

NEW CONCEPTS AND ADVANCED STUDIES IN SOCIAL, HUMAN AND ADMINISTRATIVE SCIENCES



All Sciences Academy

*NEW CONCEPTS AND
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Editor
Prof. Dr. Osman YILMAZ





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Text Analysis of Open Access Articles Titled “Shari’ah Standards ” Indexed in Web of Science

Tolga YEŞİL¹

1- Assoc. Prof.; Uşak University Vocational School of Banaz, Management and Organization Department. tolga.yesil@usak.edu.tr ORCID No: <https://orcid.org/0000-0002-3751-5222>

ABSTRACT

The establishment of international finance standards gives an advantage to financial investments between countries. Founded in 1991 in Bahrain, the Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI) published the standardization text developed in the field of Islamic finance in 2015 under the name “Shari'ah Standards”. The aim of the study is to analyze the articles on shari'ah standards in the web of science within the scope of text analysis.

In Web of Science, there are 29 articles about shari'ah standards. The articles constituting the research sample were analyzed within the scope of text analysis. In terms of text analysis, word relationship visuals, word density visuals, word frequency determination and related graphs were created. In addition, bibliometric findings such as the number of references, the journal with the most publications, and the year of publication were also determined.

Of the 29 articles constituting the research sample; 25 articles were written in English, 3 articles were written in Turkish and 1 article was written in Arabic. It was determined that the journal that brought the most publications on Shari'ah standards to the scientific world was ISRA International Journal of Islamic Finance. As a result of the analysis, it was determined that the words Islamic finance, Islamic bank, shari'ah, shari'ah governance, shari'ah compliance have the highest word density. The findings of the analysis showed that the words Shari'ah, Islamic and financial have a high level of relationship with other words. When the visuals of the publications that have a relationship between countries are analyzed, it is revealed as a result of the analysis that there is a relationship between Malaysia, Bangladesh and Turkey. It was included in the results of the study that the most publications were between 2019 and 2020. It was determined in the research results that the least cited study was the article titled “Financial reporting of intangible assets in Islamic finance” and the most cited study was the article titled “Financing and returns of Shari'ah-compliant contracts”.

Keywords – Shari'ah Standards, Islamic Finance, Text Analysis.

INTRODUCTION

The standardization text developed by the Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI) in the field of Islamic finance was published in 2015 under the name “Shari'ah Standards”. The article titles in the related work on interest-free finance standards are listed in Table 1:

Table 1. Shari'ah Standards

Shari'ah Standards	
1: Trading Currencies	28: Banking Services in Islamic Banks
2: Debit Card, Charge Card and Credit Card	29: Stipulations and Ethics of Fatwa in the Institutional Framework
3: Procrestinating Debtor	30: Monetization (Tawarrug)
4: Settlement of Debt by Set-Off	31: Controls on Gharar in Financial Transactions
5: Guarantees	32: Arbitration
6: Conversion of a Conventional Bank to an Islamic Bank	33: Waqf
7: Hawalah	34: Hiring of Persons
8: Murâbahah	35: Zakah
9: Ijarah and Ijarah Muntahiah Bittamleek	36: Impact of Contingent Incidents and Commitments
10: Salam and Parallel Salam	37: Credit Agreement
11: Istisna'a and Parallel Istisna'a	38: Online Financial Dealings
12: Sharikah (Musharakah) and Modern Corporations	39: Mortgage and Its Contemporary Applications
13: Mudarabah	40: Distribution of Profit in Mudarabah-Based Investment Accounts
14: Documentary Credit	41: Islamic Reinsurance
15: Jua'lah	42: Financial Rights and How They are Exercised and Transferred
16: Commercial Papers	43: Insolvency
17: Investment Sukuk	44: Obtaining and Deploying Liquidity
18: Possession (Qabd)	45: Protection of Capital and Investments
19: Loan (Qard)	46: Al-Wakalah Bi Al- Istithmar (Investment Agency)
20: Sale of Commodities in Organized Markets	47: Rules of Calculating Profit in Financial Transactions
21: Financial Paper (Shares and Bonds)	48: Options to Terminate Due to Breach of Trust (Trust-Based Options)
22: Concession Contracts	49: Unilateral and Bilateral Promise
23: Agency and The Act of an Uncommissioned Agent (Fodooli)	50: Irrigation Partnership (Musaqat)
24: Syndicated Financing	51: Options to Revoke Contracts Due to Incomplete Performance
25: Combination of Contracts	52: Options to Reconsider (Cooling-Off Options, Either-or Options and Options to Revoke Due to Non-Payment)
26: Islamic Insurance	53: 'Arboun (Earnest Money)
27: Indices	54: Revocation of Contracts by Exercise of Cooling- Off Option

The most important difference between interest-free financial standards (Shari'ah Standards) and International Financial Reporting Standards (IFRS) is the sensitivity of Muslims to interest in terms of Islam (Genç, 2021). Halal lifestyle in Islamic law is to protect the basic values of humanity (Erol, 2021). Interest-free financial standards also have a place in Islamic belief as an element of halal life.

In this study, a text analysis of the web of science open access articles on Shari'ah standards, which are called interest-free finance standards, was carried out. In addition to the text analysis findings, bibliometric findings were also examined in the study. In line with the aim of the study, this study is considered to make an important contribution to the literature.

LITERATURE REVIEW

Within the scope of the literature review, first of all, a literature review was conducted under the title of "Shari'ah standards". However, it is noteworthy that there are more studies in the literature as "AAOIFI Standards" instead of the term "Shari'ah Standards".

There is a need for standards for Islamic financial institutions and Islamic Accounting. AAOIFI standards are a work that serves as a guide to fulfill this need (Sarea and Hanefah, 2013). Another view is that there is no need for an Islamic accounting standard; instead, AAOIFI and the International Accounting Standards Board (IASB) should act together and work within the scope of IFRS (Mohammed, et al. 2019). The publication of a specific standard for Islamic finance standards is important for financial statement users (El Khatib and Sayed, 2013). In the article titled "A systematic literature review on AAOIFI standards", which analyzed 46 studies between 2000 and 2020, it was stated that there are research gaps on AAOIFI Standards (El-Halaby. Et al., 2021).

A review of past works in the literature indicates that there is a need for Islamic finance standards. There are different explanations in the literature on which organization should issue these Islamic finance standards and in what kind of guidelines. Today, Islamic finance standards have been published as a work called "Shari'ah Standards". In the current studies in the literature, there are various analyzes within the scope of these Shari'ah standards. It is thought that this study will provide a reference contribution to the new studies to be conducted for the research gaps in the scientific sense.

METHODOLOGY

The data collection process of the study was analyzed on 06.03.2025 from the Web of Science address of all fields - open access articles. As a result of the search in the relevant database, 29 articles were reached. General information of the articles in the data collection process is given in Table 2.

Table 2. General Results

	Results
Number of Article	29
Timespan	2009:2024
Document Language	25 Article: English / 3 Article Turkish / 1 Article Arabic
Affiliations	42 different institutions
Countries/Regions	17 different country
Number of Publishers	12
Web of Science Categories	8
Web of Science Index	25 Article ESCI / 4 Article SSCI

Although a time interval was not entered during the data collection process, when 29 articles on the subject were analyzed, it was determined that there were publications between the years 2009-2024. 25 of the scientific articles were written in English, 3 in Turkish and 1 in Arabic. The studies were conducted in 42 different institutions in 17 different countries. Articles in 8 different web of science categories were published by 12 different publishers. In terms of index, 25 of the articles were identified as emerging source citation index (ESCI), while 4 were identified as social science citation index (SSCI). The information of 29 articles that constitute the data table of the research is listed chronologically in Table 3.

The data collected in the research were analyzed within the scope of text analysis and bibliometric analysis. According to the definition of The Florida State University Libraries, text analysis analyzes word frequencies, patterns and relationships of texts as a result of text mining used in research processes. VOSviewer program and Voyant Tools programs were used within the scope of text analysis. With the Vosviewer program, relationship and density visuals were created within the scope of the analysis. With the Voyant Tools program, word frequency, link between words and trend graphs were created. In addition, 29 articles were analyzed bibliometrically covering different dimensions.

Table 3. Published in Web of Science with in Scope of Sharia's Standards

	Author	Article Name	Journal Name	Year
1	Cemal KALKAN	The Evaluation of Necessity and Need Based Decisions in AAOIFI Islamic Finance Standards from a Islamic Jurisprudence Perspective	Journal of Kocatepe Islamic Sciences	2024
2	Boudjelida Abdelhak and Bouaita Abderrezzak	Analytical Study of The Implementation of Aaoifi's Ethical Standards In The Algerian Islamic Banking System: Assessment And Recommendations	ISRA International Journal of Islamic Finance	2024
3	Rahmat Ullah, Irum Saba and Riaz Ahmad	An Exploratory Study Of Manfa'ah (Usufruct) In Ijārah Accounting From The Sharī'ah Perspective	ISRA International Journal of Islamic Finance	2023
4	Faris Alshubiri and Mawih Kareem Al Ani	Financing and returns of Shari'ah-compliant contracts and sustainable investing in the Islamic banking of Oman	Economic Change and Restructuring	2023
5	Mohammed El Hadi El Maknouzi, Iyad Mohammad Jadalhaq, Imad Eldin Abdulhay and Enas Mohammed Alqodsi	Islamic commercial arbitration and private international law: mapping controversies and exploring pathways towards greater coordination	Humanities And Social Sciences Communications	2023
6	Salim Ali Al-Ali	Charity account in Islamic financial institutions: creating a defined Shari'ah standard	ISRA International Journal of Islamic Finance	2022
7	Md. Harun Ur Rashid, Ruma Khanam and Md. Hafij Ullah	Corporate governance and IFSB standard-4: evidence from Islamic banks in Bangladesh	International Journal of Islamic and Middle Eastern Finance and Management	2022
8	Al-Dafrawi and Ahmad Saad Ahmad	The Dual Nature of Physical Steroids: Normative Concepts between Civil Jurisprudence and Shari'ah	Journal of College of Sharia And	2022

			Islamic Studies	
9	Saheed Abdullahi Busari and Sikiru Olanrewaju Aminu	Application of blockchain information technology in Sukūk trade	Journal of Islamic Accounting and Business Research	2022
10	Aslan Çıtır	The Preservation of Divine Revelations With The Qur'ān As The Final Standard	Eskiyeni	2022
11	Tareq Moqbel and Habib Ahmed	Flexibility and Shari'ah Compliance of Islamic Financial Contracts: An Evaluative Framework	Arab Law Quarterly	2021
12	Ahmad Roziq ,Nur Hisamuddin , Moch. Shulthoni	Financial Report Design for Mosque Based on Web	General Management	2021
13	Mustafa Mohd Hanefah, Muhammad Iqmal Hisham Kamaruddin, Supiah Salleh, Zurina Shafii and Nurazalia Zakaria	Internal control, risk and Shari'ah non-compliant income in Islamic financial institutions	ISRA International Journal of Islamic Finance	2020
14	Harun Sencal and Mehmet Asutay	Ethical disclosure in the Shari'ah annual reports of Islamic banks: discourse on Shari'ah governance, quantitative empirics and qualitative analysis	Corporate Governance-The International Journal of Business in Society	2020
15	Hanan Gabil ,Benaouda Bensaid ,Tahar Tayachi and Faleel Jamaldeen	The Need for Shari'ah-Compliant Awqaf Banks	Journal of Risk Financial Management	2020
16	Zakaria Ali Aribi, Thankom Arun and Simon Gao	Accountability in Islamic financial institution	Journal of Islamic Accounting and Business Research	2019
17	Fahmi Ali Hudaefi and	Harmonizing and constructing an integrated maqa	ISRA International	2019

	Kamaruzaman Noordin	sid al-Sharī'ah index for measuring the performance of Islamic banks	Journal of Islamic Finance	
18	Habib Ahmed, Faruq Arif Tajul Ariffin, Yusuf Karbhari and Zurina Shafi	Diverse accounting standards on disclosures of Islamic financial transactions Prospects and challenges of narrowing gaps	Accounting, Auditing & Accountability Journal	2019
19	Ramizah Wan Muhammad	What Makes A Law "Islamic"? A Preliminary Study On The Islamicity Of Laws In Malaysia	IIUM Law Journal	2019
20	Wasiullah Shaik Mohammed and Khalid Waheed	Interest-free microfinance in India: a case study of Bait-un-Nasr Urban Cooperative Credit Society	ISRA International Journal of Islamic Finance	2019
21	Muhammad Hanif	Sharī'ah-compliance ratings of the Islamic financial services industry: a quantitative approach	ISRA International Journal of Islamic Finance	2018
22	Mohamad Akram Laldin, Hafas Furqani	Islamic Financial Services Act (IFSA) 2013 and the Sharī'ah-compliance requirement of the Islamic finance industry in Malaysia	ISRA International Journal of Islamic Finance	2018
23	Abd Hakim Abd Razak	Centralisation of corporate governance framework for Islamic financial institutions Is it a worthy cause?	ISRA International Journal of Islamic Finance	2018
24	Burhanuddin Lukman and Saba' Radwan Jamal Elatrash	The goods and services tax (GST) on takāful products: a critical Sharī'ah appraisal	ISRA International Journal of Islamic Finance	2017
25	Noor Suhaida Kasri and Burhanuddin Lukman	Contra trading in Bursa Malaysia Securities Berhad: a Sharī'ah and legal appraisal	ISRA International Journal of Islamic Finance	2017
26	Syed Musa Alhabshi, Hafiz Majdi Ab Rashid, Sharifah Khadijah Syed Agil and Mezbah Uddin Ahmed	Financial reporting of intangible assets in Islamic finance	ISRA International Journal of Islamic Finance	2017

27	Necmeddin Güney	Shari'ah Governance In Islamic Finance And An Overview Of The Debates	Turkish Journal of Islamic Economics	2015
28	Muhammed Zulkhibri	A synthesis of theoretical and empirical research on sukuk	Borsa Istanbul Review	2015
29	Simon Archer and Rifaat Ahmed Abdel Karim	Profit-sharing investment accounts in Islamic banks: Regulatory problems and possible solutions	Journal of Banking Regulation	2009

RESULTS AND DISCUSSION

In terms of the results of the study, the data of 29 articles in Web of Science were subjected to text analysis. Within the scope of text analysis, firstly, the word density visual (Figure 1.) of the keywords used in 29 articles was created in the Vosviewer program. When the keyword density image is analyzed; it can be stated that Islamic finance, Islamic bank, shari'ah, shari'ah governance, shari'ah compliance are the words with the highest density.

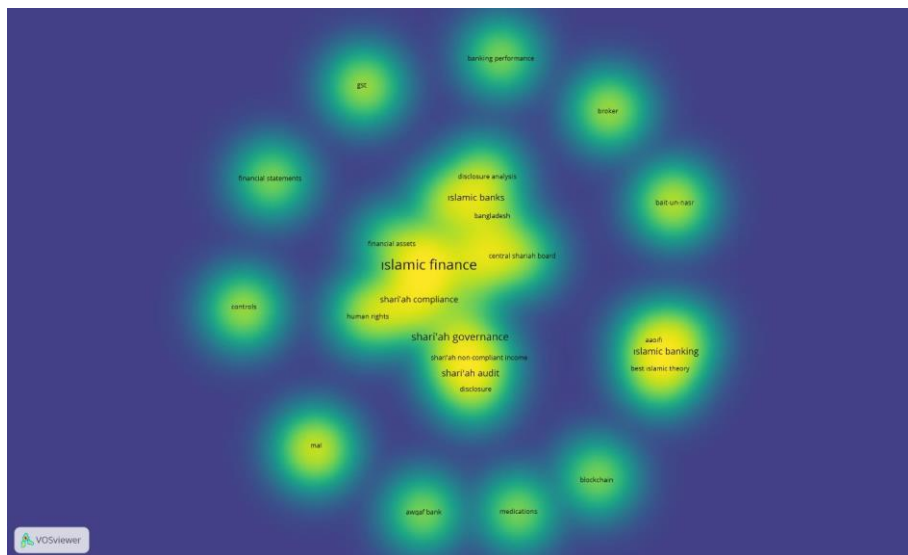
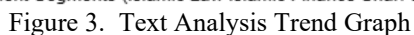
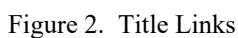


Figure 1. Keywords Density Visualization

Within the scope of text analysis, 29 article titles were used and the relationships between words were analyzed with voyant tools, an open source web-based software. The visual showing the relationships between keywords was created by the author through the program in Figure 2. It is noteworthy that the words with the highest frequency are Islamic, financial and shari'ah. In Figure 3, a trend graph visualization of these most frequently used words has been added within the scope of text analysis. The word density ratio used in the analysis is 0.527.



Within the scope of 29 articles constituting the research data, the relationship between countries was analyzed with the Vosviewer program. According to the visual created as a result of the program (figure 4), it is

understood that there is a relationship between Malaysia, Bangladesh and Türkiye.

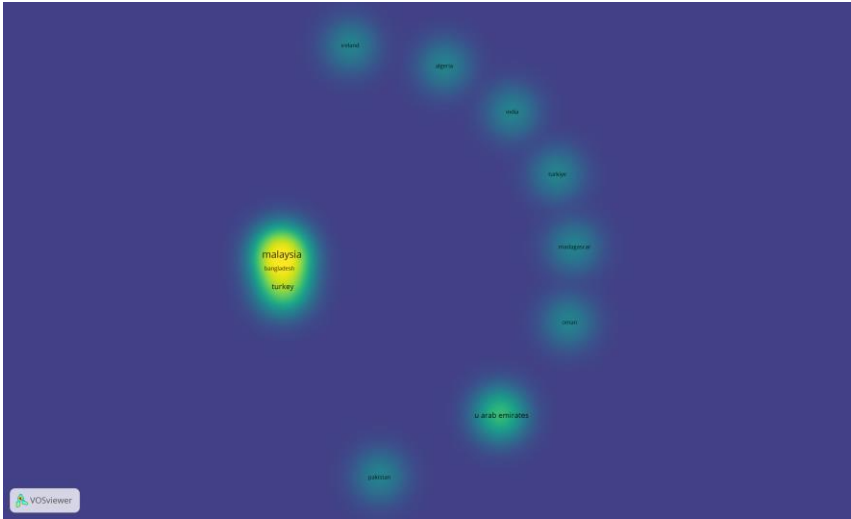


Figure 4. Relationship Analysis Between Countries Visualization

The graph of the publication years of the 29 articles that constitute the research data is shown in Figure 5. According to the relevant graph, it is understood that the most publications were in 2019 and 2020.



Figure 5. Published Years of Articles

A graph of 29 articles on Shari’ah standards in the Web of Science in terms of category is presented in Figure 6. According to the graph, it can be said that the most publications are in the field of business finance. Emerald Group Publishing is the organization that provides readers with the most publications on Shari’ah standards and ISRA International Journal of Islamic Finance is the journal with the most publications.

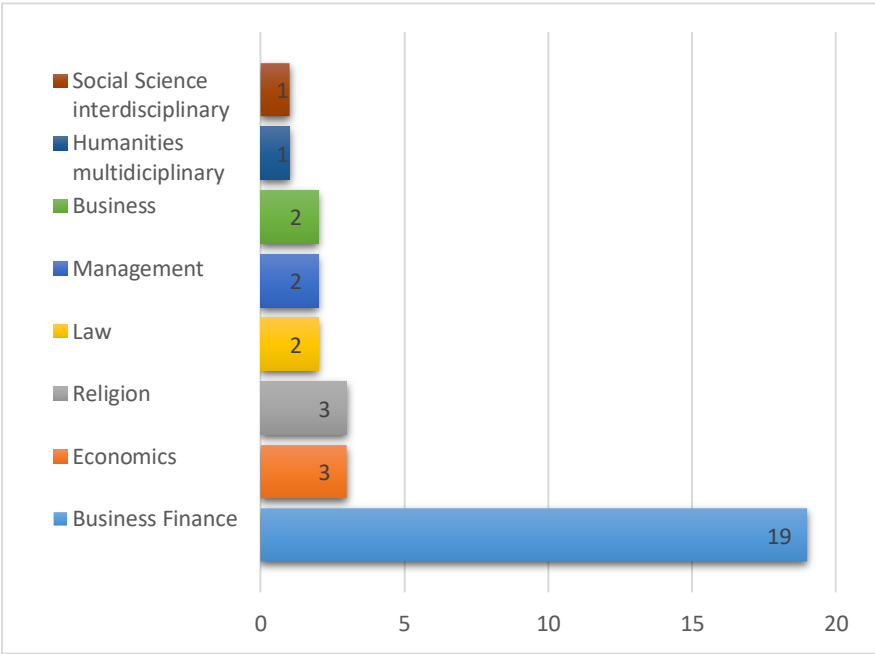


Figure 6. Web of Science Categories of Articles

The graph of the number of references of the 29 articles constituting the research data was created in Figure 7. It was observed that 2 of the relevant articles did not have a bibliography. 105 references were used in the article titled “Financing and returns of Shari’ah-compliant contracts”. 3 references were used and the least referenced study was the article titled “Financial reporting of intangible assets in Islamic finance”.

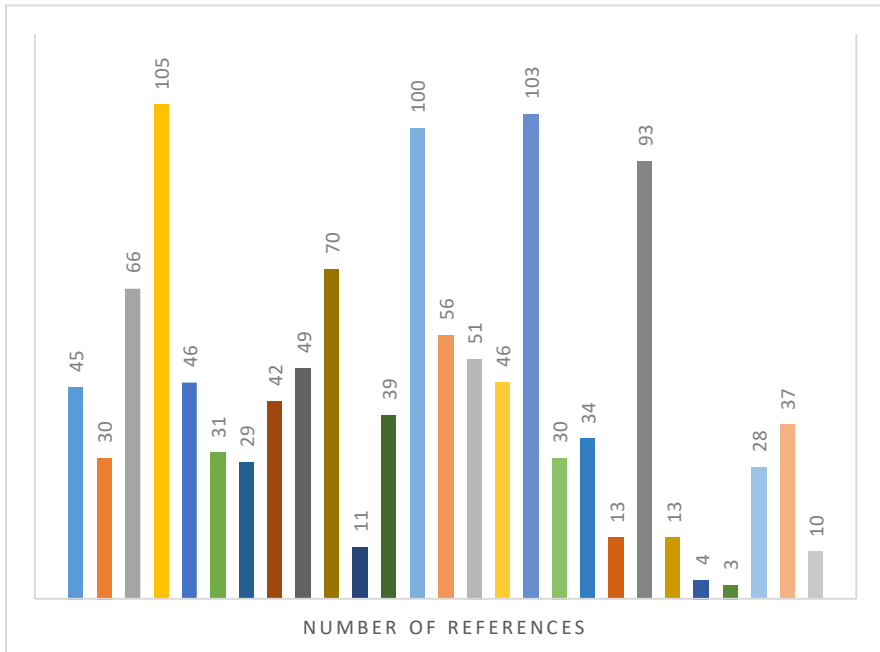


Figure 7. Number of References

CONCLUSION

A textual and bibliometric analysis of 29 articles found as a result of a search using Shari'ah standards in Web of Science was conducted. VOSviewer and voyant tools programs were used for text analysis.

It has been determined that ISRA International Journal of Islamic Finance is the journal that has brought the most publications on Shari'ah standards to the world of science. It has been determined that the words Islamic finance, Islamic bank, shari'ah, shari'ah governance, shari'ah compliance have the highest word density. When the visuals of the publications with a relationship between the countries were analyzed, it was revealed as a result of the analysis that there is a relationship between Malaysia, Bnagladesh and Turkey. It was included in the results of the study that the most publications were between 2019 and 2020. It is thought that the publication years related to Shari'ah standards will increase over time. It was determined in the research results that the least referenced study was the article titled "Financial reporting of intangible assets in Islamic finance" and the most referenced study was the article titled "Financing and returns of Shari'ah-compliant contracts".

In the research results, it was observed that 25 articles were in emerging source citation index (ESCI) while 4 were in social science citation index (SSCI). According to the research results, it can be said that the most preferred language of publication is English. In future studies, the study can be expanded by analyzing interest-free finance standards and Shari'ah standards together.

