the following:

infrastructure development will stimulate economic growth;

– optimization of budget expenses in the future;

– low interest of business representatives to participate in infrastructure development projects;

– high level of wear and tear of fixed assets in infrastructure networks and the need to increase overall infrastructure costs.

AGE ESTIMATION OF ADULT THORACIC VERTEBRAES USING 3-DIMENSIONAL GEOMETRIC MORPHOMETRIC APPROACH: A SYSTEMATIC REVIEW

Mohd Farid ABDUL RAHMAN[1], Dr. Nadiawati ABDUL RAZAK[2*], Dr. Aspalilah Alias[3,4,5]

[1]National Defence University of Malaysia, Kem Sungai Besi, 57000, Kuala Lumpur, Malaysia

[2] Unit of Forensic Medicine, Faculty of Medicine and Defence Health, National Defence University of Malaysia, Kem Sungai Besi, 57000, Kuala Lumpur, Malaysia

ORCİD ID: 0000-0002-7075-7848

[3]Department of Basic Sciences, Faculty of Dentistry, Universiti Sains Islam Malaysia, Kuala Lumpur

[4]Department of Forensic Odontology, Faculty of Dental Medicine Universitas Airlangga - Indonesia

[5]Centre of Research for Fiqh Forensics and Judiciary (CFORSJ), Institut Sains Islam (ISI), Universiti Sains Islam Malaysia

Corresponding author: *nadiawati@upnm.edu.my*

ABSTRACT

Introduction: Age assessment plays a vital role in forensic anthropology by helping to identify unknown persons in medico-legal. Spinal structures have developed a level of sensitivity or responsiveness, whereas conventional approaches concentrate on cranial and dental traits. Age-related changes in the thoracic vertebrae can be used as accurate markers of chronological age. However, accuracy and repeatability are frequently lacking in traditional evaluation techniques. **Method:** A new, quantitative method for analysing vertebral morphology for more precise age assessment is offered by combining three-dimensional (3D) geometric morphometric (GM) approaches. This work uses 3D geometric morphometrics to investigate age-related morphological changes in thoracic vertebrae. To identify form variations among age groups, a collection of vertebrae bones CT scans will be analysed using landmark-based geometric morphometric approaches. The correlation between the morphology of the vertebral bones and age will be determined using statistical shape analysis and multivariate regression models. **Discussion:** By reducing observer bias and offering consistent measures, 3D imaging and morphometric methods enhance the objectivity and repeatability of age estimates. This method is helpful in forensic identification as machine learning algorithms may also improve predicted accuracy. **Conclusion**: This study aims to develop a consistent, repeatable technique for estimating age using the thoracic vertebrae. This study aims to strengthen forensic identification procedures in medico-legal contexts by combining 3D geometric morphometrics with sophisticated statistical modelling to increase forensic age estimation's precision, dependability, and applicability, especially in incomplete remains.

Keywords: age estimation, 3D geometric morphometric, thoracic vertebrae.

MORPHOMETRIC ANALYSIS OF FACIAL SOFT TISSUE THICKNESS FROM CT SCAN FOR AGE ESTIMATION IN MALAYSIA

Muhammad Faiz Mohd Fauad, Universiti Sains Islam Malaysia, Faculty of Medicine and Healthcare, Department of Medical Sciences 1, Nilai, Malaysia
0000-0001-8858-997X:, drfaizfauad@usim.edu.my.

Aspalilah Alias, Universiti Sains Islam Malaysia, Faculty of Dentistry, Department of Basic Sciences, Kuala Lumpur, Malaysia*
0000-0002-8062-6446;, draspa76@usim.edu.my

Ker Woon Choy, Universiti Teknologi MARA, Department of Anatomy, Sungai Buloh, Malaysia
0000-0002-8432-9035:, choykerwoon@uitm.edu.my

Helmi Hadi, Universiti Sains Malaysia, Faculty of Health Sciences, Forensic Science Unit, Kota Bharu, Malaysia
0000-0002-3225-8327:, helmi_mhp@usm.my