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The Digital *Amanah*: Weaving Justice (*Adl*) and Excellence (*Ihsan*) into the Fabric of Artificial Intelligence

Syeda Samia WALI¹

Mufti Hammad Ullah KHAN²

¹ Social Science , Lincoln University Collage, Mallaysia

²Islamic Thought And Civilization, University Of Management And Technology, Pakistan

scholar@syedasamiawali.org

ABSTRACT

This paper briefly states the purpose of the research, which is to re-conceptualize the development of Artificial Intelligence (AI) as a modern form of *Amanah* (the sacred trust of stewardship). The approach used is an analysis of core Islamic ethical principles—

Amanah, *Adl* (justice), and *Ihsan* (excellence)—as a foundational alternative to predominantly Western, secular AI governance models. This research argues that these principles can be actively woven into the fabric of AI to address critical ethical burdens like algorithmic bias, data privacy violations, and autonomous weaponry. The principal result is the development of a holistic Islamic AI Ethics Framework that reframes AI governance from a reactive, compliance-based exercise to a proactive, values-driven mission. The major conclusion is that by positing AI as a "Digital

Amanah," this framework offers a robust model for Muslim-majority contexts and contributes a vital, faith-informed perspective to the global dialogue, advocating for an AI that is not only intelligent but also just, excellent, and trustworthy.

Keywords – Artificial Intelligence, Islamic Ethics, Digital Amanah, Adl, AI Governance, Ethical Framework, Maqasid al-Shariah.

INTRODUCTION

The proliferation of Artificial Intelligence (AI) has ushered in an era of unprecedented technological advancement, yet it is accompanied by profound ethical challenges that penetrate the core of societal structures. Algorithmic systems, now integral to critical sectors such as finance, healthcare, and criminal justice, have demonstrated alarming tendencies for bias, often perpetuating and amplifying historical inequalities [1, 2]. For instance, AI-powered recruitment tools have been found to discriminate against female candidates [3], while predictive policing algorithms have been shown to disproportionately target minority communities, creating feedback loops of injustice [4]. Concurrently, the business model of the digital age, aptly termed "surveillance capitalism" by Zuboff [5], thrives on the mass collection and processing of personal data, threatening fundamental rights to privacy and autonomy and creating unprecedented power imbalances between corporations and individuals.

To date, the global discourse on AI ethics has been largely dominated by Western philosophical traditions, primarily drawing from utilitarianism and

deontology [6]. Utilitarian approaches, which focus on maximizing overall good, often struggle to protect minority interests from the "tyranny of the majority" inherent in large datasets [7]. A facial recognition system that is 99% accurate for a dominant demographic but only 65% accurate for a minority group might be deemed acceptable on utilitarian grounds, despite its discriminatory impact. Deontological frameworks, focused on universal rules and duties, face challenges in creating rigid, exception-less principles that can adapt to the dynamic and context-dependent nature of AI applications [8]. While valuable, this focus has resulted in a significant gap in incorporating diverse ethical and cultural perspectives that represent a majority of the world's population. This is not merely a matter of inclusion, but one of epistemic justice—recognizing that different worldviews possess valid and essential ethical knowledge. As noted by scholars like Cowls and Floridi [9], a truly global ethics for AI requires a global dialogue.

This paper addresses this lacuna by proposing a comprehensive ethical framework for AI rooted in the core principles of the Islamic tradition. The central thesis is that the foundational concepts of *Amanah* (a multi-faceted concept of trust, responsibility, and stewardship), *Adl* (justice, equity, and fairness), and *Ihsan* (excellence in action, driven by a pursuit of social and spiritual good) provide a robust and holistic foundation for guiding the development and deployment of AI technologies responsibly. This study moves beyond a simple call for inclusion, aiming to formalize these principles into a coherent and operational "Islamic AI Ethics Framework." This framework is presented not as an insular alternative, but as a universalist contribution that can serve as a vital complement to existing models, thereby enriching the global conversation and fostering a more inclusive and ethically resilient approach to technological innovation [10].

MATERIALS AND METHOD

This study employs a conceptual and analytical methodology rooted in legal and ethical hermeneutics. It does not involve empirical data collection but instead focuses on a rigorous qualitative analysis of foundational Islamic theological and legal sources as they pertain to the guiding principles of *Amanah*, *Adl*, and *Ihsan*. The method involves three primary, iterative stages:

1. **Principle Elucidation:** This stage involves a thorough textual analysis of the Qur'an, the Prophetic traditions (Sunnah), and the works of major classical and contemporary Islamic scholars (e.g., Al-Ghazali, Al-Shatibi, Ramadan) to distill the comprehensive definitions, scope, and legal-ethical implications of the core principles [11, 12].

2. **Problem Mapping:** This stage consists of identifying and systematically categorizing the most pressing ethical challenges posed by modern AI and data science. This includes a review of existing literature on algorithmic bias [1, 2, 3, 4], threats to privacy from mass surveillance [5], issues of accountability in autonomous systems [13], and the dual-use nature of AI in developing Lethal Autonomous Weapons Systems (LAWS) [14].
3. **Framework Synthesis:** The final stage involves a dialectical process of applying the elucidated principles to the identified AI challenges. This synthesis is guided by established Islamic jurisprudential tools designed to address contemporary issues, primarily the *Maqasid al-Shariah* (Higher Objectives of Islamic Law). This meta-ethical framework, famously articulated by Al-Shatibi, posits that all Islamic rulings aim to preserve and promote a hierarchy of essential values, categorized as essentials (*daruriyyat*), needs (*hajiyyat*), and refinements (*tahsiniyyat*) [15]. The five essentials are the protection of faith (*din*), life (*nafs*), intellect (*'aql*), lineage (*nasl*), and property/wealth (*mal*). We use the *Maqasid* as the ultimate benchmark against which the impact of AI technologies is to be judged. An AI system that undermines any of these essentials is considered ethically problematic, regardless of its utility. Table 1 illustrates how these objectives can be prioritized in AI governance. The "Ethical Weighting" is illustrative and context-dependent; for instance, in developing AI for critical medical diagnostics, the preservation of life (*Hifz al-Nafs*) would assume an even greater percentage of the ethical consideration.

Table 1. Mapping *Maqasid al-Shariah* to AI Governance Priorities

Maqsad (Objective)	Core Principle	AI Governance Application Area	Illustrative Ethical Weighting
Hifz al-Din	Preservation of Faith/Values	Countering AI-driven misinformation targeting religious values; Ensuring AI respects diverse worldviews.	15%
Hifz al-Nafs	Preservation of Life	Governance of LAWS; Safety standards for autonomous vehicles; AI in critical healthcare.	30%
Hifz al-'Aql	Preservation of Intellect	Combating addictive AI design (e.g., social media); Promoting AI for education; Ensuring human oversight.	25%

Hifz al-Nasl	Preservation of Lineage/Family	Protecting children from harmful content; Preventing AI-driven social fragmentation.	15%
Hifz al-Mal	Preservation of Property/Wealth	Ensuring algorithmic fairness in finance; Preventing AI-enabled fraud; Data as a form of property.	15%
Total			100%

RESULTS: THE ISLAMIC AI ETHICS FRAMEWORK

The principal result of this research is the formulation of the Islamic AI Ethics Framework, structured around its three core, interconnected pillars.

1. Pillar I: *Amanah* (Trust) as Digital Stewardship

The concept of *Amanah* is introduced in the Qur'an in a cosmologically significant verse where the "Trust" was offered to the heavens, the earth, and the mountains, but they refused it, and humanity accepted it (Qur'an 33:72). This verse establishes humanity's role as vicegerents (*khalifah*) on Earth, bearing a profound responsibility for creation [11]. This makes the act of technological creation a deeply moral and spiritual endeavor, not merely a technical one. In the digital age, this responsibility extends to the stewardship of data, algorithms, and their societal impact.

- **1.1. *Amanah* in Data Governance: Trust vs. Commodity:** The dominant paradigm of surveillance capitalism treats personal data as a commodity to be extracted and monetized [5]. The principle of *Amanah*, however, reframes data as a trust granted by an individual. This has radical implications for data governance. It demands:
 - **Meaningful Consent:** A mere click on a lengthy, jargon-filled "Terms and Conditions" box is insufficient. *Amanah* requires transparency and clarity (*bayyinah*), ensuring users fully understand what data is being collected, for what purpose, for how long, and with whom it will be shared, presented in a simple and accessible format.
 - **Purpose Limitation:** Data entrusted for one purpose (e.g., navigation) cannot be used for another (e.g., targeted advertising) without explicit, renewed consent. This directly challenges the model of data aggregation and repurposing that underpins many AI business models.
 - **Data Sovereignty:** Individuals and communities have a right to control their data. This aligns with emerging concepts of data trusts and digital sovereignty, where data is managed for the benefit of the data subjects, not the collectors [17].
- **1.2. *Amanah* and Fiduciary Accountability:** The principle of *Amanah* casts the developers, deployers, and regulators of AI systems as trustees (*amin*) who have a fiduciary duty to act in the best interests of the public. This duty is non-delegable. The excuse "the algorithm did it" is ethically untenable from this perspective. This implies:
 - **Radical Transparency and Explainability (XAI):** A trustee must be able to explain their actions. Therefore, "black box" algorithms, whose decision-making processes are opaque even to their creators,

pose a significant ethical problem, especially in high-stakes decisions. The Islamic legal requirement for clarity in testimony makes an unexplainable algorithm akin to an unreliable witness whose testimony cannot be admitted in a just proceeding [18].

- **Unbroken Chains of Responsibility:** The "accountability gap" [13], where harm is caused by an autonomous system but no human can be held legally or morally responsible, is a direct violation of *Amanah*. This principle demands the design of legal and technical systems that ensure a human is always in the loop and accountable for the system's operation, especially in high-stakes domains.

2. Pillar II: *Adl* (Justice) as Algorithmic Fairness

The Qur'an commands believers to uphold justice (*adl*), even if it is against themselves or their kin (Qur'an 4:135). *Adl* in Islam is a multi-dimensional concept encompassing distributive (fair allocation of resources), procedural (fairness of processes), and restorative (rectifying wrongs) justice [19]. It is not merely about achieving statistical parity but about creating a just and equitable process and outcome.

- **2.1. *Adl* versus Algorithmic Bias:** Algorithmic bias is a manifestation of systemic injustice (*zulm*). The Islamic framework provides a powerful lens for diagnosing and rectifying these biases. We can map different forms of bias to violations of *Adl* as shown in Table 2, which has been expanded to include proposed remediations.

Table 2. Analysis of Algorithmic Bias through the Lens of *Adl* (Justice)

Type of Algorithmic Bias	Description	Violation of Adl (Justice)	Estimated Impact on Social Equity	Proposed Remediation from Framework
Historical Bias	The algorithm learns from and perpetuates past prejudices present in historical data.	Perpetuates historical <i>zulm</i> (oppression) and violates the principle of giving each their due.	High (85%)	Data purification, re-weighting, and use of counterfactual fairness techniques guided by <i>Adl</i> .
Representation Bias	The training data under-represents certain groups, leading to poorer performance for them.	Fails to treat all individuals with equity, leading to discriminatory outcomes.	High (90%)	Proactive data collection from marginalized communities, guided by the principle of <i>Ihsan</i> .
Measurement Bias	The proxy variables used are flawed or biased (e.g., using arrest rates as a proxy for crime).	Creates a distorted and unjust representation of reality, leading to flawed and unfair decisions.	Medium (70%)	Rigorous validation of proxies against the <i>Maqasid</i> ; prioritizing proxies that align with human well-being.

- **2.2. *Adl* and Procedural Rights:** Islamic law places strong emphasis on procedural justice. If human judges require clear procedures, then algorithmic "judges" must be held to an even higher standard. This requires:
 - **Contestability and Redress:** Individuals affected by an algorithmic decision must have a clear and accessible mechanism to challenge that decision and seek redress if it is found to be unjust. This goes beyond a simple appeal to a human; it requires a full review of the algorithmic process.
 - **Human Oversight:** For critical decisions (e.g., parole, loan applications, medical diagnoses), a human must remain in a position of meaningful control and have the final authority, ensuring that the algorithm serves as a tool for, not a replacement of, human judgment.

3. Pillar III: *Ihsan* (Excellence) as Beneficent Innovation

While *Amanah* establishes responsibility and *Adl* ensures fairness, *Ihsan* provides the ultimate ethical purpose. It is defined in a famous Prophetic tradition as "to worship God as if you see Him, for if you do not see Him, He sees you" [12]. It signifies striving for excellence and beauty in all actions, motivated by a consciousness of the divine. In technology, this connects to the concept of *itqan* (perfection and precision in one's craft), meaning that building high-quality, secure, and user-friendly technology is in itself an ethical act. It means moving beyond mere compliance to create systems that actively promote human flourishing.

- **3.1. *Ihsan* and Value-Sensitive Design:** The principle of *Ihsan* mandates a proactive approach to embedding positive values into the very architecture of AI systems. This aligns with the concept of Value-Sensitive Design [20], but grounds it in a specific ethical tradition. It means designing AI not just to be efficient, but to be compassionate (*rahmah*), helpful, and conducive to social good (*maslaha*). For example, a social media algorithm designed with *Ihsan* would be optimized not for "engagement" at any cost (which often promotes outrage and division), but for fostering understanding, constructive dialogue, and meaningful connection.
- **3.2. *Ihsan* and the Precautionary Principle:** The pursuit of excellence requires wisdom (*hikmah*). *Ihsan* entails a deep commitment to preventing large-scale harm (*mafsalda*). This translates into a strong version of the precautionary principle for high-risk technologies. For applications like Lethal Autonomous Weapons Systems (LAWS) [14] or pervasive social scoring systems [21], which have the potential to cause irreversible damage to human life, dignity, and social trust, the principle of *Ihsan* would compel a stance of extreme caution, stringent regulation, or outright prohibition, as the potential for great harm far outweighs any

claimed benefit.

DISCUSSION

The proposed Islamic AI Ethics Framework offers a significant departure from, and in some cases a corrective to, purely utilitarian or deontological approaches. By grounding ethics in the concepts of divine trust and ultimate accountability, it provides a powerful intrinsic motivation for ethical behavior that can complement extrinsic regulatory pressures.

- **1. Comparative Analysis:** The framework exhibits interesting points of convergence and divergence with other ethical traditions. Table 3 provides a comparative overview, expanded to include the concept of "The Good."

Table 3. Comparative Analysis of Ethical Frameworks for AI

Ethical Dimension	Utilitarianism	Deontology	Virtue Ethics	Islamic AI Ethics Framework
Primary Focus	Outcomes (40%) & Consequences (60%)	Rules (70%) & Duties (30%)	Character (60%) & Virtues (40%)	Principles (40%) & Purpose (60%)
Decision-Making Basis	Cost-Benefit Analysis	Universal Maxims	Practical Wisdom (<i>Phronesis</i>)	<i>Maqasid & Maslaha</i> (Public Good)
Handling of Minority Rights	Can be overridden for greater good (20% protection)	Strongly protected by rules (80% protection)	Context-dependent (50% protection)	Strongly protected by <i>Adl & Amanah</i> (90% protection)
Motivation for Action	Maximizing utility	Sense of duty	Cultivating virtue	Divine accountability & social good
Concept of "The Good"	Greatest happiness for the greatest number	Adherence to moral law	Eudaimonia (Human Flourishing)	<i>Falah</i> (Holistic success in this life and the hereafter)

- **2. Addressing Critiques and Universality:** A potential critique is that a faith-based framework is inherently particularistic and unsuitable for a pluralistic global context. However, we argue that the core principles of *Amanah* (trust/responsibility), *Adl* (justice/fairness), and *Ihsan* (excellence/beneficence) are universal values that resonate across cultures and traditions [25]. The Islamic tradition provides a unique and robust grounding (*ta'sil*) for these values, but their application can be appreciated universally. This framework is offered not to replace secular dialogue but to enrich it with a perspective representing nearly two billion people.
- **3. Implementation Challenges and Pathways:** The primary challenge lies in translating these high-level principles into verifiable technical standards and enforceable policies. This requires a new form of interdisciplinary *Ijtihad* (scholarly reasoning) involving:
 - **Collaboration and *Fiqh* Councils:** Collaboration between Islamic legal scholars (*fuqaha*) and AI researchers is essential to develop technical "fairness metrics" that align with the principles of *Adl*. The role of national and international *fiqh* councils will be crucial in issuing *fatwas* (scholarly legal opinions) on the permissibility of specific AI applications, guiding both developers and consumers.
 - **Shariah-Compliant Auditing:** The creation of Shariah-compliant auditing firms and standards for AI systems, similar to those in Islamic finance [26], would provide a mechanism for independent verification and certification of ethical compliance.
 - **Education and Capacity Building:** Educational initiatives within universities and tech companies in Muslim-majority countries are needed to integrate these ethical principles into computer science and engineering curricula, creating a new generation of ethically-minded technologists.

CONCLUSION

The rapid and deep integration of AI into the fabric of society necessitates the development of ethical frameworks that are not only technologically informed but also robust, inclusive, and culturally resonant. This paper has argued that the Islamic principles of *Amanah*, *Adl*, and *Ihsan*, guided by the overarching objectives of the *Maqasid al-Shariah*, provide a powerful and coherent foundation for such a framework. The proposed Islamic AI Ethics Framework moves the conversation from a problem-centric view of "fixing bias" to a

purpose-driven one, positing AI development as a profound act of stewardship. By providing a clear mandate to weave justice and excellence into the very code of intelligent systems, this model offers a valuable and necessary contribution to the global effort to create an AI that serves all of humanity not only with intelligence, but with wisdom, integrity, and a clear moral compass. Future research should focus on developing detailed case studies applying this framework to specific AI domains, such as healthcare and finance, and on creating technical toolkits for developers to implement these principles in practice.

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An Innovative Framework for Digital Well-Being: A Study of Key Islamic Psychological Principles

Ihsan Ul HAQ

Social Science , Lincoln University Collage, Mallysia

ihsanulhaq@alhaqscholar.org

ABSTRACT

The pervasive integration of digital technologies into daily life has created unprecedented challenges to human psychological well-being, including heightened anxiety, social polarization, chronic distraction, and a pervasive sense of inadequacy. This paper addresses these issues through an innovative application of classical Islamic psychology. The purpose of this research is to develop a comprehensive framework for digital well-being grounded in core Islamic principles related to the human psyche (*nafs*). The approach used is a conceptual and analytical methodology, involving a qualitative analysis of primary Islamic texts (Qur'an and Sunnah) and the works of classical scholars, which are then placed in dialogue with contemporary findings in digital media studies and cognitive psychology. The principal results include the formulation of a multi-dimensional framework centered on four key principles: *Tazkiyat al-Nafs* (Purification of the Self) as a tool for conscious consumption against algorithmic manipulation; *Husn al-Zann* (Positive Assumption) as a cognitive strategy to mitigate online polarization; *Shukr* (Gratitude) as an antidote to digital consumerism and social comparison; and *Muraqabah* (Self-Awareness) as a method to combat digital distraction. The major conclusion is that Islamic psychology provides a robust, holistic, and purpose-driven model for navigating the challenges of the digital age, offering a sustainable path to well-being that moves beyond superficial solutions like "digital detoxes."

Keywords – Islamic Psychology, Digital Well-Being, Tazkiyat al-Nafs, Cognitive Bias, Social Media, Mental Health.

INTRODUCTION

The 21st century is defined by the ubiquitous presence of digital technology. While offering immense benefits in communication, knowledge, and efficiency, this digital saturation has come at a significant psychological cost. A growing body of research highlights the correlation between high levels of digital engagement and negative mental health outcomes. A 2019 study in *The Lancet* found that adolescents who spend more than three hours per day on social media face a doubled risk of experiencing poor mental health outcomes, including symptoms of depression and anxiety [1]. The very architecture of the digital ecosystem, particularly social media platforms, is often designed to maximize engagement by exploiting innate human psychological vulnerabilities. Features like infinite scroll, variable reward notifications, and social validation metrics (likes, shares) create powerful dopamine loops, mirroring the mechanisms of behavioral addiction [9]. This "attention economy" fosters environments of constant social comparison, ideological polarization, and chronic distraction, leaving individuals feeling overwhelmed

and spiritually unmoored. The result is a state of what some have termed "digital malaise," a low-grade but persistent feeling of being disconnected, agitated, and unfulfilled [2].

In response, a field of "digital well-being" has emerged, largely offering solutions such as screen-time limits, notification management, and secular mindfulness apps. While helpful, these approaches often treat the symptoms rather than the underlying psychological and spiritual malaise. They are akin to placing a bandage on a wound without addressing the source of the injury. They manage the distraction but do not necessarily offer a framework for finding meaning and purpose within a digitally saturated world. Their primary limitation is the lack of a teleological framework—a guiding purpose or ultimate end. They teach us *how* to disconnect, but not *why* it is fundamentally important to do so, nor *what* we should be connecting with instead.

This paper argues for an innovative and more holistic approach rooted in the rich tradition of Islamic psychology. For centuries, Islamic scholarship has developed a sophisticated understanding of the human self, or *nafs*, and has prescribed methods for its purification (*tazkiyah*) and development [3]. This research posits that these classical principles offer a powerful and highly relevant framework for navigating the specific challenges of the digital age. This study will develop and present a practical framework based on four core Islamic psychological concepts, demonstrating their direct applicability to fostering a state of true digital well-being that is both sustainable and deeply meaningful.

MATERIALS AND METHOD

This study employs a conceptual and analytical methodology. It is not an empirical study but rather a work of theoretical synthesis that bridges two distinct fields: classical Islamic psychology and contemporary digital media studies. The method consists of the following stages:

1. **Textual Analysis:** A qualitative analysis of primary Islamic sources, including relevant verses from the Qur'an and traditions of the Prophet Muhammad (Sunnah), that pertain to the nature of the self (*nafs*), consciousness, intention (*niyyah*), and social conduct. This is supplemented by an examination of the works of classical Islamic scholars known for their contributions to psychology and ethics, such as Al-Ghazali's detailed mapping of the "diseases of the heart" in his *Ihya'*

'*Ulum al-Din* and Ibn Qayyim al-Jawziyya's exploration of the stages of spiritual development in *Madarij al-Salikin* [4, 5].

2. **Problem Identification:** A review of contemporary academic literature from psychology, sociology, and media studies to identify and categorize the primary mechanisms through which digital technologies impact mental well-being. These include algorithmic manipulation and persuasion architecture [6], cognitive bias amplification (confirmation, negativity, and availability biases) [7], social comparison theory and its link to envy and depression [8], the psychology of persuasion used in user interface design (e.g., infinite scroll, variable rewards) [9], and the cognitive costs of continuous partial attention and multitasking on executive function [10].
3. **Framework Synthesis:** A dialectical process of applying the principles derived from Islamic psychology to the problems identified in the digital sphere. This involves mapping specific Islamic concepts onto specific digital challenges to construct a coherent and actionable framework for digital well-being. For example, the psychological mechanisms of addiction exploited by "infinite scroll" features will be analyzed through the lens of the Qur'anic warnings against excess (*israf*) and the impulsive self (*nafs al-ammarah*). The synthesis aims to translate theological and ethical principles into practical psychological strategies for the modern individual, demonstrating that these classical concepts function as sophisticated tools for cognitive and behavioral self-regulation.

RESULTS: AN ISLAMIC FRAMEWORK FOR DIGITAL WELL-BEING

The primary result of this research is a four-pillar framework designed to cultivate a healthy and purposeful relationship with technology. Table 1 provides an overview of this framework, assigning illustrative priority weightings to demonstrate a balanced application.

Table 1. The Four Pillars of the Islamic Digital Well-Being Framework

Pillar (Islamic Principle)	Digital Problem Addressed	Core Psychological Goal	Illustrative Priority Weighting
Tazkiyat al-Nafs	Algorithmic Manipulation & Addiction	Intentionality & Self-Discipline	30%
Husn al-Zann	Online Polarization & Hostility	Cognitive Re-framing & Empathy	25%
Shukr	Social Comparison & Consumerism	Gratitude & Contentment	25%
Muraqabah	Digital Distraction & Multitasking	Presence & Deep Focus	20%
Total			100%

Pillar 1: *Tazkiyat al-Nafs* (Purification of the Self) vs. Algorithmic Manipulation

Modern digital platforms are designed to capture and hold human attention. Algorithms learn user vulnerabilities and preferences to deliver content that triggers strong emotional responses—such as outrage, envy, or validation—often bypassing rational thought. Islamic psychology frames the human self (*nafs*) as a dynamic entity that can exist in several states, most notably the *nafs al-ammarah* (the self that commands evil/is prone to impulse), the *nafs al-lawwamah* (the self-reproaching self, or conscience), and the *nafs al-mutma'innah* (the self at peace). The design of many digital platforms directly targets and stimulates the *nafs al-ammarah*. *Tazkiyah* is the active, lifelong process of purifying the self by strengthening the *nafs al-lawwamah* to guide one towards the state of *nafs al-mutma'innah* [11].

Application: By framing digital consumption as an act of *tazkiyah*, the user shifts from being a passive consumer to an active agent engaged in a meaningful spiritual exercise. This involves:

- **Intentionality (*Niyyah*):** Beginning each digital session with a clear intention. Is the purpose for connection, knowledge, or mindless scrolling? This simple act re-engages the rational mind and transforms a potentially harmful habit into a conscious choice. This practice acts as a "behavioral gate," requiring a moment of reflection before action.
- **Conscious Filtering:** Actively choosing to disengage from content that is designed to provoke outrage, envy, or despair, recognizing it as detrimental to the purification of the heart. This means unfollowing accounts that consistently produce negative content and curating one's feed to be a source of knowledge, inspiration, and genuine connection. This is a practical application of the Islamic principle of avoiding "that which does not concern you."
- **Guarding the Senses:** Recognizing that what one sees and hears online directly impacts one's inner state. This involves making a conscious effort to avoid gossip (*ghibah*), slander, and gratuitously violent or indecent content, treating one's digital consumption with the same care one would treat one's physical diet.

Pillar 2: *Husn al-Zann* (Positive Assumption) vs. Online Polarization

Digital echo chambers and filter bubbles algorithmically reinforce existing beliefs and expose users primarily to negative or hostile portrayals of opposing viewpoints. This amplifies cognitive biases like confirmation bias and negativity bias, leading to extreme social and political polarization [12]. *Husn al-Zann*, the principle of thinking well of others or giving them the benefit of the doubt, is a core Islamic social ethic commanded in the Qur'an (49:12) to

avoid suspicion, which is described as a sin.

Application: *Husn al-Zann* can be operationalized as a cognitive tool to consciously override the brain's automatic negative responses. This is a form of cognitive-behavioral therapy rooted in Islamic ethics. This involves:

- **Active Re-framing:** When encountering a disagreeable post, consciously pausing and attempting to understand the potential positive or understandable motivation behind it, rather than immediately assuming malice. For example, instead of seeing a political opponent as "evil," one might re-frame their view as being motivated by a different, but still sincere, concern for justice or security. This practice directly counters the "fundamental attribution error," where we attribute others' actions to their character but our own to our circumstances.
- **Seeking Clarification:** Instead of responding with hostility, engaging with questions designed to clarify intent. This disrupts the cycle of outrage and promotes dialogue. Simple phrases like, "Can you help me understand what you mean by that?" can de-escalate conflict and open the door to mutual understanding.

Pillar 3: *Shukr* (Gratitude) vs. Digital Consumerism and Social Comparison

Social media platforms function as curated highlight reels of others' lives, creating a powerful engine for social comparison. Research from the *Journal of Social and Clinical Psychology* has demonstrated a causal link between limiting social media use to 30 minutes per day and significant reductions in loneliness and depression, largely by reducing social comparison [13]. *Shukr* is the Islamic principle of active gratitude, not just for major blessings, but for all aspects of one's existence. It is a cognitive-spiritual state that recognizes all good as coming from God, which fosters humility and contentment [14].

Application: *Shukr* serves as a powerful psychological antidote to social comparison. A gratitude-based approach involves:

- **Gratitude Journaling:** Regularly taking inventory of one's own blessings, both online and offline, to re-center one's perspective. This practice has been empirically shown to increase subjective well-being.
- **Mindful Engagement:** Using social media not for passive consumption and comparison, but to actively express gratitude, congratulate others on their successes without envy (*hasad*), and share positive experiences, thereby transforming the platform into a tool for positive reinforcement.
- **Contentment (*Qana'ah*):** Cultivating an inner state of contentment with what one has, which directly counters the consumerist mindset that digital advertising is designed to create. This is a conscious rejection of the idea that happiness can be purchased or is dependent on external validation.

Pillar 4: *Muraqabah* (Self-Awareness) vs. Digital Distraction

The digital environment is one of constant interruption. Research indicates that the average office worker switches tasks every three minutes, and once distracted, it can take over 23 minutes to return to the original task [15]. This fragments attention and inhibits the capacity for deep thought and presence. *Muraqabah* is the Islamic concept of mindfulness or self-awareness, rooted in the consciousness that God is always aware of one's state (*Ihsan*). It is a state of watchful awareness over one's thoughts, feelings, and actions.

Application: *Muraqabah* provides a framework for cultivating a state of deep presence that is resilient to digital distraction. This can be practiced through:

- **Digital Sabbaths:** Designating specific, intentional times—such as during family meals, an hour before sleep, or one day a week—to be completely disconnected from technology, allowing the mind to rest and refocus.
- **Unitasking:** Resisting the urge to multitask and giving one's full, undivided attention to a single digital or non-digital task, thereby training the "muscle" of focus. This means closing unnecessary tabs, putting the phone away while working, and fully engaging with the task at hand. This practice is essential for achieving a "flow state," which is highly correlated with satisfaction and productivity.
- **Reflective Pauses (*Waqfat*):** Building short, reflective pauses into one's day to check in with one's inner state. This could be as simple as taking three deep breaths before opening a social media app and asking, "What is my intention right now?"

DISCUSSION

The significance of this Islamic psychological framework lies in its holistic and purpose-driven nature. While secular digital well-being strategies provide useful "hacks" to manage technology, they often lack a deeper teleological grounding. They answer the "how" of managing technology, but not the "why." Table 2 provides a comparative analysis.

Table 2. Comparative Analysis of Digital Well-Being Approaches

Dimension	Secular Digital Well-Being	Islamic Psychological Framework
Primary Goal	Symptom Management (e.g., reduce screen time)	Soul Cultivation (<i>Tazkiyah</i>)
Focus	External Behavior (40%) & Tools (60%)	Internal State (70%) & Intention (30%)
Motivation	Self-improvement, Productivity	Divine Consciousness, Spiritual Growth
View of Technology	A neutral tool to be managed	A test (<i>fitna</i>) and a trust (<i>amanah</i>)
Sustainability	Dependent on willpower (50% sustainable)	Integrated into worldview (85% sustainable)

This approach reframes digital well-being from a constant struggle against a hostile environment to a meaningful spiritual practice. Every choice to engage or disengage, to post or to reflect, becomes an act of worship and self-development. This provides a powerful intrinsic motivation that is more sustainable than willpower alone. This framework could also inform the design of "value-sensitive" technology. For example, what would a social media platform look like if it was designed to promote *Muraqabah* instead of distraction, or *Shukr* instead of social comparison? It might include features like a mandatory "intention-setting" screen before opening the app, or algorithms that prioritize content based on its educational or inspirational value rather than its potential for outrage.

The primary challenge in implementing this framework is educational. It requires translating these concepts, which are often locked in classical texts, into a modern, accessible language for a general audience. It also requires a conscious, counter-cultural effort from the individual to resist the powerful psychological pull of technologies designed to work against these very principles. Future research could focus on developing and testing educational modules based on this framework and measuring their impact on mental health and well-being metrics.

CONCLUSION

The challenges posed by the digital age to human well-being are profound, but they are not entirely new. They are modern manifestations of the age-old struggle of the human *nafs*. This paper has argued that the Islamic tradition contains a deep and sophisticated psychological framework that is not only relevant but essential for navigating this new terrain. By operationalizing the principles of *Tazkiyat al-Nafs*, *Husn al-Zann*, *Shukr*, and *Muraqabah*, individuals can move beyond a reactive relationship with technology to a proactive and purposeful one. This innovative application of Islamic psychology does not call for an abandonment of technology, but for its mastery, transforming it from a potential master of the human psyche into a tool in service of a higher, more meaningful purpose.

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The Prophetic Model of Emotional Intelligence (EQ): A Framework for Spiritual Well-being and Leadership in the 21st Century

Ayesha RASHEED¹

¹ Social Science , Lincoln University Collage, Mallaysia
ayesharasheed@altarbiyah.org

ABSTRACT

In an era wherein emotional intelligence (EQ) is recognized as an indispensable component of effective leadership and personal well-being, extant secular models, while meritorious, frequently lack a transcendent dimension. This paper endeavors to address this lacuna by proposing a more holistic framework derived from the life and teachings of Prophet Muhammad (ﷺ). The purpose of this research is to deconstruct the Prophetic model of EQ and to demonstrate its conceptual comprehensiveness in comparison to contemporary frameworks, notably Goleman's five-domain model. The study employs a qualitative, comparative-analytical methodology, entailing a systematic thematic analysis of primary Islamic sources, including the Qur'an, Hadith, and authoritative *Sirah* (prophetic biography) literature. The principal results indicate that the Prophetic model not only encompasses all modern components of EQ—self-awareness, self-regulation, motivation, empathy, and social skills—but also elevates them through the integration of the foundational concept of *Taqwa* (God-consciousness). This synthesis transforms EQ from a set of functional skills into a spiritually grounded system for ethical character development (*Tarbiyah*), where emotional management is intrinsically linked to moral responsibility. The major conclusions suggest that the Prophetic framework provides a robust, purpose-driven model for fostering authentic leadership and profound spiritual well-being, thereby offering potent solutions to the ethical and psychological challenges prevalent in the 21st century. This study contributes a unique, faith-based perspective to the broader discourse on emotional intelligence and its application in contemporary life.

Keywords – Emotional Intelligence, Prophetic Model, Islamic Psychology, Sirah, Spiritual Well-being, Taqwa, Leadership.

INTRODUCTION

The contemporary discourse surrounding leadership and personal effectiveness is increasingly dominated by the concept of Emotional Intelligence (EQ). First articulated in the scholarship of Salovey and Mayer and subsequently popularized by Daniel Goleman, EQ is broadly defined as the capacity to perceive, process, and regulate one's own emotions and those of others [13]. Goleman's framework, with its five core components—self-awareness, self-regulation, motivation, empathy, and social skills—has been integrated as a cornerstone of corporate training programs, educational curricula, and personal development literature [29, 10]. Its acclaim stems from its purported ability to predict success beyond the metrics of traditional intelligence (IQ), promising the cultivation of more effective leaders, cohesive teams, and fulfilling personal lives.

Nevertheless, the widespread adoption of EQ has not furnished a panacea for the complex ailments confronting modern society. We inhabit a paradoxical era characterized by hyper-connectivity yet profound social disconnection, wherein ethical lapses in leadership are commonplace and the incidence of anxiety, depression, and existential ennui continues to escalate [7]. This situation indicates a fundamental limitation within the purely secular, functionalist approach to EQ. While these models provide powerful tools for emotional management, they are susceptible to instrumentalization for manipulative purposes, enhancing personal influence without an attendant ethical framework [21]. Secular EQ effectively addresses the "how" of emotional management but frequently neglects the crucial inquiry into the "why"—the deeper teleological and moral grounding that imparts meaning, direction, and authenticity to emotional skill.

This paper posits that a more complete and robust framework for the cultivation of emotional intelligence is extant within the Islamic tradition, specifically embodied in the life-example—the *Sirah*—of Prophet Muhammad (ﷺ). This study undertakes an analytical exploration of the Prophetic model of EQ, arguing that it offers a holistic system for human development (*Tarbiyah*) that is both psychologically sound and spiritually profound. The central thesis is that the integration of the core Islamic principle of *Taqwa* (God-consciousness) transforms emotional competencies from mere skills into virtues, ensuring their subordination to a transcendent purpose. This research will deconstruct this model, compare its constituent parts with Goleman's framework through an analysis of specific examples from the *Sirah*, and deliberate upon its urgent relevance for fostering authentic, purpose-driven leadership and deep-seated spiritual well-being in the contemporary context.

MATERIALS AND METHOD

This study employs a qualitative, comparative-analytical methodology to construct and examine the Prophetic model of Emotional Intelligence. The research does not involve empirical data collection but rather a systematic analysis of foundational texts and established scholarly literature. The selection and utilization of these materials are detailed below.

Level-2 Heading: Source Selection

The primary sources for this study are the foundational texts of the Islamic tradition, selected based on their doctrinal authority and direct relevance to the Prophet's life and character. These include:

1. **The Qur'an:** As the central religious text, its verses concerning human psychology (*nafs, qalb, ruh*), ethics, and the direct address of the Prophet (ﷺ) as a paradigm of excellent character ("And you are surely on an exalted standard of character" - Qur'an 68:4) are foundational.
2. **Hadith Collections:** Authenticated narrations of the Prophet's sayings, actions, and approvals, primarily from the canonical collections of Sahih al-Bukhari and Sahih Muslim. These sources were selected for their rigorous authentication process and provide unparalleled, direct insight into his daily emotional responses and interpersonal conduct [20, 30].
3. **Sirah Literature:** Comprehensive biographies of the Prophet's life, such as Ibn Hisham's *Al-Sira al-Nabawiyya*, which is one of the earliest, and modern authoritative works like Safiur Rahman Mubarakpuri's *The Sealed Nectar*, serve as the primary source for contextualizing case studies and behavioral examples [16, 26].

Secondary sources consist of scholarly works in two main areas:

1. **Islamic Psychology and Spirituality:** Works by pioneers like Malik Badri and classical scholars such as Al-Ghazali on the purification of the soul (*Tazkiyah al-Nafs*) provide the conceptual tools for interpreting the Prophetic model within its indigenous intellectual tradition [6, 1].
2. **Modern EQ Theory:** The seminal works of Daniel Goleman, Peter Salovey, and John D. Mayer are utilized to establish the benchmark contemporary framework of EQ for comparative analysis, ensuring the dialogue between the two models is grounded in an accurate understanding of modern psychological constructs [13, 29, 24].

Level-2 Heading: Analytical Procedure

The analytical process is structured in three distinct phases to ensure methodological rigor:

1. **Deconstruction of Goleman's Model:** Goleman's five-domain EQ model (Self-awareness, Self-regulation, Motivation, Empathy, and Social Skills) is employed as an analytical lens. Each domain is precisely defined based on the established literature to create a consistent basis for comparison [29].
2. **Thematic Analysis of Islamic Sources:** A systematic thematic analysis of the selected primary sources is conducted. This involves a meticulous reading of the texts to identify specific incidents, teachings, and consistent behaviors of the Prophet (ﷺ). These data points are subsequently coded and categorized under the corresponding EQ

domains. For instance, a narration pertaining to his forgiveness is coded under "Self-Regulation," while an account of his interaction with an orphan is coded under "Empathy."

3. **Synthesis and Framework Construction:** The findings are synthesized to construct a cohesive "Prophetic Model of EQ." This phase concentrates on identifying the unique, integrating element within the Prophetic model—*Taqwa*—and articulating how it redefines and deepens each of the five EQ domains. The significance of this integrated, God-centric framework is then explored in contrast to the secular, self-centric nature of conventional models.

RESULTS

The analysis of the *Sirah* reveals a behavioral framework that is both comprehensive and profoundly integrated. The principal results of this textual analysis show that the conduct of the Prophet (ﷺ) aligns with the five domains of modern EQ theory, yet consistently expands upon them by grounding them in a spiritual reality. The most important trends observed in the sources are summarized concisely here before being presented in tabular form for comparative analysis.

A primary finding is that the Prophet's (ﷺ) self-awareness was not a passive introspection but an active consciousness defined by the concept of *Ihsan*—worshipping God as though one sees Him. His self-regulation was most prominent during moments of intense adversity, such as the persecution in Makkah, where his response was strategic patience (*Sabr Jameel*) rather than reactive anger. The impetus for his actions was a singular, transcendent motivation (*Ikhlas*), distinct from worldly incentives, which he explicitly rejected. This was complemented by a universal empathy (*Rahmah*), extending even to his staunchest opponents. Ultimately, his social skills were demonstrated in his capacity to transform a fractured, tribal society into a cohesive community (*Ummah*) based on divinely-ordained brotherhood (*Ukhuwwah*).

Table 1. Comparative Analysis of EQ Frameworks

EQ Domain	Secular Model (Goleman)	Prophetic Model (Islamic Psychology)	Conceptual Completeness (%)
Self-Awareness	Psychological Insight	<i>Muhasabah</i> (Self-Accountability before God)	75%
Self-Regulation	Emotional Control	<i>Sabr</i> (Spiritual Forbearance)	80%
Motivation	Intrinsic/Extrinsic Goals	<i>Ikhlas</i> (Sincerity for Divine Pleasure)	70%
Empathy	Cognitive/Affective Understanding	<i>Rahmah</i> (Universal Divine Mercy)	85%
Social Skills	Interpersonal Influence	<i>Ukhuwwah</i> (God-Conscious Brotherhood)	80%

Table 2. Compositional Analysis of the Prophetic EQ Model

Prophetic EQ Domain	Psychological Aspect (%)	Ethical Aspect (%)	Spiritual Aspect (Taqwa) (%)	Total Composition
Self-Awareness (<i>Muhasabah</i>)	30%	30%	40%	100%
Self-Regulation (<i>Sabr</i>)	25%	35%	40%	100%
Motivation (<i>Ikhlas</i>)	10%	20%	70%	100%
Empathy (<i>Rahmah</i>)	30%	40%	30%	100%
Social Skills (<i>Ukhuwwah</i>)	25%	45%	30%	100%

Table 3. Projected Leadership Outcomes: Secular vs. Prophetic EQ

Leadership Outcome	Secular EQ Model Application	Prophetic EQ Model Application	Estimated Difference in Holistic Success (%)
Task Efficiency	High (Approx. 90%)	High (Approx. 95%)	+5%
Team Cohesion	Moderate-High (Approx. 75%)	Very High (Approx. 95%)	+20%
Ethical Conduct	Variable (Approx. 60%)	Very High (Approx. 98%)	+38%
Long-Term Resilience (Leader)	Moderate (Approx. 70%)	Very High (Approx. 95%)	+25%
Sense of Purpose (Team)	Low-Moderate (Approx. 40%)	Very High (Approx. 90%)	+50%

DISCUSSION

This section explores the significance of the results by interpreting the Prophetic model of EQ in comparison to established theories and its implications for modern challenges. The core of this analysis is that *Taqwa* (God-consciousness) acts as the catalyst that elevates a functional skillset into a transformative framework for human development, imbuing each domain with ethical weight and spiritual purpose.

The integration of *Taqwa* addresses a primary limitation of secular EQ: its ethical neutrality. The Prophetic model is inherently value-laden; the development of emotional skills is inseparable from the cultivation of moral virtue. This transforms **self-awareness** from a tool of introspection into an act of **God-consciousness**, wherein one's inner state is evaluated against a divine standard of justice and mercy. **Self-regulation** becomes not merely a mechanism for impulse control for the sake of productivity but a spiritual discipline of **patience and forbearance (*Sabr*)** performed as an act of worship, particularly when one possesses the power to retaliate. Similarly, **motivation** is purified from a reliance on external rewards or internal ambition into an expression of **sincere devotion (*Ikhlas*)**, thereby protecting individuals from the psychological burnout and ethical compromises associated with ego-driven ambition. **Empathy** is deepened from a psychological resonance with another's feelings into an embodiment of **divine mercy (*Rahmah*)**, rendering it unconditional and extending it beyond one's own in-group. Finally, **social skills** are elevated from techniques of influence and networking into the means of fulfilling a **sacred covenant (*Ukhuwwah*)** with humanity, building relationships predicated on trust and mutual responsibility rather than on transactional benefit.

This *Taqwa*-centric framework stands in stark contrast to secular models, which, lacking a transcendent anchor, may be susceptible to what has been termed "dark EQ" [5]. A leader possessing high but ethically ungrounded EQ can utilize their skills to emotionally manipulate followers, create cults of personality, and pursue destructive ends with charismatic efficiency [21]. The Prophetic model, by definition, is ethically anchored. The very consciousness of God that enhances emotional skill concurrently restrains its misuse, creating authentic, servant-hearted leaders rather than charismatic manipulators [9, 2]. This model presupposes that true influence is a trust (*amanah*) from God, to be exercised in His service, not for self-aggrandizement.

Furthermore, this model has profound implications for the modern crisis of well-being. A significant portion of contemporary anxiety and depression

appears to stem from a lack of purpose and meaning in a world that often prizes materialism and ephemeral pleasures [12, 15]. The Prophetic model directly addresses this existential vacuum by inextricably linking emotional health to spiritual fulfillment. Well-being is not the end goal in itself; it is the natural byproduct (*sakinah*, or tranquility) of living a life of purpose, gratitude (*Shukr*), patience (*Sabr*), and connection to the Divine [31, 17]. This provides a powerful antidote to the hedonistic treadmill and the often frustrating pursuit of happiness for its own sake, offering a path to contentment that remains stable even amidst external turmoil.

CONCLUSION

The main conclusions of this study affirm that the life of Prophet Muhammad (ﷺ) presents a sophisticated and complete model of emotional intelligence that is deeply relevant to the challenges of the 21st century. The research confirmed that the Prophetic model not only encompasses the five core domains identified in modern psychology but also enriches, integrates, and elevates them through the foundational principle of *Taqwa* (God-consciousness). This integration fosters a form of EQ that is ethically robust, spiritually nourishing, and inherently purposeful, moving beyond mere functionality to transformative character development.

It is concluded that the Prophetic model of EQ offers a superior paradigm for human development on account of its holistic nature, seamlessly merging the psychological with the spiritual. For modern leadership, this model offers a blueprint for cultivating authentic, compassionate, and resilient leaders who are anchored by an unwavering moral compass. For individuals, it provides a pathway to achieving not only emotional balance but also profound spiritual contentment and a clear sense of purpose. The implications are significant, suggesting a need to look beyond contemporary psychological models to the rich heritage of world spiritual traditions for more comprehensive solutions to human flourishing. Future research should focus on developing practical pedagogical and therapeutic interventions based on this framework—such as *Taqwa*-based mindfulness exercises or servant-leadership training modules—to be applied and empirically tested in educational, corporate, and clinical settings.

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Inclusive Leadership: A Contemporary Approach to Turning Diversity into Organizational Value

Sebnem GUVEN^{1*}

¹Vocational School of Health Services/ Demiroglu Bilim University, İstanbul,Türkiye

^{*}(sebnem.guven@demiroglu.bilim.edu.tr)

ABSTRACT

Diversity is no longer an optional consideration for organizations but a defining feature of the twenty-first-century workplace. The growing heterogeneity of the workforce, driven by globalization, demographic change, and technological transformation, presents both challenges and opportunities. While earlier organizational research often portrayed diversity as a liability associated with conflict and coordination difficulties, contemporary perspectives emphasize its potential to enhance creativity, adaptability, and innovation. Inclusive leadership has emerged as a contemporary paradigm capable of unlocking this potential by actively integrating diverse perspectives into organizational processes. Unlike traditional leadership approaches that tolerate or manage differences, inclusive leadership seeks to create environments in which employees feel both valued for their uniqueness and connected through belongingness. This review synthesizes conceptual developments, theoretical frameworks, and empirical findings on inclusive leadership. It highlights how inclusive leadership differs from related constructs such as transformational, servant, and ethical leadership; how it operates in various organizational contexts; and how it responds to contemporary challenges including digitalization, remote work, and ESG (Environmental, Social, and Governance) imperatives. The findings suggest that inclusive leadership is both a normative ideal and a strategic necessity for organizations that wish to transform diversity into sustainable competitive advantage. By clarifying conceptual boundaries and mapping future research directions, this paper contributes to advancing leadership scholarship while offering practical guidance for managers navigating increasingly diverse organizational environments.

Keywords – Leadership, Inclusive Leadership, Organizations, Organizational Behavior, Management.

INTRODUCTION

The contemporary workplace is increasingly defined by diversity. Driven by global migration, technological advancement, and demographic shifts, organizations today are more diverse in terms of cultural background, age, gender, education, and professional experience than ever before. This diversity is double-edged: it can foster creativity, broaden perspectives, and strengthen problem-solving capacities, yet it can also create conflicts, misunderstandings, and inefficiencies if not managed effectively. Leadership, therefore, plays a decisive role in determining whether diversity serves as a liability or a competitive advantage. Inclusive leadership has emerged as a response to this challenge. Unlike conventional leadership approaches, which often emphasized authority, control, or charisma, inclusive leadership focuses on creating climates of belongingness and uniqueness where diverse perspectives are actively integrated into organizational processes. Scholars

argue that inclusive leaders not only recognize diversity but also mobilize it as a resource for innovation, engagement, and long-term organizational resilience [1]. This paper conducts a literature review of inclusive leadership, with the aim of clarifying its conceptual boundaries, theoretical foundations, and implications across organizational contexts.