**Corresponding Author*
Associate Professor Dr. Aspalilah Alias
draspa76@usim.edu.my

ABSTRACT

The establishment of human identity requires various methods for precise outcomes. The facial recognition from facial soft tissue thickness (FSTT) is one of the methods for identification. FSTT involves the measurement of the distance between skin and bone tissue. However, the FSTT data based on different age groups in Southeast Asia are limited and not comprehensively discussed. The present study aimed to investigate the FSTT differences among the Malaysian samples, using digitalized head and neck computed tomography (CT) scans. This was a cross-sectional study design that involved a total of 208 male patients selected by systematic random sampling. They were divided into four different age groups: 1) 18-30, 2) 31-40, 3) 41-50, and 4) 51-65 years old. Three landmarks namely upper lip, mid-philtrum, and subnasale were selected for measurement. The measurement was done using a measuring tool in 3D-Slicer software and analysed by SPSS software. All three landmarks showed significant differences among different age groups namely, upper lip ($F = 15.43$, $p = 0.032$), mid philtrum $F= 23.61$, $p = 0.036$), and subnasale ($F= 18.75$, $p < 0.001$). Further post-hoc Bonferroni analysis revealed significant findings between age groups at most of the landmarks. The present study provided a database of FSTT variation among the Malaysian population that could facilitate in enhancing forensic identification in Malaysia. The findings also could be further applied in producing reproducible and non-invasive techniques for FSTT measurement and embedded with artificial intelligence to develop quick human identification software.

Keywords: Facial soft tissue thickness (FSTT), Age, Variation, Malaysian.

DİGİTAL FORENSİCS: SMARTER SOLUTİONS FOR MASS DİSASTER VİCTİM MANAGEMENT

Nadiawati ABDUL RAZAK[1*], Aspalilah Alias[2,3,4]

[1] Unit of Forensic Medicine, Faculty of Medicine and Defence Health, National Defence University of Malaysia, Kem Sungai Besi, 57000, Kuala Lumpur, Malaysia
ORCİD ID: 0000-0002-7075-7848
[2]Department of Basic Sciences, Faculty of Dentistry, Universiti Sains Islam Malaysia, Kuala Lumpur
[3]Department of Forensic Odontology, Faculty of Dental Medicine Universitas Airlangga - Indonesia
[4]Centre of Research for Fiqh Forensics and Judiciary (CFORSJ), Institut Sains Islam (ISI), Universiti Sains Islam Malaysia
Corresponding author: *nadiawati@upnm.edu.my*

ABSTRACT

Introduction: The identification of deceased individuals involved in mass disasters is a crucial process to ensure the proper handover of remains to their next of kin for burial arrangements according to their respective religions. To date, the process of recording information related to the identification of bodies still relies on outdated manual methods. This antiquated approach hampers the quick and efficient dissemination of information between healthcare workers and rescue personnel, such as police officers, across the country. Additionally, the storage of forms in record units is less secure than digital storage methods. **Method:** The Forensic Data Management System for identifying bodies in mass disasters proposed to address these issues, focusing on the digital input and storage of data. The development of this system uses the spiral methodology, which consists of four phases: planning, risk analysis, development, and evaluation. This methodology is essential for the project development process to proceed as expected. **Discussion:** Security features embedded in this system, such as identity verification for involved personnel, where only registered staff with credentials stored in the database access the system's information. **Conclusion:** This system can assist rescue personnel, such as medical and police officers, in managing related reports more securely, quickly, productively, and efficiently.

Keywords: artificial intelligence, mass disaster, secure storage

COMPETITION AND CUSTOMER SATISFACTION IN AZERBAIJAN'S DIGITAL SERVICES MARKET

*Sabina Musavi**
Azerbaijan State University of Economics
International Magistrate And Doctorate Center (IMDC)
Baku, Azerbaijan
ORCID ID: 0000-0002-3102-1889
E-mail: sabina-musavi@unec.edu.az

*Magsud Mirzayev***
Azerbaijan State University of Economics
Faculty of Economics of the Turkic World
Baku, Azerbaijan
ORCID ID: 0000-0002-0369-3522
E-mail: magsud-mirzeyev@unec.edu.az

ABSTRACT

This study investigates the dynamic relationship between competition and customer satisfaction in Azerbaijan's growing digital services market, encompassing telecommunications, internet services, mobile applications, and e-commerce platforms. In recent years, the digital sector in Azerbaijan has undergone a significant transformation driven by technological developments and government initiatives aimed at promoting innovation and connectivity. As competition intensifies, service providers are innovating to improve their offerings, enhance customer experience, and capture market share.

This study combines quantitative data collected from users with qualitative insights from industry reports and expert opinions to identify the key factors influencing customer satisfaction. The analysis highlights several critical aspects of competition, including service quality, pricing strategies, customer support, and technological innovation. While increased competition typically encourages enhanced service delivery and customer-centric business models, it can also lead to price wars and market saturation, potentially reducing service reliability and consistency.

The findings emphasize that sustainable customer satisfaction requires a balanced approach to competition, where digital service providers prioritize long-term value creation alongside market differentiation strategies. The study concludes with practical recommendations focused on fostering fair competition, promoting innovation, and ensuring high service standards across the digital ecosystem for industry stakeholders and policymakers in Azerbaijan.

Keywords: Digital Services, Competition, Customer Satisfaction
JEL Codes: L86, D40, O33