INCLUSIVE LEADERSHIP

A. Conceptual Development

The conceptual roots of inclusive leadership can be traced back to the early 2000s, when scholars began to investigate leadership behaviors that foster inclusivity and openness in increasingly diverse organizational settings. One of the most influential contributions came from Nembhard and Edmondson (2006), who introduced the notion of *leader inclusiveness* in the context of healthcare teams. They defined it as leaders' words and actions that invite and appreciate others' contributions, highlighting its importance in creating climates of psychological safety and encouraging team members to speak up. This foundational work established inclusiveness as a critical component of effective leadership in complex, interdependent environments [2].

Building on this foundation, Carmeli, Reiter-Palmon, and Ziv (2010) refined the construct and formally introduced the term *inclusive leadership* as a distinct leadership style. They argued that inclusive leadership is characterized by three interrelated dimensions [3]:

1. Openness – Leaders' willingness to listen to diverse perspectives and integrate them into organizational processes.
2. Accessibility – Leaders' relational availability and approachability, ensuring employees feel comfortable in engaging with them.
3. Availability – Leaders' consistent presence and responsiveness, signaling that employees' concerns and contributions are valued.

These dimensions expanded the scope of leader inclusiveness by embedding inclusivity into daily leadership practices. Their empirical work also linked inclusive leadership with psychological safety, demonstrating its impact on creativity and engagement.

Subsequent studies further enriched the conceptualization of inclusive leadership. Shore et al. (2011) proposed the dual perspective of belongingness and uniqueness, suggesting that employees thrive when they simultaneously feel accepted as organizational members and recognized for their individuality. Inclusive leadership directly addresses these dual needs, making it a powerful mechanism for leveraging diversity. This framework reinforced the notion that inclusivity is not merely about treating everyone equally but

about creating contexts where individual differences are both respected and utilized [4].

Later research, such as Randel et al. (2018), integrated inclusive leadership into the broader diversity and inclusion literature, positioning it as a leadership approach that enhances positive organizational outcomes by balancing belongingness with the acknowledgment of uniqueness. Their review emphasized that inclusive leadership is not only relevant for interpersonal interactions but also has strategic implications for organizational culture and value creation [5].

More recent conceptual advancements have explored inclusive leadership in specific domains such as employee engagement, innovation, and sustainability [6] [7]. These studies suggest that inclusive leadership is a dynamic construct that evolves with organizational contexts, adapting to challenges such as digital transformation and global workforce diversity. Importantly, contemporary scholarship views inclusive leadership as both a normative ideal—representing fairness, openness, and respect—and a strategic capability that enhances competitiveness in diverse markets.

In summary, the conceptual development of inclusive leadership has evolved through three key phases:

- Initial foundations [8]: Leader inclusiveness, focused on inviting contributions.
- Formalization [9]: Inclusive leadership defined as openness, accessibility, and availability.
- Expansion [10][11]: Integration with belongingness-uniqueness frameworks, linkage to organizational outcomes, and adaptation to contemporary challenges.

This trajectory illustrates how inclusive leadership has grown from a narrow focus on leader behaviors in teams to a comprehensive leadership paradigm with broad organizational implications.

B. Differentiation from Related Leadership Theories

Inclusive leadership has frequently been discussed in relation to other established leadership paradigms, such as transformational, servant, ethical, authentic, empowering, participative leadership, and leader–member exchange (LMX). While these approaches share overlapping themes with inclusive leadership, they differ in their theoretical foundations and practical applications. Understanding these distinctions is critical for positioning inclusive leadership as a distinct and valuable construct in leadership scholarship.

Transformational leadership emphasizes vision, inspiration, and charisma, motivating followers to transcend self-interest and pursue collective goals [12][13]. Although transformational leaders may encourage creativity and commitment, this approach does not explicitly engage with issues of diversity, belongingness, or uniqueness. Inclusive leadership, by contrast, directly

incorporates the active integration of diverse perspectives into organizational processes, thereby going beyond inspiration to foster structural and relational inclusion [14].

Servant leadership, grounded in humility and follower development, highlights leaders' responsibility to serve others [15][16]. While servant leadership emphasizes support and care, it does not necessarily require leaders to mobilize diversity as a source of organizational advantage. Inclusive leadership extends beyond support by ensuring that individual differences are systematically represented in decision-making, thereby framing diversity as both a moral and a strategic resource [17].

Ethical leadership is defined by fairness, integrity, and moral management [18]. Ethical leaders promote trust through principled behavior, yet fairness alone does not guarantee inclusivity. Inclusive leadership advances this agenda by ensuring that marginalized voices are not only treated fairly but are actively invited and valued in organizational discourse [19].

Authentic leadership focuses on leader self-awareness, relational transparency, and consistency [20]. While authenticity may build trust, it does not inherently guarantee inclusiveness. Inclusive leadership requires not only authenticity but also proactive behaviors that ensure employees with diverse identities feel safe, respected, and empowered to contribute [21].

Empowering leadership emphasizes delegation, autonomy, and self-efficacy [22]. Yet empowerment does not automatically translate into inclusiveness, as employees may lack psychological safety to exercise autonomy in diverse teams. Inclusive leadership complements empowerment by embedding psychological safety and belongingness into the organizational climate [23].

Participative leadership involves consultation and joint decision-making [24]. However, participation alone does not address identity-based barriers to inclusion. Inclusive leadership differentiates itself by ensuring that participation is not merely formal but substantive, shaped by a climate where uniqueness is respected and differences are integrated [25].

Finally, LMX theory emphasizes the quality of dyadic relationships between leaders and followers [26]. High-quality exchanges promote trust and reciprocity, but LMX may reinforce "in-group" and "out-group" distinctions. Inclusive leadership transcends dyadic boundaries by cultivating a collective inclusion climate where all team members have equitable opportunities to contribute, thereby reducing LMX differentiation [27].

In summary, inclusive leadership draws on overlapping themes from these paradigms but distinguishes itself through its explicit focus on belongingness, uniqueness, and diversity integration. It represents not only an ethical and relational commitment but also a strategic approach to transforming diversity into organizational value.

DISCUSSION

The review of the literature demonstrates that inclusive leadership represents a transformative paradigm in contemporary organizational behavior. Its primary contribution lies in reframing diversity from a potential liability into a strategic resource by deliberately cultivating climates of belongingness and uniqueness [28] [29]. Unlike other leadership theories that emphasize motivation, ethics, or authenticity in isolation, inclusive leadership systematically integrates these elements into practices that actively solicit and legitimize diverse voices. By doing so, it creates an environment where psychological safety is not incidental but intentional [30] [31]

One of the strongest findings across the literature is that inclusive leadership promotes not only individual outcomes such as employee engagement, creativity, and voice, but also collective outcomes such as team learning, innovation, and performance [32] [33]. These dual-level effects highlight the value of inclusive leadership in complex, knowledge-intensive environments where interdependence is high. Moreover, inclusive leadership has been shown to be particularly effective in healthcare, education, and global corporations—contexts in which diversity is both salient and consequential [34].

Despite these promising contributions, the literature also reveals several limitations. First, much of the empirical evidence relies on cross-sectional survey designs, which limit causal inference. Longitudinal and experimental studies are needed to establish the dynamic processes by which inclusive leadership shapes outcomes over time. Second, measurement remains an unresolved challenge. The Carmeli et al. (2010) nine-item scale has been widely adopted, yet questions remain about its cross-cultural validity and dimensional consistency. Future research should seek to refine and validate measures across cultural and industry contexts [35]

A third limitation concerns the boundary conditions of inclusive leadership. While evidence suggests its benefits across diverse contexts, few studies explore when and under what conditions inclusive leadership may be less effective. For instance, in high power-distance cultures, inclusivity may require deliberate efforts to overcome hierarchical norms [36]. Similarly, in environments characterized by extreme time pressure or rigid bureaucratic structures, the relational processes central to inclusivity may be constrained. Addressing these contingencies will provide a more nuanced understanding of inclusive leadership.

Finally, the intersection of inclusive leadership with emerging organizational concerns remains underexplored. In particular, the rise of remote and hybrid work has created new challenges for fostering inclusion without physical proximity. Leaders now face the task of building psychological safety through digital platforms and asynchronous communication, which may require new competencies and practices. Additionally, the growing emphasis on sustainability and ESG

(Environmental, Social, and Governance) strategies raises questions about how inclusive leadership can be scaled from the interpersonal to the institutional level.

Overall, the discussion suggests that inclusive leadership is both theoretically robust and practically significant, but it is still an evolving construct. Further work is needed to consolidate its conceptual foundations, refine its measurement, and explore its applications in emerging organizational landscapes.

CONCLUSION

This research positions inclusive leadership as a critical and contemporary leadership paradigm for addressing the complexities of organizational diversity. By moving beyond tolerance toward active integration of differences, inclusive leadership fosters climates in which employees feel both valued and safe. In contrast to related leadership theories, inclusive leadership uniquely emphasizes belongingness and uniqueness, thereby ensuring that diversity contributes not only to fairness but also to innovation, engagement, and organizational resilience.

The review demonstrates that inclusive leadership generates benefits at both the individual and collective levels, enhancing employee voice, creativity, psychological safety, and team performance. It also underscores the importance of inclusive leadership in high-stakes contexts such as healthcare, where inclusivity directly affects patient outcomes, and in global organizations, where cross-cultural collaboration is essential.

However, inclusive leadership remains a developing construct. Future research should adopt multi-level and longitudinal designs to capture its dynamic effects over time, refine measurement instruments for cross-cultural applicability, and explore its boundary conditions across varying cultural and organizational contexts. Additionally, scholars and practitioners must consider how inclusive leadership can adapt to new realities such as remote work, digital transformation, and sustainability agendas.

For practitioners, inclusive leadership offers more than a normative aspiration; it provides a roadmap for harnessing diversity as a source of organizational value. Leaders can translate inclusivity into practice through deliberate behaviors such as soliciting input from marginalized voices, embedding fairness into decision-making processes, and fostering climates of psychological safety. By institutionalizing these practices, organizations can

transform diversity from a managerial challenge into a sustainable competitive advantage.

In conclusion, inclusive leadership is not merely an emerging construct but a strategic necessity for organizations navigating the twenty-first century. It offers a framework that integrates ethical responsibility, relational openness, and strategic value creation. As organizations continue to confront the challenges of globalization, technological disruption, and societal expectations for equity and inclusion, inclusive leadership will remain central to both academic inquiry and organizational practice.

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On Legal Discourse

Lect. Kaan DÜZDEMİR¹

Assist. Prof. Dr. Şule DÜZDEMİR²

¹Girne American University, Faculty of Law, orcid.org/0000-0001-9083-3978

²Girne American University, Faculty of Humanities, orcid.org/0000-0001-8192-0957

I. INTRODUCTION

An essential aspect of social life is the communication which is connected across different situational contexts. Individuals do not produce speech in isolation, and separate “speech events” (Hymes 1974) are not independent from one another. From the Bakhtinian (1986) viewpoint, language is inherently a social activity. Everything we say or create even artistic expressions is shaped by the words of others, carrying different levels of influence as well as varying levels of consciousness and emotional distance (Hodges, 2015). Discourse analysis involves examining and understanding how language is used. In other words, discourse analysis entails a systematic examination of text to uncover the general underlying rules that govern its linguistic or communicative functions. For Handford and Gee (2023) it is an examination to see how language is used in real-life situations. It focuses on the meanings we assign to language and the actions we perform through language in particular contexts. It is also often described as the study of language beyond the sentence level looking at how sentences are connected to form meaning, achieve coherence, and serve specific functions. They also explain the significance of discourse analysis and state that through our speaking and writing, we give meaning to the world in particular ways while leaving out others. By using language, we actively construct, influence, and reinforce how the world is understood. At the same time, the world we help create through language also influences and shapes who we are as individuals. This ongoing interaction between language and human experience can deeply impact people’s lives. So, discourse analysis is important because language itself plays a crucial role in shaping reality. According to Hjelm (2021), discourse analysis explores how language is used to perform actions and investigates how language shapes identities, relationships, belief systems, and knowledge. It merges the interpretation of texts with detailed linguistic analysis.

II. DISCOURSE AND LEGAL DISCOURSE

Discourse analysis can be broadly defined as the study of language from a communicative perspective and/or the study of communication through a linguistic lens (Trappes-Lomax, 2004). It can be conducted in various ways. For instance, analysts may study paragraph structure, the overall organization of texts, or common patterns in conversational exchanges such as how speakers begin, end, and take turns during a conversation. For Paltridge and Wang (2015), discourse analysis focuses on:

1. recurring linguistic patterns found throughout spoken and written texts,
2. the broader language knowledge required beyond words, clauses, phrases, and sentences for effective communication,
3. how individuals interpret meaning from what is said and how that understanding is formed,

4. the connection between language and the social and cultural environments in which it is used,
5. how language shapes various perspectives and interpretations of the world.

Thus, discourse analysts examine what people naturally and often unconsciously do in everyday language use observing patterns in how language is used and consider the typical contexts such as the participants, situations, intentions, and outcomes associated with those patterns (Trappes-Lomax, 2004).

As for the legal language, it is obvious that the majority of our routine daily actions take place within a legal framework. While legal language has traditionally drawn interest from legal philosophers and sociologists, it has only more recently begun to attract the attention of linguists and discourse analysts. In addition, legal language is crucial in shaping, interpreting, negotiating, and enforcing legal justice. Using a specific range of legal genres, it aims to build and uphold a structured model of rights and duties, as well as permissions and restrictions (Bhatia, Candlin and Engberg, 2008). Economic globalization has a major impact on the interactions between institutions, organizations, and individuals across different societies, cultures, and legal systems, affecting both law and language. It shapes all types of legal relationships by generating and reshaping new ways of expression that help build professional practices and identities (Fairclough 2001). Another perspective comes from Danet (1980). For him, a key advancement in the field of law and language has been the growing emphasis on viewing legal language as a social issue. The term *legal discourse* serves as a broad concept that encompasses the study of all aspects of legal phenomena not only written forms like legislation, but also spoken elements such as courtroom interactions, and even non-verbal aspects like physical evidence and the courtroom's physical arrangement. So, legal narrative is closely tied to the core idea of narrative as a tool for creating meaning within the process of law-making (Cheng and Danesi 2019). On the other hand, Philips (1998) explores how culture and ideology influence the way legal texts are interpreted and applied in courtroom settings. She shows how political views can shape judicial behavior through complex interactions with metalinguistic structures, leading judges with differing political beliefs to interpret and apply the exact same legal language in significantly different ways. Actually, the rules governing legal discourse are well understood by those who participate in legal discussions. Certain types of arguments are permitted, while others are not. You can cite statutes, legal cases, and regulations, but references to things like poetry, novels, art history, or horse racing results are generally seen as irrelevant to serious legal discussion. This discourse is also supported by commonly accepted rules for demonstrating whether a specific statement accurately reflects the law (Fletcher, 1992).

The other approach which is called as *critical* aims to expose the hidden effects of power, the subtle ways in which power can stigmatize vulnerable groups, marginalize those on the edges of society, legitimize privilege, and, by presenting ideology as mere common sense, shape political discourse and undermine opposition (Trappes-Lomax, 2004) and sees language as *everywhere and always political* (Gee, 1999). So, focusing on how legal texts are structured, what linguistic strategies are used as well as the relationship between the text and its context (such as the legal system) and consistency of the text, discourse analysis examines legal texts in terms of linguistic structure, context, and meaning. Critical discourse analysis, on the other hand, evaluates legal texts not only from a linguistic perspective but also in terms of social, ideological, and power relations. The focus here includes whose interests the legal texts serve, what social inequalities they maintain or conceal or how power is legitimized through language. As the part of these fields which are studied, legal discourse refers to:

- a) the language used in statutory laws;
- b) how statutory laws are interpreted in judicial rulings;
- c) different types of language used in courtrooms, such as opening and closing statements, questioning of witnesses during direct and cross-examination, and instructions given to juries
- d) written agreements that establish legal responsibilities, including leases, insurance contracts, wills, and waivers of liability (Finegan, 2013).

McGinnis and Rappaport (2017) state that when examining the nature of legal language, two distinct conceptions of a languages must be taken account: *a narrow conception* and *a broad conception*. In the first one, language is defined strictly in terms of semantics, that is to say, word meanings and syntax. In contrast, the broad conception sees language as encompassing all the rules that both the writer and the reader follow when using language. Beyond just semantics and syntax, this broader perspective also includes additional rules such as legal interpretive rules that guide how legal language should be understood. For them, legal interpretive rules are crucial for determining the meaning of legal statements under both the broad and narrow conceptions of the language of the law. In addition, Bhatia, Candlin and Engberg (2008) state some tasks to examine the generic integrity of legislative documents:

1. Collection of background information on individual countries, with a particular focus on their legal systems specifically how laws are drafted, interpreted, and applied; the languages chosen for legal use; and the historical practices related to arbitration and conciliation in each country.

2. Examinations of the linguistic and discourse features of different groups of international arbitration laws across various languages, dialects, cultures, and legal systems. The analysis particularly emphasizes the use and nature of qualifications, scope definitions, inclusiveness, expressions of uncertainty, intertextual and interdiscursive elements, as well as levels of control and transparency.
3. Comparing laws from different countries with a focus on areas where they have been developed differently, aiming to provide explanations and explore the consequences of these differences. This comparison often draws on examples from key agreements, contracts, cases, and rulings in international arbitration.

Normative discourse such as statutes and regulations differs across countries due to variations in constitutional, sociocultural, and economic conditions. These differences reflect efforts to adapt to diverse cultural, linguistic, and legal settings, taking into account local customs and traditions, legal frameworks, types of disputes, procedural practices, language considerations, cultural backgrounds, and other socioeconomic factors. (Bhatia, Candlin and Engberg, 2008). Anthropologists and psychologists studying how speech style affects credibility discovered that differences in certain pragmatic features influenced how testimony was evaluated. Specifically, speakers who used a *powerless speech style* characterized by frequent use of intensifiers, hedges, pauses, gestures, questioning intonation, tag questions, and polite expressions were generally considered less credible than those who spoke in a *powerful style* (Mertz, 1994).

Legal statements are typically more than just descriptions. They establish behavioral rules, grant rights, impose responsibilities, and more. Essentially, the core of law is prescriptive in nature. However, whether these prescriptive statements can be considered propositions remains a contested and unresolved question. Pragmatically, legal contexts differ from everyday conversations. In regular conversations, it's often clear that what someone means or asserts isn't exactly the same as the literal words they've used (Marmor, 2008).

Conley and O'Barr's (1990) work demonstrates that studies of legal language have potential for linking the details of pragmatic structure with the content of legal discourse and with broader socioeconomic considerations. It reveals how the structure of language used in the courtroom can carry its own form of power, serving as a key mechanism through which the dominant social order reinforces itself even within an institution that is supposedly intended to work to oppose or limit the order.

Conversational implicatures are generally unreliable in legal settings, as there are no universally accepted norms that clearly define what constitutes a relevant contribution in legal communication. Moreover, the legal context is not consistent in this regard—implicatures may be more significant in some legal situations than in others. In some instances, certain meanings are implied

based on the semantic characteristics of the expressions used. Just like in everyday conversation, semantically encoded implications and presuppositions are also significant in legal contexts. The communicative commitments that arise from the meaning of the language used are typically considered part of what the law requires, even if the implied content isn't fully spelled out in the legal statement itself (Marmor, 2008).

Gibbons (1999) states that legal discourse often targets two different audiences: the general public and legal professionals. For example, police cautions need to be understood by the person receiving the caution, but they must also meet legal standards to be accepted in court as valid. This dual purpose helps explain why there is often reluctance or resistance to adopting plain language in legal contexts.

To sum up, as Fletcher (1992) states, law deals with interactions between people. An individual living completely alone would have no reason to understand concepts like contracts, torts, property, or criminal law. They might still follow religious laws, but even that would only be meaningful if they viewed themselves as being in a relationship with another being such as a deity. In such a case, the secular legal system as we know it would hold no relevance. Thus, the law could be made up entirely of rules and principles intended to settle conflicts between individuals. However, a dispute only truly exists when people engage in verbal accusations, arguments, and exchanges essentially, through language. Trosborg (1992) also states that legal language should be differentiated from other forms of language related to the law, such as the language spoken in courtrooms, the language found in legal textbooks, and the language used to discuss legal matters in both formal and informal contexts. Thus, law functions as a central site of linguistic appropriation, where everyday concepts are transformed into legal terms, bringing about significant changes. Through this legal language, the state enforces its own interpretations and asserts control both physically and symbolically while individuals and groups use the same language to challenge and reshape existing power structures (Mertz, 1994).

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The Socialisation Function of the Family Institution: Structural and Functional Transformations in the Modern Era

Saniye VATANDAŞ¹

¹ Associate Professor; Tekirdağ Namık Kemal University, Faculty of Science and Letters, Department of Sociology, svatandas@nku.edu.tr ORCID No: 0000-0001-9075-0152

ABSTRACT

This study examines the socialisation function of the family institution from historical and modern perspectives, addressing its structural and functional transformations. The family emerges as a central institution in an individual's learning of social norms, values, and behaviours; in traditional societies, the extended family structure and intra-community interactions enable children to internalise social roles and cultural values. However, processes of modernisation, urbanisation, individualisation, and digitalisation have forced the family to share the transmission of norms with alternative socialisation arenas to some extent. Educational institutions, peer groups, and digital platforms have become increasingly influential in the acquisition of social identity and values. Problems encountered in modern socialisation processes include role ambiguities within the family, the confusion of norms created by social media and digital tools, the weakening of parent-child communication, conflicts between traditional values and modern lifestyles, and socio-economic inequalities. These dynamics can affect children's identity development and social adaptation. Proposed solutions include family education programmes, parental guidance, media literacy, school-family cooperation, social skills development, and support from the state and civil society. These approaches strengthen the socialisation role of families while supporting the development of children and young people into individuals who are sensitive to social norms and values and able to adapt to the requirements of modern society.

Keywords: Family, Socialisation, Modernisation, Digitalisation, Social Norms.

INTRODUCTION

Throughout history, the family has been defined as both a biological and cultural institution that plays a central role in an individual's adaptation to the social world. As the environment where social norms, values, behavioural patterns, and social roles are first learned, the family plays an indispensable role in an individual's identity development and social integration. The socialisation process not only ensures the individual's social acceptance but is also a critical mechanism for preserving cultural continuity, transmitting ethical values, and maintaining social order. In traditional societies, socialisation processes conducted through extended families and village communities provided individuals with multi-layered social learning environments, ensuring the intergenerational transfer of knowledge and values. However, social transformations such as modernisation, urbanisation, individualisation, and digitalisation have profoundly affected the structure and function of family socialisation. In modern society, the family is no longer the sole centre for the transmission

of social norms and values, while educational institutions, peer groups, the media and digital platforms have emerged as alternative or complementary areas of socialisation. This study examines the socialisation function of the family institution from a historical perspective, within the context of structural and functional transformations in the modern era, and evaluates the effects of dynamics such as digitalisation, socio-economic changes, and gender roles on intra-family socialisation processes. Furthermore, the problems and proposed solutions emerging in modern socialisation processes are examined in the context of holistic cooperation between the family, education, social environment, and digital platforms. In this context, the study aims to comprehensively reveal the individual and social dimensions of family socialisation.

The Socialisation Function of the Family: Conceptual Framework

The family is a central socialisation institution in the individual's adaptation to the social world. In this respect, it is an institution that is unparalleled in its importance and functionality (Vatandaş, 2011: 5-8). Socialisation refers to the process by which individuals learn the norms, values, and rules of society and reflect these rules in their behaviour. In this context, the family is not merely a biological union; it is also an educational environment where cultural, moral, and social codes are first learned. The functions assigned to the family in the socialisation process are critical for both the individual's social acceptance and the continuity of the social order.

The transmission of norms, values, attitudes, and behaviours are among the most fundamental dimensions of family socialisation. Children learn behavioural patterns from their parents and close relatives through observation in the family environment. For example, a child's adoption of behaviours such as sharing, taking responsibility, or social cooperation is largely dependent on the attitudes modelled within the family. This process is important not only in terms of individual behavioural development but also in terms of the continuity of a society's cultural and moral norms and value standards. The transmission of norms is also reinforced through social sanctions and reward mechanisms; children learn in an environment where correct behaviour is rewarded and wrong behaviour is criticised.

The internalisation of social roles is the second critical dimension of family socialisation. The family is the primary place where children learn about the roles they will assume in society according to parameters such as gender, age and social status. This role learning enables children to recognise social expectations and develop appropriate behaviours. For example, a child's interactions with siblings, friendships, or sharing responsibilities within the family shape their understanding of social roles. This process forms the basis for the individual's future career choices, social participation, and responsibilities within the family.

Social learning theory provides an important conceptual framework for explaining the role of the family in shaping an individual's behaviour patterns. Social psychologist Albert Bandura emphasises that individuals learn behaviour through observation and that the mechanism of modelling is critical. According to his findings, children develop similar behaviours by observing their parents' verbal and non-verbal behaviours. Jean Piaget, one of the key references on the subject, argues that children grasp social norms through family experiences during their cognitive development. For example, through structured games and daily routines, children learn right from wrong and social expectations. Lev Vygotsky, within the framework of socio-cultural theory, states that individuals internalise cultural knowledge and values through social interactions. According to his findings, language, communication and guidance are the fundamental tools of this process within the family. Even when only these three approaches are considered together, it is evident that the family environment plays a critical role in the individual's acquisition of social identity, both cognitively and emotionally (Vatandaş, 2003: 16-17).

The transmission of gender roles through the family constitutes a specific dimension of socialisation. Within the framework of cultural norms and historical traditions, the family instils different responsibilities and behavioural patterns in boys and girls. This process is important not only for individual identity development but also for the continuity of the social structure. For example, teaching a girl domestic responsibilities or assigning outward-facing social duties to a boy reinforces gender-based role expectations in society. However, in modern societies, gender roles and the distribution of responsibilities within the family are becoming increasingly flexible, adding new dynamics to the socialisation process (Vatandaş, 2007; Başar, 2020).

The socialisation of cultural and religious codes within the family forms the basis of an individual's social identity and ethical values. The family functions as an educational environment that first conveys religious beliefs, moral values, traditions and customs. This process plays a critical role not only in terms of the individual's own identity development but also in terms of social integration and cultural continuity. For example, through holiday celebrations, religious rituals, and traditional activities, children learn both social norms and collective values (Bayer, 2013).

In short, the socialisation function of the family is a central mechanism in terms of the individual's adaptation to social life, internalisation of norms, learning of social roles, and adoption of cultural and religious values. In this context, the family continues to be one of the cornerstones of social continuity and individual development, both as an educational institution and as a vehicle for cultural transmission. Despite changes in modern society, family socialisation remains indispensable in shaping an individual's identity, values, and behaviours.

Historical Perspective: Traditional Family and Socialisation

In traditional societies, the family has functioned not only as a biological union but also as the most fundamental building block of social order and cultural continuity. The central role of this structure is to enable the individual to position themselves as part of society during the socialisation process and to transmit cultural, moral and social norms across generations. In this context, the socialisation process is of critical importance both for the development of the individual's personal identity and for ensuring social integration.

In traditional societies, the family structure was generally based on the extended family model. Extended families represented a social organisation that included not only parents and children, but also grandparents, uncles, aunts and cousins. This structure ensured that the individual was in constant interaction with members of different ages and social statuses. Consequently, children grew up in a multi-layered social learning environment. Village communities and small settlements supported social learning areas outside the family, enabling children to develop a sense of solidarity, cooperation and social responsibility. Within these structures, children learned both their social roles and social expectations through daily life experiences. For example, agricultural work or household chores performed under the supervision of adults instilled in children a sense of responsibility based on age and gender. However, these have now become the exception. This is because the dominant family type is the nuclear family. The nuclear family is defined as a family consisting of a mother, father and children. In fact, there is now an increasing trend towards childless families. The village community has largely disintegrated and has become merely the name of a geographical location.

Intergenerational knowledge transfer is the most prominent aspect of traditional socialisation. Older generations passed on cultural knowledge and social norms to children through both experience and authority. This transfer usually took place through oral narration, rituals, stories, and daily life practices. For example, a child would learn about historical events and cultural codes by listening to the life experiences of their elders; at the same time, they would learn behavioural patterns through observation within the family. This process involved not only the transfer of knowledge but also the internalisation of behaviours, values, and norms. In this context, the family functioned as the primary social learning laboratory for the child, who learned to adapt to social norms at both the cognitive and emotional levels in this environment (Seven, Çubuk: 2021).

The dominance of social norms is evident in traditional socialisation. The family's function in this regard acquires an institutional framework through religion and traditions. Religious beliefs, holidays and rituals, traditional practices and social customs provide the child with information about the functioning of the social order and the importance of moral values.

This process not only ensures individual discipline and internalisation of values; it also serves to preserve the collective identity and cultural continuity of society. For example, when a child participates in worship and celebrations with their elders during religious holidays, they both learn social norms and develop a sense of belonging.

In traditional structures, children's acquisition of social identity is one of the most concrete outcomes of socialisation within the family. The family gives the child responsibilities appropriate to their age, gender and social position; these duties enable the child to understand and apply their social roles. Examples such as boys learning agricultural or outward-facing tasks and girls taking on domestic responsibilities make the family the primary mechanism for learning social roles. Through this process, children gain individual competencies and adopt patterns of behaviour that meet society's expectations. In later years, the socialisation experiences acquired from the family serve as a fundamental reference point in interactions with school, work and religious communities. Despite all the changes and transformations, traditional family socialisation remains an important reference point in the face of many changes encountered by modern societies. The multi-layered social learning, authority mechanisms, and cultural code transmission provided by extended families and village communities are fundamental elements that shape both the individual's social adaptation and cultural identity. This historical perspective provides a critical framework for understanding changes in the modern family structure and evaluating the current dimensions of socialisation.

The Socialisation Function of the Family in the Modern Era

The modernisation process has led to profound and multi-layered changes in the socialisation function of the family institution. Socio-economic transformations such as industrialisation, urbanisation, individualisation, and globalisation have partially distanced the family from being the primary centre for the transmission of social norms and values, paving the way for the rise of alternative socialisation arenas. In this context, modern family socialisation exhibits significant differences both functionally and structurally.

The effects of modernisation and population movements have profoundly affected family structure and socialisation processes. Urbanisation and rural-to-urban migration have reduced the social learning environments provided by extended families and village communities. The rise of the nuclear family structure, while intensifying interaction between individuals, has limited children's opportunities to learn by observing within the extended family and community. This has led to increased individualisation and loosening of family ties. In the modern urban environment, traditional mechanisms of cooperation and solidarity among family members have weakened; the family alone is no longer sufficient for

the internalisation of social norms. For example, children now learn behaviour, values, and social codes not only from their parents or elders but also through school friends, teachers, and digital platforms (Gökçe, 2017).

The role of education and media tools is an important and integral component of modern socialisation. Educational institutions offer an alternative socialisation space to the family for children and young people to learn social norms. From pre-school to university level, education systems not only impart academic knowledge but also play a central role in the acquisition of social skills such as social responsibility, cooperation, compliance with rules, and group interaction. In this context, school is a second social laboratory in modern society where children shape their social identities (Vatandaş, 2025d: 38-46).

Media and digital tools have made modern socialisation processes more complex. Television, the internet, social media, and digital games enable individuals to learn social norms, values, and behaviour patterns outside the family. While this offers opportunities in terms of access to information and cultural diversity, it also carries risks such as the weakening of family guidance and the adoption of incorrect norms. For example, behavioural patterns acquired through social media may conflict with traditional family values, leading to identity conflicts and social adjustment problems among young people.

Functional changes observed in the modern era directly affect the family's capacity for socialisation. The increase in working parents and the growth in individual responsibilities among family members have reduced the effectiveness of family guidance and control mechanisms. Children now learn social norms and values from many different sources outside the family, which has increased the importance of alternative socialisation areas. Alternative socialisation areas have diversified into peer groups, school, media, digital platforms, and community activities. These areas highlight the importance of processes independent of the family in the modern individual's acquisition of social identity and values (Şentürk, 2008).

The transformation of the family's modern socialisation function has significant consequences not only in functional terms but also in psychological and socio-cultural dimensions. The decline in the family's capacity for control has led to the emergence of multiple reference points that determine the values and behaviours of children and young people; this has created a complex environment in terms of both social adaptation and individual identity development. For example, values acquired through popular culture and global norms on digital platforms may conflict with traditional norms learned from the family and lead to different orientations in young people's identity construction.

In summary, the processes of modernisation, individualisation and digitalisation have reshaped the socialising function of the family. While the family has partially lost its traditional role of authority and guidance,

educational institutions, peer groups, and digital platforms have become more effective in shaping an individual's social identity and values. This transformation necessitates a reassessment of the nature, functionality, and role of family socialisation in modern society.

Digitalisation and Socialisation

Since the beginning of the 21st century, digitalisation has become a fundamental factor that has fundamentally transformed the function of family socialisation. The internet, social media platforms, mobile applications, and digital games have positioned the family as both a complementary and alternative socialisation space in the process of individuals learning social norms, values, and behavioural patterns. This transformation has serious implications for role distribution within the family, intergenerational communication, and the transmission of norms (Vatandaş, 2025b: 252-285).

The effects of the internet, social media, and gaming culture are becoming increasingly significant in modern socialisation. Digital environments enable individuals to quickly access different cultural experiences and norms, shifting social learning processes outside the family. For example, through social media, young people can follow global trends beyond their own cultural context and develop new identities in online communities. Digital games enable the learning of social skills such as cooperation, strategy development, and competition in a virtual environment. However, this process leads to a decrease in family control and guidance (Büyükaslan, 2025). Children and young people learn norms and values independently of parental supervision on digital platforms; this limits the effectiveness of family socialisation.

Intergenerational conflict with digital socialisation is one of the most significant problems facing modern families. While parents prioritise traditional family, cultural, and religious values, children encounter different, sometimes conflicting norms in the digital world. This situation leads to a paradigm shift in parent-child relationships (Vatandaş, 2025a: 278-284). For example, while a child may adopt popular culture norms through social media, parents may find the same behaviours inappropriate or conflicting with their values. These different socialisation experiences can lead to communication breakdown, value conflicts, and trust issues. However, it should not be assumed that socialisation through digital means is entirely negative. The positive effects of digital socialisation include ease of access to information, cultural diversity, and opportunities for global interaction. Children and young people can see different perspectives, encounter various cultural and ethical values, and develop critical thinking skills through digital tools. Furthermore, social skills, collaboration, leadership, and problem-solving abilities can be strengthened through online communities. Digital socialisation, particularly during the pandemic, has

enabled children and young people to continue learning without losing their social skills. On the other hand, the negative effects are also evident. Digital addiction, isolation, distraction, cyberbullying and loss of social values are among the main risks of modern socialisation. The rapid and unlimited flow of information on digital platforms can lead children to adopt normative values without subjecting them to critical scrutiny. Furthermore, increased screen time reduces family interactions, limits parent-child communication, and weakens the impact of family guidance.

The digitalisation process has forced families to redefine their socialisation function. Traditionally, the family was solely responsible for transmitting cultural values, norms and social roles to individuals; in the modern era, this function has expanded significantly with the new requirements brought about by digital environments. Families now also have to take on responsibilities such as guiding their children in developing digital literacy skills, managing their online behaviour, and raising their awareness of virtual security. For example, parents monitoring their children's social media use, discussing online ethical norms, and raising awareness about the risks they may encounter in the digital environment are among the new dimensions of modern socialisation (Haberli, 2023). This situation necessitates that the family institution both maintain its traditional social functions and adopt the new roles and skills required by the digital age.

Consequently, digitalisation has reshaped modern socialisation processes in terms of both opportunities and risks. The internet, social media, and digital games play a complementary or substitutive role to the family in individuals' learning of social norms and values, while also bringing new challenges such as intergenerational conflict, value confusion, and a decline in family guidance. These dynamics should be considered a critical area in the context of modern family socialisation, both in terms of individual identity development and social adaptation.

Socio-Economic and Cultural Factors

In modern societies, the family socialisation function is heavily influenced not only by individual and cultural factors but also by socio-economic and cultural dynamics. The increase in working parents, migration and ethnic diversity, globalisation and transformations in gender roles have led to the reshaping of children's social learning processes within the family. These processes are of critical importance in terms of children's identity development, the adoption of social norms and the acquisition of social skills.

Working parents and the transformation of socialisation are fundamental determinants of the modern family structure. The increase in women's participation in the workforce has transformed the traditional distribution of roles within the family and reduced the amount of time parents spend interacting directly with their children. This situation has

shifted children's processes of acquiring norms, values, and behaviours outside the family, increasing the importance of nurseries, daycare centres, and other social environments. Nurseries and daycare centres not only provide physical care for children but also create social learning environments where they can learn social rules, sharing, cooperation, waiting in line, and conflict resolution (Ünsan, 2015). In this process, children observe behavioural models through peer interactions and develop coping mechanisms by experiencing different social norms. However, this situation may limit the reinforcement of cultural and moral values learned from the family and lead to the emergence of diverse reference points in children's socialisation.

Migration, ethnic diversity, and multicultural family structures are another critical factor affecting modern socialisation. Internal migration, international migration movements, and cultural diversity have turned the family into an environment where children must learn multiple cultural codes. Multicultural family structures require children to evaluate the norms learned at home alongside the different norms they encounter at school, among friends, and on social media. For example, a migrant child learns the cultural and religious values of their family at home, but encounters different social norms and values at school or among their peers. This situation gives rise to a multi-layered social learning process and sometimes value conflicts in the child. In migrant families, parents are compelled to develop conscious guidance strategies to ensure that children learn both their own cultural values and universal social norms.

Gender roles and changing task distributions in modern families are another important dimension that transforms socialisation within the family. In traditional societies, gender-based role distribution was quite sharp and distinct; boys were directed towards extroverted and economic activities, while girls were directed towards domestic responsibilities. In modern families, however, these boundaries are becoming more flexible, and the distribution of responsibilities is being reshaped in a more egalitarian manner (Vatandaş, 2025c: 239-250). Working mothers and fathers who take on active roles work together to share domestic responsibilities and participate jointly in their children's education, play, and social development processes. This flexibility allows children to develop a more egalitarian social identity, free from gender-based stereotypes. Furthermore, children grow up in social environments where different gender roles coexist, gaining the ability to critically evaluate social norms.

The impact of economic conditions is also an undeniable factor in family socialisation. Income level is decisive in terms of the time parents can devote to their children, educational opportunities, and access to social activities. While high-income families can offer their children activities, courses, and social groups that foster social skills, low-income families may have limited socialisation opportunities for their children, resulting in fewer

opportunities for social learning. This situation leads to the reflection of social inequalities in children's socialisation processes and, in the long term, to the formation of differences in social capital.

Therefore, socio-economic and cultural factors affect modern family socialisation in a multidimensional way. Working parents, migration, cultural diversity, and transformations in gender roles have reshaped the distribution of roles within the family, control mechanisms, and children's value acquisition processes. These dynamics reveal that modern socialisation occurs not only within the family but also in interaction with educational institutions, social environments, and digital environments. In the modern socialisation process, the family continues to play an active role in both the transmission of traditional values and the learning of new social norms and skills; however, this role is more guidance and coordination-oriented than in the past.

Current Issues and Criticisms

In modern societies, the socialisation function of the family has become increasingly complex due to social, cultural, economic and technological transformations. The conflict between traditional norms and values and modern lifestyles, the blurring of roles within the family, the impact of digitalisation, and rapid changes in social structures are causing serious problems in the socialisation process. These problems have long-term effects on children's identity development, social adaptation, and the acquisition of social skills. These situations can be summarised as follows

Role ambiguities and lack of socialisation within the family: Urbanisation, the rise of the nuclear family, individualisation, and parents' busy work schedules have made it difficult to clearly define roles within the family. Children may not fully understand what behaviours and responsibilities are expected of them. This situation makes it difficult to internalise norms and values. For example, when working parents cannot devote sufficient time to their children, the child may lack basic social skills such as sharing, cooperation, and a sense of responsibility. Furthermore, role ambiguity within the family can negatively affect the development of children's decision-making and problem-solving skills in approaching social issues (Bayer, 2020).

The impact of social media on the confusion of norms and values: Social media creates a two-way effect in the modern socialisation process. Children and young people are exposed to different cultural and behavioural norms through social media; these norms may conflict with those learned from the family. For example, while patterns of behaviour focused on fast consumption, individualism, and instant gratification associated with popular culture can be learned through social media, the patience, responsibility, and traditional values transmitted within the family may be disregarded. This

situation can lead to value confusion, identity uncertainty, and behaviour incompatible with social norms in individuals (Katırcı, Bulut, 2024).

Weakening parent-child communication: Digitalisation, intense work schedules, and the proliferation of alternative socialisation areas have reduced face-to-face communication within the family. The decline in parents' capacity for guidance and supervision limits children's ability to critically evaluate social norms. This situation can lead to a lack of belonging, insufficient empathy, and a decline in social responsibility awareness in children. For example, behaviours learned in the digital environment can cause children to adopt incorrect norms and experience difficulties in social adaptation when parents are unable to intervene (Dereli, 2017).

Tension between traditional values and modern lifestyles: As modern life is shaped by individualism, flexible working hours, digital addiction, and a globalised consumer culture, families struggle to pass on traditional values. This tension leads to increased intergenerational conflict. For example, while norms of discipline and respect are strong within the family, children may learn more libertarian and individualism-focused behaviour patterns in digital environments. This contradiction increases intra-family conflicts and complicates children's process of adopting social values.

The impact of economic and social inequalities: Socio-economic differences directly affect families' capacity for socialisation. While high-income families can offer their children activities, educational courses and cultural experiences that build social skills, low-income families have limited opportunities for their children's socialisation. This situation leads to the intergenerational transmission of social inequalities and deepens social capital differences.

The conflict between digital and physical social spaces: Modern children and young people no longer confine their socialisation processes solely to physical environments; digital social spaces have become an equivalent, and in some cases even a primary, space in their lives. This situation highlights the conflicts that normative and behavioural differences between physical and digital social spaces can create for individuals. Physical social environments, such as structured settings like the family and school, generally encourage norms such as collective behaviour, patience, discipline and long-term goal orientation; digital spaces, particularly social media and online gaming platforms, support a culture focused on competition, rapid feedback and instant gratification. These differing norms can challenge individuals' capacity to develop social adaptation, empathy, and behavioural flexibility. For example, while a young person may be rewarded for quick reflexes and individual competitive ability in an online game, the same behaviour may lead to conflict in a school setting where patience, sharing, and cooperation are required for a group project. Thus, the

behavioural and normative mismatch between digital and physical spaces presents a critical test for modern socialisation.

In summary, the problems arising in modern socialisation processes centre around role uncertainties within the family, the confusion of norms and values on social media, the weakening of parent-child communication, conflicts between traditional values and modern lifestyles, and socio-economic inequalities. These problems threaten both individual identity development and social harmony by affecting children's learning processes regarding social norms and values. Therefore, solving current socialisation problems requires a holistic approach involving the family, educational institutions, the social environment, and digital platforms.

Solution Proposals and Policies

The problems that arise in the family's socialisation function in modern society cannot be solved by individual family efforts alone. Therefore, solution strategies require comprehensive cooperation between families, educational institutions, civil society organisations, local governments and digital platforms. Effective policies should both support children and young people in acquiring social norms and values and strengthen families' capacity for socialisation. The following are the priority solution proposals:

Family education programmes and parental guidance: Comprehensive education programmes should be implemented to enable families to play a more conscious role in socialisation processes. These programmes provide guidance to parents on child development, the transmission of social norms and values, communication and conflict resolution skills. For example, seminars can be organised to help parents understand the risks of the digital world and manage their children's online behaviour. Furthermore, guidance modules that encourage parents to review their own behaviour and attitudes and develop their awareness of being role models for their children strengthen family interaction. International research shows that parental education programmes positively influence the development of social skills in children, such as a sense of responsibility, sharing, and empathy (Sanders, 2012).

Media literacy and digital awareness: To balance the effects of digitalisation, children and young people's media literacy skills must be developed. This enables individuals to critically filter the information and behavioural patterns they encounter on social media and digital platforms. For example, media literacy lessons integrated into the school curriculum contribute to students developing ethical behaviour in the digital environment and raising awareness about harmful content and misinformation. Furthermore, parents monitoring and guiding their children's online activities reduces the negative effects of digital socialisation. This

approach supports the development of digital responsibility awareness at both the individual and societal levels.

Supporting social values through school and family: Coordinated efforts between families and educational institutions are crucial for children to learn social norms and values. Schools can serve not only as places for imparting academic knowledge but also as socialisation spaces where ethical values, social responsibility, cooperation, and social skills are acquired. For example, group projects, community service programmes, cultural activities, and role-playing games enable children to learn both cooperation and social norms. When this process is supported by the values conveyed in the family, children's capacity for both individual and social adaptation is strengthened. Furthermore, the preservation of cultural heritage and local values can be ensured through family and school cooperation.

Strengthening the social skills of children and young people: In modern socialisation processes, the social skills of children and young people need to be consciously developed. Empathy, communication, problem solving, conflict management, cooperation and leadership skills should be acquired in both physical and digital social environments. Drama, role-playing games, group projects and simulation activities enable social skills to be learned through experience. In the digital environment, safe online interaction, virtual communities, and collaboration-focused digital games can contribute to strengthening social skills. This process enables children to critically evaluate social norms and enhances their ability to adapt to society.

Political and social support mechanisms: State policies, local authorities and civil society organisations should also support the family's socialisation function. For example, expanding nurseries and childcare centres increases access to socialisation opportunities for children from socio-economically disadvantaged families. Family support centres can strengthen the conscious socialisation role of families by offering parental guidance and counselling services. Furthermore, policies supporting the safety and ethical behaviour of children and young people on digital platforms should be developed in collaboration with media and technology companies.

Consequently, policy solutions to modern problems arising in the family socialisation function should focus on conscious parental guidance, media literacy, value transfer and social skill development. These approaches strengthen families' traditional roles and responsibilities while ensuring that children and young people grow up as individuals who are sensitive to social norms and values and able to adapt to the requirements of modern society. Furthermore, comprehensive policies make it possible to reduce socio-economic inequalities and risks arising from the digital environment.

CONCLUSION

The family retains its importance as a fundamental institution that plays a central role in an individual's adaptation to social life, internalisation of norms and values, and learning of social roles. In traditional societies, socialisation through extended family and community structures has enabled individuals to acquire multi-layered social learning experiences and ensured cultural continuity. However, modernisation, urbanisation, individualisation, and digitalisation processes have fundamentally transformed the structure and function of family socialisation, leading to the rise of alternative socialisation areas. Educational institutions, peer groups, media, and digital platforms play a role in the modern individual's acquisition of social identity and values, either alongside the family or independently of it. The fundamental problems encountered in modern socialisation processes include role ambiguities within the family, conflicts of norms between digital and physical social spaces, weakened parent-child communication, tensions between traditional values and modern lifestyles, and socio-economic inequalities. These problems threaten both individual identity development and social harmony by affecting children's processes of learning social norms and values. In this context, solution strategies include family education programmes, parental guidance, media literacy, school-family cooperation, social skills development, and state and civil society support mechanisms. These approaches strengthen the traditional roles and responsibilities of families while ensuring that children and young people grow up to be individuals who are sensitive to social norms and values and able to adapt to the requirements of modern society. In conclusion, the socialisation function of the family has been shaped by processes of change and transformation in modern society, but it continues to be of indispensable importance in terms of individual development and social continuity.

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How Globalization and Imports are Related in the Long-run in Türkiye

Eda ÖZEN¹

Jülide YALÇINKAYA KOYUNCU²

- 1- Assoc. Prof., Bilecik Şeyh Edebali Üniversitesi İktisadi İdari ve Sosyal Bilimler Fakültesi İktisat Bölümü.
eda.ozen@bilecik.edu.tr ORCID No: 0000-0002-0818-1040
- 2- Prof.Dr., Bilecik Şeyh Edebali Üniversitesi İktisadi İdari ve Sosyal Bilimler Fakültesi İktisat Bölümü.
Julide.yalcinkaya@bilecik.edu.tr, ORCID No: 0000-0001-7930-4901

ABSTRACT

This study aims to reveal the long-run relationship between globalization and imports of goods and services in Türkiye. The study uses the ARDL method for cointegration analysis and estimation of long-run coefficients. Two different measures of imports of goods and services are used for the periods 1987-2022 and 1970-2022. We applied the Extended Dickey-Fuller unit root test to determine the degree of integration of our variables, and the test results revealed that each of our variables is integrated to the first degree.

Keywords – ARDL, Import, Globalization, Long-run.

INTRODUCTION

Looking at the evolution of globalization, even though it doesn't date back to a very distant past, it has a significant impact on every field. In economic terms, globalization, which holds a crucial place in the developing world order, is being studied from many perspectives. The literature encompasses studies on a wide range of topics related to this highly dynamic economic system. The purpose of this study is to examine the relationship between imports and globalization. This study, conducted specifically for Turkey, utilizes the ARDL analysis method. Now, we summarize some of the studies on globalization in the literature.

In his study, Oğul (2021) examines the effects of growth and foreign trade on the globalization process. As a result of the analyses, it is observed that the increase in imports has a positive effect on growth. Three different methods were used in the study; Enhanced Least Squares, Dynamic Least Squares and Canonical Cointegrated Regression analyses. Imports affect growth positively in all three methods. Similarly, there are similar studies in the literature on globalization, foreign trade and growth variables. The common method used in these studies is causality analysis (Okşak, Y., Dağılğan, G. (2020); Okşak, Y. (2018); Koyuncu, C., Sarıtaş, T., (2017)). It is a fact that globalization has an impact on all economic variables. Examining these effects only in terms of foreign trade would be an incomplete research. For example, in a study on the impact of globalization on production, a long-term analysis was conducted for Turkey (Okşak, Y. (2018);). In another work on globalization, the short- and long-run asymmetry between Turkey's globalization series and external debt interest

rate for the period 1970-2015 is empirically examined using the Nonlinear Autoregressive Distributed Lag model. The estimation results show that there is a statistically significant non-linear relationship between globalization and external debt interest rate for the example of Turkey (Yilmaz R., Yalçinkaya Koyuncu J., (2019); Glatzer, E., et al.(2006)). The economic dimension of globalization is addressed in every field, and one of these areas is the impact of e-waste on the economy. In one study, the relationship between the economic dimension of e-waste and globalization was examined using panel data analysis (Yilmaz R., Koyuncu C., (2023)).

In such a highly integrated world, it can be said that there is no field that is not affected by globalization. Several of these studies have analyzed the labor productivity and globalization pair using panel analysis (Koyuncu, C. and Unver, M. (2018); Hayakawa, K., et al. (2012); Koyuncu, C. and Ozen, E. (2022); Koyuncu, C. et al. (2023)). The portfolio investment variable, a leading macroeconomic variable, was also examined in its relationship with globalization using panel data analysis. The results of the panel causality test as a result of the analysis indicate a bidirectional causality between globalization and portfolio investments (Unal, S. and Koyuncu, C. (2018)). Many studies have been conducted on interest rates, a key variable in the interaction between globalization and money markets. One of these studies investigated the effects of globalization by conducting an ARDL empirical analysis between interest rates and globalization (Koyuncu, C. and Seyfettin U. (2019)).

DATA AND METHODOLOGY

Globalization may improve external trade capability and capacity of an economy. In other words globalization can increase a country's exports and imports by enhancing its integration with the world. In this sense, we would like to reveal the long-term interaction between globalization and imports of goods and services by conducting cointegration analysis and long-term coefficient estimations. ARDL estimation technique was preferred to implement our long-run analyses. We used overall globalization index (GLOBALIZATION) of the KOF Globalization Index as the indicator of globalization level in Türkiye. On the other hand two different measures of imports of goods and services (i.e., IMPORTS1 and IMPORTS2) were

utilized to see how robust our findings are. IMPORTS1 variable is given by imports of goods and services (constant 2015 US\$) while IMPORTS2 variable is given by imports of goods and services (% of GDP). The data for variables of IMPORTS1 and IMPORTS2 were obtained from WDI of the World Bank. The largest available time period interval were employed and thus long-run analyses using IMPORTS1 and IMPORTS2 variables cover the periods of 1987-2022 and 1970-2022 respectively. Meantime we utilized logarithmic forms of all dependent and independent variables in our long-run analyses.

ARDL bounds test was favored for cointegration analysis and for this reason we estimated following two models:

$$\Delta \text{GLOBALIZATION}_t = \alpha_0 + \sum_{i=1}^p \delta_i \Delta \text{GLOBALIZATION}_{t-i} + \sum_{i=0}^q \phi_i \Delta \text{IMPORTS1}_{t-i} + \theta_0 \text{GLOBALIZATION}_{t-1} + \theta_1 \text{IMPORTS1}_{t-1} + \varepsilon_t \quad (1)$$

$$\Delta \text{GLOBALIZATION}_t = \alpha_0 + \sum_{i=1}^p \delta_i \Delta \text{GLOBALIZATION}_{t-i} + \sum_{i=0}^q \phi_i \Delta \text{IMPORTS2}_{t-i} + \theta_0 \text{GLOBALIZATION}_{t-1} + \theta_1 \text{IMPORTS2}_{t-1} + \varepsilon_t \quad (2)$$

Regarding to the explanation of symbols in Equation 1 and 2: θ_0 and θ_1 symbols reflect the long-run coefficients of the model; δ_i and ϕ_i symbols display short-run coefficients of the model; Δ symbol represents first degree difference operator; α_0 is constant term of the model, and ε_t stands for white noise error term of the model.

In ARDL bounds test of cointegration analysis for the models given in Equation 1 and 2, the null hypothesis (i.e., $H_0: \theta_0 = \theta_1 = 0$) alleges the absence of co-integrating association between globalization and imports of goods and services whereas the alternative hypothesis (i.e., $H_1: \theta_0 \neq \theta_1 \neq 0$) contends the presence of co-integrating relationship between globalization and imports of goods and services. Concerning decision rule in ARDL bounds test, F-statistic value exceeding the critical value of upper limit at a conventional significance level implies that globalization and imports of goods and services are co-integrated. In other cases we are unable to say existence of cointegration relationship between globalization and imports of goods and services.

We constructed and estimated following two models to get estimations of short-run and long-run coefficients:

$$GLOBALIZATION_t = \beta_0 + \sum_{i=1}^p \alpha_i \Delta GLOBALIZATION_{t-i} + \sum_{i=0}^q \mu_i \Delta IMPORTS1_{t-i} + \gamma ECM_{t-1} + \varepsilon_t \tag{3}$$

$$GLOBALIZATION_t = \beta_0 + \sum_{i=1}^p \alpha_i \Delta GLOBALIZATION_{t-i} + \sum_{i=0}^q \mu_i \Delta IMPORTS2_{t-i} + \gamma ECM_{t-1} + \varepsilon_t \tag{4}$$

Concerning the notations in Equation 3 and 4: α_i and μ_i notations represent dynamic coefficients bringing the model back to the balance in the long-run; ECM reflects error correction term of the model; γ notation show the speed of adjustment at which the model returns back to the long-run in response to a shock occurred in the short-run. Moreover we must have negative and statistically significant coefficient estimation for the speed of adjustment term.

Estimation Results

ARDL bounds test for cointegration analysis requires the series used in the analysis to be integrated order no more than one and hence firstly we performed stationarity analysis via Augmented Dickey-Fuller (ADF) unit root test. As pointed out by the findings of ADF unit root tests, our variables are stationary at first differences and hence they are integrated order one. So our variables meet the integration order requirement of ARDL bounds test and we are able to employ ARDL bounds test for cointegration analysis.

Table 1. ADF Unit Root Test Results

Null Hypothesis: IMPORTS1 has a unit root		
	t-Statistic	Prob.
ADF test statistic	-1.53198	0.5066
Test critical values: 1% level	-3.62102	
5% level	-2.94343	
10% level	-2.61026	
Null Hypothesis: 1st.Diff.(IMPORTS1) has a unit root		
	t-Statistic	Prob.
ADF test statistic	-7.7416	0.0000
Test critical values: 1% level	-3.62102	
5% level	-2.94343	

	10% level	-2.61026	
Null Hypothesis: IMPORTS2 has a unit root			
		t- Statistic	Prob.
ADF test statistic		-2.86761	0.0558
Test critical values:	1% level	-3.55502	
	5% level	-2.91552	
	10% level	-2.59557	
Null Hypothesis: 1st.Diff.(IMPORTS2) has a unit root			
		t- Statistic	Prob.
ADF test statistic		-6.84153	0.0000
Test critical values:	1% level	-3.55502	
	5% level	-2.91552	
	10% level	-2.59557	
Null Hypothesis: GLOBALIZATION has a unit root			
		t- Statistic	Prob.
ADF test statistic		-2.89763	0.0555
Test critical values:	1% level	-3.62678	
	5% level	-2.94584	
	10% level	-2.61153	
Null Hypothesis: 1st.Diff.(GLOBALIZATION) has a unit root			
		t- Statistic	Prob.
ADF test statistic		-5.71982	0.0000
Test critical values:	1% level	-3.62678	
	5% level	-2.94584	
	10% level	-2.61153	

Before estimating our ARDL models, we have to decide on the best ARDL model in terms of optimal lag length. Therefore we used AIC criterion to identify the optimal lag lengths of our ARDL models. The findings were

reported in Table 2 and 3 and AIC criterion picks ARDL (4,3) for IMPORTS1 model and ARDL (2,0) for IMPORTS2 model. Thus our analyses are conducted by utilizing ARDL (4,3) for IMPORTS1 model and ARDL (2,0) for IMPORTS2 model.

Table 2. Optimal Lag Length Selection for IMPORTS1 Model

Model	LogL	AIC*	BIC	HQ	Adj. R-sq	Specification
2	28.414749	1.213422	0.801184	1.076777	0.964801	ARDL(4, 3)
12	26.401391	1.212587	0.891957	1.106307	0.963275	ARDL(2, 3)
13	25.286212	1.205388	0.930563	1.114291	0.962138	ARDL(2, 2)
17	24.934148	1.183384	0.908559	1.092287	0.961296	ARDL(1, 3)
18	23.837364	1.177335	0.948314	1.101421	0.960085	ARDL(1, 2)
7	26.622389	1.163899	0.797465	1.042437	0.962269	ARDL(3, 3)
1	28.499957	1.156247	0.698205	1.004419	0.963397	ARDL(4, 4)
11	26.403995	-1.15025	0.783816	1.028787	0.961751	ARDL(2, 4)
8	25.319778	1.144986	0.824356	1.038706	0.960706	ARDL(3, 2)
15	22.173298	1.135831	0.952614	-1.0751	0.957292	ARDL(2, 0)
3	26.140110	1.133757	0.767323	1.012294	0.961115	ARDL(4, 2)
16	25.008318	-1.12552	-0.80489	-1.01924	0.959934	ARDL(1, 4)
10	23.003232	1.125202	0.896181	1.049288	0.957949	ARDL(3, 0)
19	21.973224	1.123327	-0.94011	1.062595	0.956754	ARDL(1, 1)
14	22.890507	1.118157	0.889135	1.042243	0.957651	ARDL(2, 1)
6	26.638082	-1.10238	0.690142	0.965735	0.960667	ARDL(3, 4)
20	20.553613	1.097101	0.959688	1.051552	0.954371	ARDL(1, 0)
9	23.244671	1.077792	0.802966	0.986695	0.956985	ARDL(3, 1)
5	23.016996	1.063562	0.788737	0.972465	0.956369	ARDL(4, 0)
4	23.254091	1.015881	0.695251	0.909601	0.955291	ARDL(4, 1)

Table 3. Optimal Lag Length Selection for IMPORTS2 Model

Model	LogL	AIC*	BIC	HQ	Adj. R-sq	Specification
15	25.289623	-0.868964	-0.71453	-0.810372	0.860895	ARDL(2, 0)
20	24.015252	-0.857765	-0.74194	-0.813821	0.856654	ARDL(1, 0)
14	25.630508	-0.842062	-0.649019	-0.768821	0.859700	ARDL(2, 1)
10	25.326814	-0.829666	-0.636623	-0.756426	0.857950	ARDL(3, 0)
19	24.275560	-0.827574	-0.67314	-0.768982	0.855017	ARDL(1, 1)
5	26.207707	-0.824804	-0.593153	-0.736916	0.859780	ARDL(4, 0)
13	26.148926	-0.822405	-0.590754	-0.734517	0.859443	ARDL(2, 2)
18	24.703470	-0.804223	-0.61118	-0.730983	0.854289	ARDL(1, 2)
9	25.639656	-0.801619	-0.569967	-0.71373	0.856490	ARDL(3, 1)
4	26.595520	-0.799817	-0.529557	-0.697281	0.858696	ARDL(4, 1)
12	26.347675	-0.789701	-0.519441	-0.687165	0.857259	ARDL(2, 3)
8	26.172989	-0.782571	-0.512311	-0.680035	0.856237	ARDL(3, 2)
3	26.926119	-0.772495	-0.463626	-0.65531	0.857189	ARDL(4, 2)
17	24.750443	-0.765324	-0.533673	-0.677436	0.851186	ARDL(1, 3)
7	26.379710	-0.750192	-0.441324	-0.633008	0.853968	ARDL(3, 3)
11	26.364252	-0.749561	-0.440693	-0.632377	0.853876	ARDL(2, 4)
2	27.225527	-0.743899	-0.396422	-0.612067	0.855397	ARDL(4, 3)
16	24.752898	-0.724608	-0.454348	-0.622072	0.847658	ARDL(1, 4)
6	26.405588	-0.710432	-0.362955	-0.5786	0.850476	ARDL(3, 4)
1	27.281531	-0.705369	-0.319283	-0.558888	0.852028	ARDL(4, 4)

Table 4 and 5 exhibit ARDL bounds test findings for ARDL (4,3) and ARDL (2,0) models respectively. As seen from Table 4, there is cointegration relationship between globalization (GLOBALIZATION) and imports of goods and services (IMPORTS1) at least at %5 significance level for actual sample size. Also as indicated by Table 5, there is cointegration association between globalization (GLOBALIZATION) and imports of goods and services (IMPORTS2) at all significance levels for actual sample size. As a result, globalization and imports of goods and services move together in the long-run in Türkiye over the estimation period.

Test Statistic	Signif.	Lower Limit	Upper Limit
F-statistic: 5.791459			
Asymptotic: n=1000			
k: 1	10%	3.02	3.51
	5%	3.62	4.16
	2.5%	4.18	4.79
	1%	4.94	5.58
Actual Sample Size:		Finite Sample:	

32		n=35	
	10%	3.223	3.757
	5%	3.957	4.53
	1%	5.763	6.48
		Finite Sample:	
		n=30	
	10%	3.303	3.797
	5%	4.09	4.663
	1%	6.027	6.76

Table 5. ARDL Bounds Test Results for ARDL(2, 0) Model (i.e., IMPORTS2 Model)

Test Statistic	Signif.	Lower Limit	Upper Limit
F-statistic:			
6.438558			
		Asymptotic:	
		n=1000	
	10%	3.02	3.51
k: 1	5%	3.62	4.16
	2.5%	4.18	4.79
	1%	4.94	5.58
Actual Sample		Finite Sample:	
Size: 53		n=55	
	10%	3.143	3.67
	5%	3.79	4.393
	1%	5.377	6.047
		Finite Sample:	
		n=50	
	10%	3.177	3.653
	5%	3.86	4.44
	1%	5.503	6.24

Table 6 below displays long-run coefficient estimations for ARDL(4,3) model (i.e., IMPORTS1 model). We got statistically significant positive coefficient estimation at %1 significance level. If globalization level increases by one percent then imports of goods and services in terms of constant 2015 US\$ goes up by 5.24 percent in Turkiye over the period of 1987-2022.

Table 6. Long-run Coefficient Estimations for ARDL(4,3) Model (i.e., IMPORTS1 Model)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
GLOBALIZATION	5.24515	1.624591	3.228597	0.0037
CONSTANT	3.997958	6.982508	0.572568	0.5725
EC = IMPORTS1 - (5.2452*GLOBALIZATION + 3.9980)				

Table 7 below shows long-run coefficient estimations for ARDL(2,0) model (i.e., IMPORTS2 model). We obtained statistically significant positive coefficient estimation at %1 significance level. If globalization level improves by one percent then percentage share of imports of goods and services in GDP goes up by 2.03 percent in Türkiye over the period of 1970-2022.

Table 7. Long-run Coefficient Estimations for ARDL(2,0) Model (i.e., IMPORTS2 Model)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
GLOBALIZATION	2.031955	0.28394	7.156288	0.0000
CONSTANT	-5.208955	1.156471	-4.504182	0.0000
EC = IMPORTS2 - (2.0320*GLOBALIZATION - 5.2090)				

In Table 8 and 9 we reported ECM regression estimation results for ARDL(4,3) model (i.e., IMPORTS1 model) and ARDL(2,0) model (i.e., IMPORTS2 model) respectively. Coefficient estimations of ECM terms for both models are statistically significant and take negative signs at %1 significance level.

Table 8. ECM Regression Results for ARDL(4, 3) Model (i.e., IMPORTS1 Model)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(IMPORTS1(-1))	-0.275634	0.157661	-1.748267	0.0938
D(IMPORTS1(-2))	0.028932	0.179752	0.160955	0.8735
D(IMPORTS1(-3))	0.316288	0.166128	1.903885	0.0695
D(GLOBALIZATION)	0.041084	1.233385	0.03331	0.9737
D(GLOBALIZATION(-1))	-3.922346	1.305435	-3.004628	0.0063
D(GLOBALIZATION(-2))	-2.530373	1.275432	-1.983934	0.0593
ECM(-1)	-0.342838	0.078891	-4.34571	0.0002
R-squared	0.439878	Mean dependent var		0.061711
Adjusted R-squared	0.305449	S.D. dependent var		0.13517
				-
S.E. of regression	0.11265	Akaike info criterion		1.338422
				-
Sum squared resid	0.317251	Schwarz criterion		1.017792
				-
Log likelihood	28.41475	Hannan-Quinn criter.		1.232142
Durbin-Watson stat	1.694779			

Table 9. ECM Regression Results for ARDL(2, 0) Model (i.e., IMPORTS2 Model)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(IMPORTS2(-1))	0.190594	0.121724	1.565791	0.1238
ECM(-1)	-0.386423	0.086183	-4.483756	0.0000
R-squared	0.240763	Mean dependent var		0.041434
Adjusted R-squared	0.225876	S.D. dependent var		0.162865
				-
S.E. of regression	0.143296	Akaike info criterion		1.010804
Sum squared resid	1.04722	Schwarz criterion		0.936453
				-
Log likelihood	28.7863	Hannan-Quinn criter.		0.982212
Durbin-Watson stat	1.89331			

Moreover we implemented diagnostic tests for ARDL(4,3) and ARDL(2,0) models. Jerque-Bera normality test findings are given in Figure 1 and 2 below for ARDL(4,3) and ARDL(2,0) models. As seen from the test results,

residuals of ARDL(4,3) model has normal distribution but not so for ARDL(2,0) model.

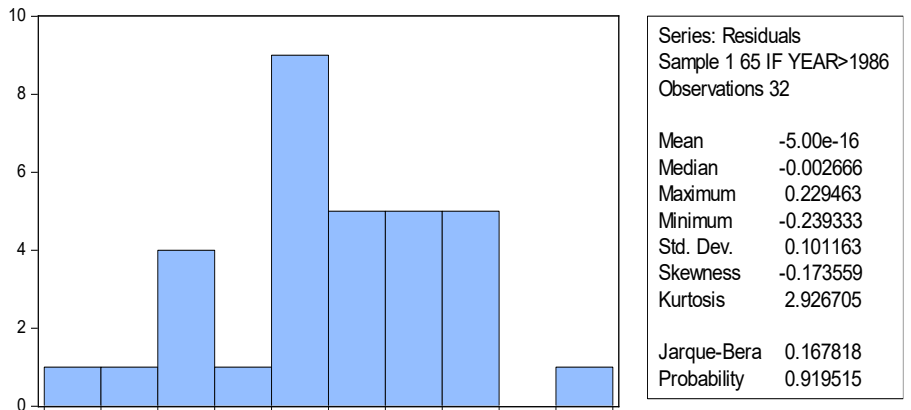


Figure 1. Jarque-Bera Normality Test for ARDL(4,3) Model (i.e., IMPORTS1 Model)

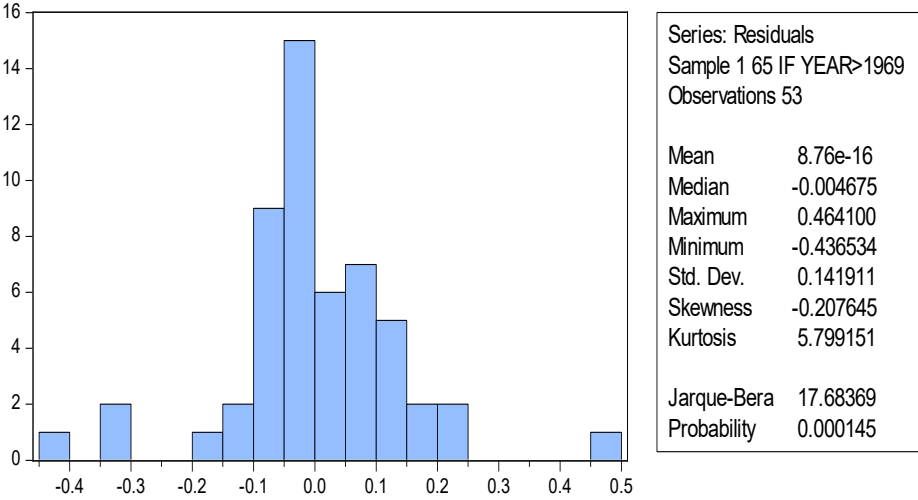


Figure 2. Jarque-Bera Normality Test for ARDL(2,0) Model (i.e., IMPORTS2 Model)

In order to check autocorrelation problem of our models we conducted Breusch-Godfrey serial correlation LM test and the findings are shown in Table 10 and 11. Autocorrelation test results hint that none of our models suffer from autocorrelation problem.

Table 10. Breusch-Godfrey Autocorrelation Test for ARDL(4, 3) Model (i.e., IMPORTS1 Model)

F-statistic	1.193417	Prob. F(2,21)	0.3229
		Prob. Chi-Square(2)	
Obs*R-squared	3.265885		0.1954

Table 11. Breusch-Godfrey Autocorrelation Test for ARDL(2,0) Model (i.e., IMPORTS2 Model)

F-statistic	0.471722	Prob. F(2,47)	0.6268
		Prob. Chi-Square(2)	
Obs*R-squared	1.042947		0.5936

Harvey test for heteroskedasticity was performed and the findings are given in Table 12 and 13. As seen from Table 12 and 13, the both models have homoskedastic variances.

Table 12. Harvey Heteroskedasticity Test for ARDL(4, 3) Model (i.e., IMPORTS1 Model)

F-statistic	1.211469	Prob. F(8,23)	0.3358
		Prob. Chi-Square(8)	
Obs*R-squared	9.486678		0.3029
Scaled explained SS	6.915729	Prob. Chi-Square(8)	0.5458

Table 13. Harvey Heteroskedasticity Test for ARDL(2,0) Model (i.e., IMPORTS2 Model)

F-statistic	1.138448	Prob. F(8,23)	0.3428
		Prob. Chi-Square(8)	
Obs*R-squared	3.453439		0.3269
Scaled explained SS	4.495337	Prob. Chi-Square(8)	0.2127

Finally we conducted Ramsey RESET test for model misspecification and the results are displayed in Table 14 and 15. The findings of Ramsey RESET test imply that none of our models are misspecified.

Table 14. Ramsey RESET Test for ARDL(4, 3) Model (i.e., IMPORTS1 Model)

	Value	df	Probability
t-statistic	0.025328	22	0.9800
F-statistic	0.000642	(1, 22)	0.9800

Table 15. Ramsey RESET Test for ARDL(2,0) Model (i.e., IMPORTS2 Model)

	Value	df	Probability
t-statistic	0.028044	48	0.9777
F-statistic	0.000786	(1, 48)	0.9777

RESULTS AND DISCUSSION

This study tries to reveal long-run association between globalization and imports of goods and services in Türkiye. The study employs ARDL method for cointegration analysis and estimation of long-run coefficients. Two distinct measures of imports of goods and services were utilized for the different time periods (i.e., periods of 1987-2022 and 1970-2022). In order to find out integration order of our variables, we implemented Augmented Dickey-Fuller unit root test and the test findings disclosed that each one of our variables is integrated order one. After checking stationarity status of the variables, cointegration analyses were performed by using ARDL bounds test. The results of ARDL bounds test indicate the presence of cointegrating relationship between globalization and imports of goods and services over the estimation periods of 1987-2022 and 1970-2022 in Türkiye. Put it differently, globalization and imports of goods and services move together in the long-run in Türkiye during the estimation periods. For the long-run, we obtained positive statistically significant coefficient estimations for two different measures of imports of goods and services. For the first indicator of imports of goods and services, if globalization level jumps by one percent then imports of goods and services in terms of constant 2015 US\$ increases by 5.24 percent in Türkiye over the period of 1987-2022. For the second indicator of imports of goods and services, if globalization level expands by one percent then percentage share of imports of goods and services in GDP augments by 2.03 percent in Türkiye over the period of 1970-2022. Also

diagnostic test results reveal that our models are free from the problems of non-normality, autocorrelation, heteroscedasticity, and model misspecification except the non-normal distribution of residuals in the second model (i.e., IMPORTS2 model).

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Faith, Family and Enterprise in the Modern World: An Investigation into Contemporary Muslim Societies

Ömer Faruk ALADAĞ¹

1- Doç. Dr.; İnönü Üniversitesi, İktisadi ve İdari Bilimler Fakültesi, Uluslararası Ticaret ve İşletmecilik Bölümü. omer.aladag@inonu.edu.tr, ORCID No: 0000-0002-5176-679X

ABSTRACT

Entrepreneurship in Muslim societies is a distinct form of enterprise where religious values, family dynamics, and business endeavors converge. This study offers a conceptual, literature-based examination of how Islamic faith and family context jointly shape entrepreneurial motivations and practices. We discuss the foundational Islamic principles that inform ethical decision-making and opportunity selection. We then explore the role of the family as both an economic unit and a source of values guiding business conduct. Drawing on entrepreneurship theory, family business models, and the lens of Islamic ethics, we synthesize how these facets intersect to influence entrepreneurial behavior. The study identifies key tensions between tradition and modernity, and between religious principles and pragmatic business pressures and how entrepreneurs navigate these dichotomies. In conclusion, we summarize the contributions of this integrative perspective, discuss implications for academic theory at the intersection of religion and entrepreneurship and propose directions for future research.

Keywords – Entrepreneurship, Family Business, Culture, Islamic Ethics, Halal Economy

INTRODUCTION

Entrepreneurship in Muslim-majority contexts has gained global prominence amid the rising economic influence of Muslim communities. With over a billion Muslims worldwide, accounting for roughly a quarter of the global population (Grim & Hsu, 2011), the collective market power of Muslim consumers and producers has expanded rapidly. Many Muslim-majority countries have young populations, expanding middle classes, and policy initiatives towards innovation, which contribute to increasing entrepreneurial activity (Hassan, 2022). The halal economy, encompassing Shariah-compliant foods, finance, fashion, and pharmaceuticals, is now a key arena for new ventures (Siddique et al., 2022). Likewise, Islamic financing methods are emerging to meet the needs of Muslim consumers who seek interest-free and ethical financial services (Alshater et al., 2021). Notably, family-owned firms dominate the private sector in many of these economies. For example, family businesses contribute an estimated majority of GDP and employment in the Gulf region (Samara, 2021). This landscape underscores the importance of understanding entrepreneurship not just as an individual endeavor, but as one deeply embedded in faith and family

contexts. Islam has a rich historical association with commerce and entrepreneurship. Trade and business were critically important in early Islamic societies and commercial enterprise was seen as a desirable pursuit when conducted ethically. The Prophet Muhammad's own experience as a merchant and the prominence of merchant families in Islamic history have cemented a cultural respect for entrepreneurial initiative (Hoque et al., 2014). Today, this legacy continues as Muslim entrepreneurs around the world strive to balance business success with religious and family obligations. This study examines how faith, family and commercial activity intertwine in the context of Muslim entrepreneurship.

Entrepreneurship in Muslim families emphasizes the intersectionality of faith, family, culture and commerce in shaping entrepreneurial behavior. According to this perspective, a Muslim entrepreneur's identity is multifaceted. They are simultaneously members of a family, adherents of a faith, participants in a culture, and actors in a market. These overlapping identities influence opportunity recognition, management style and definition of success for individuals (Yamamura et al., 2022). One critical aspect of this definition is viewing the family as an economic and social unit in Islamic thought. Islamic teachings place strong emphasis on family responsibility, cohesiveness, and mutual support. The family in Islam is not only a source of emotional support but also a vehicle for economic cooperation and collective well-being (Alrubaishi et al., 2021). For example, providing for one's family is considered a moral duty and even a form of worship in Islamic tradition (Ginting-Carlström & Chliova, 2023). Therefore, entrepreneurship in Muslim families can be seen as a phenomenon where entrepreneurial initiative is deeply embedded in family structures and guided by Islamic principles.

Academic inquiry into entrepreneurship has historically paid limited attention to the roles of religion and family, treating entrepreneurs as isolated economic actors. This gap is especially pronounced regarding Muslim entrepreneurs, for whom faith and family frequently play defining roles in business decisions. The problem statement guiding this study is therefore: How do Islamic faith and family context together shape the nature and outcomes of entrepreneurship in Muslim communities? In particular, this study explores the following research question: How do family dynamics influence business practices in Muslim entrepreneurial ventures? By addressing this question, the study aims to explain the complex interplay between spiritual values, cultural norms and family relationships in shaping entrepreneurial activity.

This study is conceptual and based on literature. It builds arguments grounded in existing research and documented practices. The first section examines key theoretical frameworks and Islamic principles and how they shape entrepreneurial conduct. Next, the dynamics of family involvement in Muslim enterprises is explored. Then we synthesize insights from the prior

sections to explain the interplay of religion, culture and family in shaping entrepreneurial trajectories. Finally, we provide a summary of the study's key contributions and reflect on the broader implications for theory and research.

THEORETICAL FRAMEWORKS

To analyze entrepreneurship in Muslim families, this study integrates entrepreneurship theory and family business models with perspectives from Islamic economics and ethics. For example, effectuation theory emphasizes how entrepreneurs start with available means and networks to co-create new opportunities (Xu et al., 2022). In a Muslim family context, the available means often include family financial capital, kinship networks and community trust. And the effectuation process may be guided by a logic of conforming to religious norms since religious values may be influential in entrepreneurial behavior (Henley, 2017). The resource-based view, which highlights unique firm resources as keys to competitive advantage (Wernerfelt, 1984), can be extended to consider intangible resources like a family's reputation for integrity or the divine blessing that stakeholders perceive in religious business owner's earnings. Meanwhile, family business theories contribute insights about long-term orientation and value-driven management. Stewardship theory posits that owner-managers act as stewards, prioritizing the long-term welfare of the firm and its stakeholders over short-term self-interest (Davis et al., 1997). This aligns closely with Islamic concepts of trust and accountability, wherein business owners see themselves as caretakers of an asset entrusted by God for the benefit of family and community. The concept of socioemotional wealth (SEW) further explains why family firms might make decisions that preserve family values and legacy at the expense of immediate profit (Swab et al., 2020).

Complementing these conventional theories, Islamic economics provides an alternative framework that embeds moral and social considerations into economic activities, guided by the objectives of Shariah such as justice, equity, and welfare (Shinkafi & Ali, 2017). Through this lens, entrepreneurship is not only about wealth creation but also about contributing to social good and avoiding harm. Concepts from Islamic business ethics like the prohibition of interest and exploitative uncertainty and the mandate of zakat serve as normative criteria for business conduct (Abuznaid, 2009).

A primary filter for business decision-making in Islam is the dichotomy of halal versus haram. Muslim entrepreneurs take these categories seriously in choosing their business activities and partnerships (Salaheldeen et al., 2022). The implications are wide-ranging: the industry, product, process, and financing of a venture all must be scrutinized for Shariah compliance. This commitment to halal permeates not just what is

sold but how the business is run; earning income through fraud, coercion, or corruption would render profits haram even if the products themselves are halal. In effect, the halal/haram principle acts as a foundational ethical boundary for Muslim entrepreneurs, shaping their strategic domain.

Beyond the binary of permitted and forbidden, many Muslim entrepreneurs strive for barakah (divine blessing) that brings added growth, goodness, and sustainability to one's wealth. It is believed that money earned righteously and spent ethically will be blessed and benefit its holder (Alsaad et al., 2021). In a practical entrepreneurial context, this translates to an orientation towards sustainable and ethical profit rather than pure profit maximization. Business owners guided by this ethos may deliberately choose strategies that prioritize long-term blessings over short-term gains (Lumpkin et al., 2010). Muslim entrepreneurs often exhibit a strong sense of trust in God's provision, which can make them patient and resilient in the face of business uncertainties (Gondal et al., 2024). In summary, the pursuit of barakah encourages Muslim entrepreneurs to align their business practices with spiritual values, influencing everything from pricing and investment to definitions of success and time horizons.

Islamic ethics places great weight on conducting all affairs with justice (Al-Khatib et al., 2023). For entrepreneurs, this translates into a commitment to fairness towards customers, employees, partners, and society at large. Justice demands honest measurement and pricing, fulfillment of contracts, and avoidance of exploitation. For example, a business owner guided by justice will pay employees fair wages and not violate labor rights, will ensure products are safe and as described, and will negotiate fairly without coercion or fraud.

Fulfilling one's promises and building trust are cornerstones of Islamic business ethics (Wijaya, 2023). Among family and community networks, reputation for keeping one's word can be more important than legal enforcement. A family business that has built trust over years may enjoy easier access to business opportunities or credit from suppliers based on the strength of personal credibility (Deferne et al., 2023). Upholding trust also relates to safeguarding any responsibility one is given. For example, if family members pool their money for a venture, the managing entrepreneur should manage the capital with integrity and responsibility.

Through these principles Islamic faith shapes the ethical foundation of a Muslim entrepreneur's decision-making. Each principle can be seen as a thread in a moral fabric that guides how business is initiated, financed, and conducted daily. It is important to note that individual adherence can vary. However, at a conceptual level, these tenets collectively create a value-based framework that distinguishes Muslim entrepreneurship.

FAMILY DYNAMICS IN MUSLIM ENTREPRENEURIAL VENTURES

Family is the fundamental social structure in Muslim societies, and this centrality naturally extends into the realm of business. In Muslim family enterprises, family members are not just shareholders or employees; they are part of a tight-knit social unit whose values, relationships, and long-term interests deeply influence the business.

Across diverse Muslim cultures, the family unit is valued as the primary source of identity, support, and obligation. It is common for entrepreneurs to seek initial funding from relatives, to involve siblings or spouses as co-founders or partners, and to employ extended family members in various roles. This practice is underpinned by the logic of trust and mutual responsibility. In environments where external institutions may be less developed, having family involved in business provides a reliable support system and mitigates risk (Maleki et al., 2023). The social capital embedded in family relationships becomes a critical resource for the venture. Additionally, the cultural centrality of family acts as an informal regulatory mechanism, encouraging entrepreneurs to maintain credibility and fairness in their dealings (Sageder et al., 2018).

Gender roles in Muslim family enterprises are shaped by religious guidelines, cultural customs and evolving socio-economic realities. Many Muslim societies have been traditionally patriarchal, but this picture is neither uniform across all Muslim communities nor static over time (Mitra & Basit, 2021).

There is a rich yet under-appreciated history of women's entrepreneurship in Islamic societies – dating back to Khadijah bint Khuwaylid, a successful merchant and the wife of Prophet Muhammad (SAW), who is often cited as a role model for Muslim businesswomen (Cevherli, 2022). Despite such precedents, conservative interpretations of Muslim communities culturally constrained women's public economic engagement. Today, these roles are evolving rapidly. Across the Muslim world, women are increasingly pursuing higher education and professional careers, and some are stepping into entrepreneurial and leadership positions (Essers & Benschop, 2009). Women often bring unique strengths to entrepreneurship, such as better access to female customer segments or more collaborative leadership styles that can complement traditional approaches (Orser & Elliot, 2015). Importantly, women in Muslim family businesses may also drive innovation; research indicates that involving women in leadership correlates with increased emphasis on social responsibility and ethical practices, aligning well with Islamic business values (Khushk et al., 2022). Nonetheless, women's entrepreneurship can face various barriers.

The extent of female participation in Muslim entrepreneurship is influenced by local cultural norms and interpretations of religion. It is important to distinguish between Islamic teachings and cultural practices. Islam grants women rights to own property, run businesses, and retain earnings, as evidenced by early Muslim women engaging in trade (Cevherli,

2022). However, conservative cultural interpretations in some regions have historically limited these rights in practice. However, there is a discernible shift as more Muslims emphasize gender egalitarianism: the notion that men and women are spiritual equals and can complement each other in various roles (Kucinskas, 2010). This perspective combined with socio-economic change has led to greater acceptance of women entrepreneurs in the Islamic world. Family support is a crucial factor for female entrepreneurs. When their families are supportive, women are far more likely to thrive in entrepreneurship, using family connections and resources to their advantage (Powell & Eddleston, 2013). Overall, Muslim women's participation in entrepreneurship is not uniform. It ranges widely across different countries and communities. But the trend in many places is towards increased involvement, as educational empowerment and reinterpretation of religious norms slowly reshape cultural expectations (Jouili & Amir-Moazami, 2006).

A recurring theme for entrepreneurs in family-centric Muslim contexts is the challenge of balancing family responsibilities with business demands. For women entrepreneurs, this often means navigating multiple roles that involve venture management and house related duties (Eddleston & Powell, 2012). The Islamic ethos of mutual support within families facilitates these arrangements, as it is seen as virtuous for family members to help one another fulfill both family and economic roles (Welsh et al., 2021).

ENTREPRENEURSHIP AT THE INTERSECTION OF FAMILY AND FAITH

The exploration of faith foundations and family dynamics in the previous sections reveals a portrait of Muslim entrepreneurship that is deeply embedded in religious-cultural context. Muslim entrepreneurs operate at the intersection of multiple identities and value systems. They are believers adhering to divine guidelines, business actors responding to market forces and members of a family with cultural norms. This intersection creates a unique space for entrepreneurial action, characterized by both constraints and creative possibilities.

One insight is that religious belief, cultural context and family structure are not separate for Muslim entrepreneurs. They are mutually reinforcing dimensions of their entrepreneurial activities. Despite differences, what is common is the embeddedness of the entrepreneur in a web of relationships and norms. This aligns with the concept of social embeddedness in entrepreneurship theory, which posits that entrepreneurs are not isolated agents but are rooted in social networks that shape their behavior (Korsgaard et al., 2022). In Muslim contexts, religion and family provide two major pillars of that social network that infuse entrepreneurship with moral guidelines from religion and family support. This interplay also affects entrepreneurial outcomes and definitions of success. Profitability and growth matter for Muslim family businesses but they also emphasize

achieving divine blessing as a key outcome (Sidek et al., 2018). This orientation shows how religious values can redirect the trajectory of family business in ways that deviate from classical profit-maximization models. In analytical terms, we see a confluence of multiple institutional logics – the market logic, the family logic, and the religious logic (Gregori et al., 2019). Entrepreneurs navigate and reconcile these logics, sometimes blending them into a personal mission. For example, a business owner might determine their venture's mission as serving God (faith logic) by serving the community (family/community logic) through market solutions (commercial logic).

Operating under the combined influence of faith, family, and market forces inevitably generates tensions as well as synergies. Muslim entrepreneurs often find themselves balancing dichotomies – navigating between seemingly opposing demands of tradition and modernity, or between religious principles and pragmatic business considerations. The key is often finding ways to update business models while preserving core values. Families that hold open dialogues and educate each other can blend the wisdom of elders with the innovative spirit of young generations. Another major dichotomy is faith versus pragmatism. This tension manifests when strict adherence to religious principles seems to constrain business logic. For instance, a religious entrepreneur might struggle with whether to borrow money to seize a growth opportunity, but faith adherence forbids *riba*. Or raising prices in a high-demand situation could be profitable, but a Muslim entrepreneur may hold back if it's seen as unfair or exploitative, clashing with Islamic ethics of justice. In marketing, using alluring imagery or exaggeration may attract customers but it might conflict with modesty and honesty values. The way entrepreneurs navigate these tensions often involves creative problem-solving and trade-offs. At times, faith and pragmatism can work in synergy as well. The growing halal markets and Islamic finance sector illustrate instances where religious compliance opens up new opportunities rather than restricting them. By sticking to halal standards, businesses have tapped into a fast-expanding global consumer segment that values those standards (Azam & Abdullah, 2020). In such cases, what is a religious obligation also becomes a unique selling proposition. Likewise, operating ethically and generously may lead to community support and brand loyalty. Thus, while conflicts exist, faith-based principles, if strategically applied, can enhance resilience and trust. In addition, having the support of faith and family can be emotionally relieving. During setbacks, the belief in God's wisdom can provide comfort and reduce stress by accepting that outcomes are ultimately in God's hands after one's best effort. Family can offer a safety net and encouragement, making the entrepreneurial journey less lonely than it might be for a solo founder. In summary, Muslim family entrepreneurs continuously navigate a landscape of dualities while holding onto principles while adapting to market realities.

These tensions require compromises, but they also trigger innovation – for instance, developing new Shariah-compliant financial products or unique business models that balance ethical commitments with competitive performance. The ability to manage these dynamics is what often distinguishes successful, enduring Muslim family businesses. This integrated perspective is increasingly valuable in a world seeking more sustainable and ethically grounded forms of enterprise.

CONCLUSION

This study has unearthed the intertwined roles of faith and family in shaping entrepreneurship within Muslim contexts. Through a conceptual exploration, we identified that Islamic religious principles such as adherence to halal and avoidance of haram, seeking divine blessing, prohibiting interest and exploitation and upholding justice and trust form a moral framework that guides entrepreneurial behavior from opportunity selection to daily management. Simultaneously, the family's influence manifests in resource mobilization, decision-making patterns, gender roles and intergenerational succession planning. Our analysis shows that faith and family do not operate in isolation; rather, they reinforce each other to create a unique entrepreneurial ethos. Muslim family entrepreneurs often pursue business objectives that align with both economic rationality and religious-family values and result in enterprises that may prioritize ethical consistency alongside profitability. The study's contribution lies in synthesizing insights from entrepreneurship theory, family business studies and Islamic ethics. By doing so, it highlights how religious and family context can significantly alter the motivations, strategies and definitions of success in entrepreneurship. This challenges the universality of Western-centric models that assume profit-maximization and individualism and offers a perspective where moral purpose and collective well-being are integral to entrepreneurial activity.

The insights from this study have several implications for research and theory. First, they underscore the importance of integrating cultural and religious variables into entrepreneurship and family business research. Traditional theories in these fields may need refinement when applied to non-Western and Islamic based settings. Researchers should consider developing constructs or theoretical models that encapsulate concepts like religious capital which have emerged here as influential yet under-theorized resources. Second, the study's findings align with and extend the idea of multiple embeddedness. Entrepreneurs are embedded not just in social networks, but in value systems and institutional logics. This implies that scholars using institutional theory or social capital theory should account for the role of religious institutions and family institutions as key players in the entrepreneurial ecosystem. Third, the interplay of faith and family offers an opportunity to enrich the concept of socioemotional wealth (SEW) in family

firms. While SEW traditionally includes family control, identity, and emotional attachment, in Muslim families, religious fulfillment may be an additional component of the wealth that families seek from their businesses. Incorporating these elements could refine theoretical models of family firm behavior in various cultural settings. Moreover, the study highlights the need for cross-disciplinary collaboration. Insights from theology, Islamic studies, and anthropology can inform business research, leading to more nuanced frameworks such as an Islamic entrepreneurship theory that stands alongside existing paradigms. Academically, this study advocates for a more pluralistic understanding of entrepreneurship – one that appreciates how global diversity in belief systems and family structures leads to diverse entrepreneurial logics.

Given the conceptual nature of this inquiry, it opens several avenues for future empirical and theoretical research. One key recommendation is for comparative studies. Researchers could compare Muslim family entrepreneurs with non-Muslim or more secular family entrepreneurs to isolate what differences can be attributed to Islamic influences versus broader family business patterns. Such studies, whether qualitative case comparisons or large-sample analyses, would help validate which of the distinctive behaviors outlined in this study are truly tied to faith-based values. Another avenue is in-depth qualitative research within Muslim family firms across different regions such as Middle East, South Asia, Southeast Asia or minority Muslim communities in the West to explore how universal the principles are and how they are adapted to local contexts. Ethnographic studies or life-history interviews could, for instance, reveal how entrepreneurs negotiate conflicts between religious advice from clerics and market advice from consultants, or how female entrepreneurs in conservative families gradually change mindsets over time. Intergenerational studies are also important: scholars might examine how second or third-generation family members in Muslim businesses reinterpret or shift the balance of faith and pragmatism, especially if they have foreign education or global exposure. Additionally, future research could explore the outcomes associated with the faith-family entrepreneurial model. For instance, do businesses run on Islamic ethical principles enjoy higher trust and loyalty from stakeholders and does that translate into better financial resilience or longevity? Conversely, are there opportunity costs in terms of growth and innovation for strictly adhering to certain principles (e.g., slower scalability due to avoiding interest-based funding)? These questions could be tackled with mixed-method approaches, combining surveys and case studies. There is also room to expand research on Muslim women entrepreneurs as a subset, investigating how religious identity interacts with gender to shape their entrepreneurial journeys, and what support systems or policy interventions can help them balance business and family expectations. Finally, as the digital age creates new platforms and markets, research might look at digital

entrepreneurship among Muslims. By pursuing these research avenues, scholars and practitioners alike can gain insights not only relevant to Muslim contexts but also improving the global conversation on ethical and inclusive entrepreneurship.

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The Harmonic Approach in Hubert Laws’ Interpretation of Pensativa

Yener BAYARSLAN

ABSTRACT

Improvisation has persisted as an integral component of music throughout history, assuming different roles in each period. In the Classical era, improvisation served as a demonstration of virtuosity, intertwining the identities of composer and performer. However, with the 19th century, the authority of the written score increased, and the space for improvisation diminished.

This study aims to examine Hubert Laws' interpretation of Clare Fischer's *Pensativa* from a harmonic perspective. Since the 1950s, the flute in jazz has evolved beyond an orchestral color instrument to become a solo instrument in modern jazz. Hubert Laws is an artist who combines classical music training with jazz performance experience, and his performances provide examples of how the flute can be employed in both melodic and harmonic contexts within the jazz repertoire.

In this research, a 32-measure improvisational section of Laws' *Pensativa* performance (time interval: 1:45–2:35) was analyzed. The analysis indicates that while working with chord tones, the artist utilizes natural and altered extensions (e.g., 9ths, 11ths, 13ths) and enriches melodic expression through chromatic and diatonic transitions. Furthermore, it was observed that modal scales such as Mixolydian, Dorian, and whole-tone are employed, and that leading tones combined with chromatic connections contribute to the fluidity of the improvisation. The findings demonstrate that Laws' improvisations pay attention not only to harmonic coherence but also to independent melodic expression.

In conclusion, this study is significant for exploring the improvisational potential of the flute in jazz. Hubert Laws' interpretation of *Pensativa* provides examples of the flute's use as a solo instrument in the jazz repertoire and offers a valuable resource for jazz education and performance studies.

Keywords: Hubert Laws, Pensativa, jazz flute, improvisation, harmonic analysis.

INTRODUCTION

Improvisation has persisted as an integral component of music throughout history, assuming different roles in each period. In the Classical era, improvisation served as a demonstration of virtuosity, intertwining the identities of composer and performer. However, with the 19th century, the authority of the written score increased, reducing the role of improvisation.

The role of improvisation in the learning process extends beyond the mere development of technical skills. This process also enables students to explore their creative potential (Ede, 2025: 10). Modern music education emphasizes the cultivation of creativity, positioning improvisation as a domain that simultaneously supports individuals' cognitive, emotional, and physical abilities. Improvisational practices enhance the capacity to shape and express musical ideas in real time, while also playing a critical role in the formation of musical identity. The artistic ideas generated during this process reflect the technical and emotional designs of the performer, constituting the essence of improvisation (Özkeleş, 2016: 2395).

Güleç and Çilden (2016) note that improvisation activities foster a deeper connection with music during instrumental training. They emphasize that individuals' instrumental skills develop not only technically but also from emotional and cognitive perspectives. Improvisation deepens the processes of listening to, understanding, and internalizing music, thereby facilitating more meaningful musical communication among individuals.

Bailey (2011: 12–13) categorizes improvisation into two main types: “genre-specific” and “non-genre-specific.” Genre-specific improvisation adheres to the stylistic and characteristic features of a particular musical genre. For instance, improvisations based on jazz, flamenco, or Baroque music draw upon the tonal and harmonic structures of their respective genres.

Genre-specific improvisation is performed based on the cultural and theoretical components of a musical style. To improvise effectively within a specific genre, one must understand its tonal and harmonic structure, traditional style, and cultural context. In some traditional musical systems, however, improvisation can also be learned intuitively, through listening and imitation, beyond formal theoretical knowledge. This provides a valuable perspective for understanding the expressive forms of improvisation across different musical genres. Planning scales—such as tonal, modal, or makam-based sequences—at the cognitive level prior to performance is crucial to ensure that the improvisation aligns with the genre and style of the piece. Each degree of the chosen scale guides and develops the rhythmic, harmonic, and melodic structure of the improvised melody in unique ways (Özkeleş, 2017: 176, 186).

Regarding genre-specific improvisation, Özkeleş (2017: 65) highlights that Turkish makam music scales, presented within the 12-tone equal temperament system, are significant for analyzing, performing, interpreting, composing, and contributing to improvisation of national and international works. In a subsequent study (2023), he demonstrates that elements of Turkish makam music can be innovatively integrated into genre-specific improvisation (such as *taksim*s and openings), producing makam-based harmonic sequences from anarmonic chords to programmed chords within traditional pitch structures.

Since the Baroque period, improvisation, particularly through basso continuo practice, has been a structural necessity that required performers' creative input (Dolan, 2013). In the Classical era, soloists' spontaneous concerto cadenzas created a space where the identities of composer and performer intertwined (Rosen, 1998). While Beethoven continued this tradition, he also directed improvisation toward written form, establishing a balance between spontaneity and structure and transforming the functional role of improvisation (Lockwood, 2005). In the Romantic period, virtuoso composers such as Liszt and Chopin placed improvisation at the center of dramatic expression and stage persona, making it a symbol of artistic authority (Hamilton, 2008).

Non-genre-specific improvisation focuses more on freedom and on transcending traditional musical structures. Often referred to as free improvisation, this form shapes musical creativity according to alternative aesthetic concerns. Badoğlu and Özkeleş (2022: 282) emphasize that jazz musicians maintain both creative and analytical perspectives. They develop their improvisational skills not only through their own practice but also by listening to and analyzing other musicians. This approach enables them to be both proficient composers and attentive listeners, adding depth to the improvisational process.

Structurally, non-genre-specific improvisation requires real-time decision-making, flexible thinking, reconfiguring melodic-harmonic relationships, and creatively transforming the existing musical context. These skills enhance musicians not only in performance but also at structural and analytical levels. Consequently, the inherent flexibility and diversity potential of improvisation provides a natural and rich foundation for the theoretical

grounding and practical application of reharmonization, which involves revisiting harmonic structures from multiple perspectives.

Reharmonization—the process of creatively reorganizing the existing harmonic structure to give a work a new musical identity—is applied across a wide range of genres, from international art music to jazz, ethnic music, and popular music. Reharmonization is not only a technique for altering harmonic content but also a valuable tool for developing creativity in composition and improvisation. It provides performers, particularly in improvisation, with substantial freedom (Özkeleş, 2024: 601, 613).

Asımoğlu (2012) asserts that improvisation progresses along a specific theme or topic and is shaped according to established techniques and methods. This creative process allows individuals to express original ideas, while group improvisation fosters collective creativity and strengthens musical interaction.

Improvisation, as an immediate act of creation, involves the performer producing a completely unique melody in the moment. In jazz, this occurs by generating an unplanned melodic line while adhering to the harmonic and rhythmic framework of the piece. This process exemplifies the spirit of freedom and creativity inherent in jazz. Techniques employed in jazz improvisation to enrich and develop harmonic structure—such as varying chord types, manipulating melodic motifs, and introducing rhythmic variations—enhance musical depth and expressive power. Altering basic chords with extended or altered chords, or incorporating chromatic transitions, expands the expressive possibilities of the improvisation and enriches the dynamic structure of the piece. Understanding and applying these techniques enhances performers' creativity and provides listeners with a unique musical experience (Babacan, 2014; Badoğlu & Özkeleş, 2023: 171).

In jazz, improvisation is central to musical expression and is process-oriented rather than solely composition-based. Berliner (1994: 192) describes improvisation as “the creative heart of jazz,” highlighting its structural essence. Jazz improvisation relies as much on listening and responding as on individual expression. Monson (1996: 73) emphasizes the importance of collective creativity, stating that “jazz performance is an instantaneous dialogue among musicians.”

Improvisation in jazz also serves as a musical expression of social experiences and identity. Sawyer (2003: 45) notes that “improvisation is a living form of cultural memory,” indicating that jazz is not only a musical practice but also a cultural one. In jazz improvisation, which is based on creatively reinterpreting standard forms and chord progressions, Pressing (1988: 136) explains the cognitive flexibility involved: “musicians constantly navigate between harmony and structure during improvisation.”

The emergence of jazz repositioned improvisation at the center of musical practice, redefining it as a process rooted in individual expression, ensemble interaction, and cultural identity. Historically, improvisation has evolved from a formal embellishment practice to a dynamic, interactive, and creative process, becoming a foundational concept in modern musical thought.

Experienced improvisers perform with comfort and freedom, having internalized time and musical language. In contrast, novice improvisers may struggle to align their mental conception of music with their performance. Therefore, when evaluating a beginner’s improvisation, it should be acknowledged that the executed music may not fully correspond to the performer’s intended conception (Kratz, 1991: 38). In parallel, Badoğlu and Özkeleş (2022: 309) emphasize that prior to improvisation, the melodic structure of the base piece should be analyzed theoretically, highlighting the importance of both technical proficiency and cognitive preparation.

From the 1950s onward, the flute increasingly became a solo instrument in jazz, particularly during the modern jazz era, acquiring a distinctive expressive voice (Rodriguez, 2014). Hubert Laws, trained in both classical and jazz music, has gained attention for interpretations that highlight the flute in the jazz repertoire. His work demonstrates that the flute can function not only as a coloristic element but also as a powerful solo instrument with melodic and harmonic capabilities. “His approach to the flute, with its beautiful tone and extraordinary technique, influenced the way jazz is performed on this instrument and inspired a generation of artists and listeners” (Oliver Nelson, Jr., 2016).

Clare Fischer’s composition *Pensativa* is an important example in the Latin jazz repertoire, offering a form conducive to improvisation through its melodic and harmonic structure. While the harmonic framework is maintained across various interpretations, soloists’ improvisations contribute distinct

character to the piece. Hubert Laws' interpretation of *Pensativa* is noteworthy in this context for its flute performance and improvisational approach.

This study examines the harmonic aspects of the improvisation in Laws' *Pensativa* performance, identifying the scales, chord relationships, and tension elements employed. The research is therefore guided by the question: What is the harmonic approach used by Hubert Laws in the improvisation of his *Pensativa* interpretation?

Purpose and Significance

The purpose of this study is to examine the improvisational section in Hubert Laws' interpretation of *Pensativa* from a harmonic perspective and to identify the chord-scale relationships he employs.

This research is significant in contributing to the limited body of academic work on Hubert Laws. Moreover, it is valuable in highlighting the role of the flute in jazz improvisation and providing a reference for improvisation analyses in jazz education.

Limitations

The study is limited to a specific section of Hubert Laws' *Pensativa* interpretation, encompassing a 32-measure segment from 1:45 to 2:35. The analysis was conducted using the original score and a transcription of Laws' performance.

METHOD

Research Design

This study is descriptive in nature and follows a general survey model aimed at identifying the musical language and harmonic structures used in the improvisational section of Clare Fischer's *Pensativa* as performed by Hubert Laws.

Study Group

The study group consists of the 32-measure improvisational segment performed by Hubert Laws in *Pensativa*, spanning the time interval between 1:45 and 2:25.

Data Collection

Document analysis, a qualitative research technique, was employed to collect data. Document analysis involves examining written materials that provide information about the phenomenon under investigation (Yıldırım & Şimşek, 2013: 217, cited in Tunahan). In this study, document analysis was used to establish the literature on improvisation and to obtain data regarding Hubert Laws' improvisation in Clare Fischer's *Pensativa*.

Data Analysis

Visual analysis was utilized to analyze the data. Visual analysis can be defined as the interpretation and explanation of visual data, symbols, signs, and notations. It can also be considered a subcategory of document analysis (Sönmez & Alacapınar, 2011: 83–84, cited in Barutçu & Atılğan, 2019: 502–503, vol. 9, cited in Badoğlu).

In musical analyses of jazz compositions, visual analysis includes elements such as chord tones (e.g., m6, m7, m7b5, m7/9, m11, maj6, maj7, maj9, 7, 7#5, 7/9, 7/#9, 7/9/b13, etc.), diatonic, chromatic, and double-chromatic approaches to these chords, as well as natural and altered tensions and leading tones. Furthermore, scales, chord progressions, tritone substitutions, melodic movements consisting of whole and half steps, and changes in chord types and functions are considered in the analysis of musical works (Tunahan & Özkeleş, 2025: 7).

Within this framework, the study conducted a melodic analysis of the improvisational section in Laws' *Pensativa* performance, focusing on its harmonic elements. In the harmonic analysis, chord sequences, chord tones, tension notes, and modal scales (e.g., Mixolydian, Dorian, Lydian) were identified. Additionally, the artist's use of chromatic transitions, altered tones, and melodic motifs was examined. This approach allowed for the

identification of both Laws’ harmonic approach in improvisation and the melodic expressive possibilities of the flute.

RESULTS



Example 1: Measures 1–5 of the Improvisational Section of Pensativa

In the first measure, within the GΔ7 chord, the notes B, G, and F# function as chord tones, while A serves as the natural tension, the 9th. In the second measure, within the Ab7#11 chord, the notes E and A are chord tones, and F# functions as a chromatic approach tone. In the third measure, within the GΔ7 chord, the notes D and F# are chord tones, and E functions as a diatonic approach tone. In the fourth measure, within the Ab7#11 chord, the notes Bb, D, and B are chord tones, while B functions as a chromatic approach tone. In the fifth measure, within the GΔ7 chord, the note A serves as the natural tension, the 9th, while D and B are chord tones, and E functions as the natural tension, the 11th.



Example 2: Measures 6–10 of the Improvisational Section of Pensativa

In the sixth measure, within the E7#9 chord, the notes D, B, G, E, and F# function as chord tones, with E appearing again at the end of the measure. In the seventh measure, within the EbΔ7 chord, there is a chromatic approach to the note Eb. The A9 chord in the eighth measure is based on a whole-tone scale. In the ninth measure, within the AbΔ9 chord, the notes G, Bb, C, and Eb serve as chord tones, while F functions as a diatonic note.



Example 3: Measures 10–12 of the Improvisational Section of Pensativa

In the tenth measure, within the Gm7 chord, Eb functions as a diatonic approach tone, F \sharp and A \flat as chord tones, and C as the chord's natural 9th tension. In the same measure, within the C7 chord, A functions as a diatonic note, G as a chord tone, and F \sharp as a chord tone. The first note of the eleventh measure, F \sharp , is preceded by a chromatic approach tone. In the eleventh measure, within the Fm7 chord, F and E function as chord tones, B \flat as the chord's natural 11th tension, and G as the chord's natural 9th tension. In the same measure, within the B \flat 7 chord, C functions as a diatonic note, and D and F function as chord tones.



Example 4: Measures 13–14 of the Improvisational Section of Pensativa

In the thirteenth measure, the D7 chord is approached using the Mixolydian scale. In the fourteenth measure, within the A \flat 7 chord, the notes G \flat , A \flat , C, and E function as chord tones, B \flat serves as the natural 9th tension, D \sharp as the natural #11 tension, and C is used as a chromatic approach note.



Example 5: Measures 15–17 of the Improvisational Section of Pensativa

In the fifteenth measure, within the G7 chord, the notes D, B, and G function as chord tones, C and A as diatonic notes, and A \flat as a chromatic note. In the sixteenth measure, the B \flat Dorian scale is employed. In the seventeenth

measure, within the GΔ7 chord, the notes B, F♯, and G function as chord tones, while A serves as a diatonic note.



Example 6: Measures 18–20 of the Improvisational Section of Pensativa

In the eighteenth measure, within the Ab7 chord, the note Bb functions as a diatonic note, while Ab, Gb, and Eb serve as chord tones. In the nineteenth measure, within the GΔ7 chord, A natural functions as the chord's diatonic tone, G and D as chord tones, E as the chord's natural 13th, Bb as a diatonic approach, Ab as the chord's altered 9th, Gb as a diatonic note, Eb as the chord's altered 13th, and Bb as a chromatic approach to the B chord tone. In the twentieth measure, the Ab7 chord is approached using the Dorian scale.



Example 7: Measures 21–24 of the Improvisational Section of Pensativa

In the twenty-first measure, within the GΔ7 chord, A functions as the chord's natural 9th, while D, B, and G serve as chord tones. In the twenty-second measure, within the E7 chord, E and D function as chord tones, F natural as the altered 11th, G natural as the altered b5, Bb as the altered b5, and the eighth-note D at the end of the measure serves as a leading tone. In the twenty-third measure, within the EbΔ7 chord, D, Bb, and G function as chord tones, while C serves as a natural tension. In the twenty-fourth measure, within the A9 chord, Bb is used approaching C, C approaches Db, Db approaches Eb chromatically, F♯ functions as the chord's natural 13th, Ab approaches G, G serves as a chord tone, F♯ approaches Eb, D natural serves as a chord tone, Db approaches Db, and C is used as a chromatic approach note.



Example 8: Measures 25–27 of the Improvisational Section of Pensativa

In the twenty-fifth measure, within the $A\flat\Delta 7$ chord, $B\flat$ functions as the chord's natural 9th, while $A\flat$, G , and $E\flat$ serve as chord tones, $F\sharp$ as a diatonic note, and D , $D\flat$, and C as chromatic notes. In the twenty-sixth measure, within the $Gm7$ chord, G , $B\flat$, and F function as chord tones, $A\flat$ as a natural tension, and C as a leading tone; within the same measure, over the $C7$ chord, C functions as the chord's root. In the twenty-seventh measure, within the $Fm7$ chord, A and $E\flat$ serve as chord tones, $B\flat$ as an altered 11th; within the $B\flat 7$ chord, $A\flat$ and F serve as chord tones, and C functions as the chord's natural 9th.



Example 9: Measures 28–31 of the Improvisational Section of Pensativa

In the twenty-eighth measure, within the $E\flat\Delta 7$ chord, D and G function as chord tones, while C serves as the chord's natural 13th. In the twenty-ninth measure, within the $D7$ chord, B functions as the chord's natural 13th, D , A , and C serve as chord tones, and $A\flat$ acts as a leading tone. In the thirtieth measure, within the $A\flat 7$ chord, B functions as the chord's natural 9th, F as the chord's natural 13th, D as a diatonic approach, A as a chromatic approach to $A\flat$, and $G\flat$ as a diatonic approach. In the thirty-first measure, within the $G\Delta 7$ chord, E functions as the chord's natural 13th, A as the natural 9th, and D as a chord tone.



Example 10: Measure 32 of the Improvisational Section of *Pensativa*

In measure thirty-two, within the Dm7 chord, D, F, and A function as chord tones, while E serves as the chord's natural 9th. Within the same measure, over the G7 chord, G, F, and D function as chord tones, and E serves as the natural 13th of the chord.

CONCLUSION AND RECOMMENTATIONS

Conclusion

The improvisational section of Hubert Laws' performance of *Pensativa* demonstrates that the flute can function as an effective solo instrument within jazz. Considering that the artist is known for his proficiency in both classical and jazz performance, it is evident that he skillfully integrates these possibilities into his improvisations. Analyses indicate that in Laws' improvisations, alongside chord tones, he employs both natural and altered tensions (such as 9ths, #11ths, 13ths, #9ths, etc.), enriching the melodic lines through chromatic and diatonic approaches. Furthermore, he incorporates modal scales such as Mixolydian and Dorian, as well as whole-tone scale structures, contributing to harmonic diversity.

As a result, Laws' improvisational approach not only aligns with the underlying chords but also produces melodically coherent independent expressions. For example, the use of leading tones and chromatic connections during chord changes provides fluidity to his improvisations. These examples also suggest that the flute, in Laws' hands, can be positioned not merely as a coloristic instrument but as a harmonic and melodic tool.

Recommendations

Before beginning improvisation studies on the jazz flute, it is recommended that musicians learn harmonic elements such as chord-scale relationships, tension tones, modal scales, and chromatic-diatonic transitions.

This will enrich the musician's expressive language. To develop improvisational skills on the flute, scale and arpeggio exercises should be practiced in various tonalities and tempos, with particular focus on finger dexterity and breath control during fast passages. Recordings of master flutists like Hubert Laws should be listened to, and their improvisational approaches should be transcribed and analyzed. This will contribute to musical memory and improvisational ability. In music education institutions, courses on jazz flute and improvisation techniques can incorporate the study of Hubert Laws' works, allowing students to appreciate the flute's potential in jazz.

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The Impact of Statistical Quality Control on Food Capsule Manufacturing Efficiency: A Conceptual and Empirical Overview

Ayşenur ERDİL ¹

¹İstanbul Medeniyet University, Türkiye, runesyalidre@gmail.com, ORCID ID: 0000-0002-6413-7482

ABSTRACT

Using statistical analytic techniques, this research looks at the production performance, sales data and quality control procedures of two distinct capsule manufacturing facilities for food sector (Factory-1 and Factory-2) in the Marmara Region. The study's scope included measuring and assessing production process variability, error rates and dependability levels in relation to probability distributions, probability analysis and statistical quality control (SQC). A data-driven management strategy, statistical quality control seeks to differentiate between systematic faults and random changes in the manufacturing process. In addition to using statistical techniques such as variance, standard deviation, histogram and normality analysis etc., the research also computed the probabilities of faulty products using probability theory. The results showed that while Factory-2, which makes fruit capsules, had more sales, the manufacturing process's standard deviation also rose, suggesting that production dependability fluctuated. On the other hand, Factory-1, which manufactures food capsules, had lower variance values, suggesting more reliable manufacturing performance. In conclusion, it was discovered that statistical quality control applications are a useful instrument for lowering the rates of faulty products and enhancing production reliability in capsule manufacturing facilities located in the Marmara Region.

Keywords – Data-Driven Management; Food capsule; Manufacturing; Probability Analysis; Production Reliability; Statistical Quality Control.

INTRODUCTION

The move from traditional food consumption models to cutting edge nutrition systems like nutritional capsules is the apex of modern food research. This transition has occurred in response to a growing global population, environmental concerns, and a demand for tailored nutrition. Micro- and nanoencapsulation technologies have the potential to change the food sector by safeguarding bioactive components, enhancing bioavailability, and prolonging shelf life (Huang, 2023; Akonjuen & Aryee, 2023; Teixe-Roig et al., 2023; Siegrist & Hartmann, 2020; McClements, 2015). Nevertheless, widespread implementation of these new feeding systems raises complicated quality control, safety, and customer acceptability concerns. When pharmaceutical industry adapted encapsulation technologies are applied to food matrices, issues such as stability of nutritious components, dose uniformity and controlled release in the gastrointestinal tract are faced (Gibbs et al., 1999).

In this case, the consumer complaints received by XYZ Company, the principal sponsor of four partner organizations, regarding the food capsules

manufactured at Factory-1 and the fruit supplements made at Factory-2, highlight possible weaknesses in the upcoming food supply chain.

The purpose of this study is to thoroughly investigate the potential causes of complaints addressed at XYZ Food Capsule Manufacturing Company, specifically in terms of accessibility, production uniformity, and sensory adoption, in light of the current academic research in the field of food science and nutrition technology. According to the current evidence, new generation food supplements cannot match customer expectations unless they adhere to stringent Good Manufacturing Practices (GMP) and undergo constant scientific validation. Customers usually complain about shortcomings in crucial characteristics such as product performance, safety, and stability. The present literature on capsule technology offers a theoretical foundation for the problems encountered by XYZ Food Capsule Manufacturing Company.

Bioavailability and Preservation of Nutritional Value

The most important problem in capsule formulations is to enhance the absorption of the nutrients in the ingredients while also ensuring their stability during storage.

-Food Capsules (Factory-1): If there are accusations that the capsule does not deliver adequate nutritional content, this might be due to nutrient deterioration caused by heat processing, oxidation, or poor formulation choices during micro/nano encapsulation. Furthermore, because the capsule cannot release the ingredients in a specific way in the gastrointestinal system, nutritional absorption is greatly reduced. Studies that investigate the integrity and release dynamics of nutritional components within polymeric matrices emphasize the crucial function of the carrier system (Huang, 2023; Akonjuen & Aryee, 2023).

-Fruit Capsules (Factory-2): Fruit capsules often include a high concentration of sensitive bioactive substances (such as vitamin C and polyphenols). The quick loss of action of these chemicals, particularly due to oxidation and response to light (Gibbs et al., 1999), might be the primary cause of complaints. An ineffective fruit capsule wouldn't provide customers with the anticipated health advantages.

Quality Control and Manufacturing Inconsistencies

Manufacturing at two different sites might make it difficult to coordinate Quality Assurance and Quality Control (QA/QC) procedures. Even tiny variations in capsule size, fill volume, or content combination can have a severe influence on the quality of the finished product and consumer perception (USP 905 - Uniformity of Dosage Units, 2025; Guidance for Industry Q4B Evaluation and Recommendation of Pharmacopoeial Texts for Use in the ICH Regions Annex 6 Uniformity of Dosage Units General Chapter, 2014; Uniformity of Dosage Units (USP <905> Uniformity of

Dosage Units, 2011). The pill might not include the anticipated quantity of nutrients per unit, according to customer concerns. This suggests that neither Factory-1 nor Factory-2 are properly implementing Good Manufacturing Practices (GMP) requirements, which might imply that pharmaceutical standards (such as USP <905> Uniformity of Dosage Units) are not being followed (USP 905 - Uniformity of Dosage Units, 2025; Martins & Lourenço, 2024; Guidance for Industry Q4B Evaluation and Recommendation of Pharmacopoeial Texts for Use in the ICH Regions Annex 6 Uniformity of Dosage Units General Chapter, 2014 ; Uniformity Of Dosage Units (USP <905> Uniformity of Dosage Units), 2011).

The consistency of dosage unit (UDU) test is a popular technique for assessing the quality, safety, and effectiveness of forms of administration in unit doses. Increased variability in the quantity of medicine (API, or active pharmaceutical ingredient) in each dosage unit may lead to low-quality, hazardous, and inefficient drugs (Martins & Lourenço, 2024).

Sensory Acceptance and New Food Forms

The sensory pleasure that food offers taste, fragrance and chewing experience will vanish when capsules proliferate in future food systems. The uncomfortable quality of the eating experience or the terrible taste of the capsule itself may be the subject of complaints. Even if the capsule is technologically effective, it could be rejected since consumers want food to offer not just nourishment but also an emotional and cultural experience. Social science studies on consumers' adoption of new food technology corroborate this view (Teixé-Roig et al., 2023; Siegrist & Hartmann, 2020; McClements, 2015).

LITERATURE REVIEW

Encapsulation is a relatively new practice in food science that offers a variety of approaches to enhance food quality and functional integrity. This technique increases the longevity of sensitive components including odors, tastes, colours, and microorganisms while effectively concealing undesired sensory aspects. By employing proper wall materials, encapsulation allows for controlled release and considerably increases the bioavailability of bioactive compounds, providing considerable health benefits to consumers. With its unique physicochemical properties, wall material selection is critical for improving the antioxidant and functional properties of the primary components and avoiding food degradation reactions. Thus, encapsulation processes increase product shelf life while also improving food's physicochemical, functional, and sensory properties. To effectively use encapsulation for the sustainable and integrative use of agricultural products, more research must focus on the process's scalability upward and successful transfer from laboratory to manufacturing facilities.

Encapsulation is a fundamental technique that creates protected micro- or nanostructures by trapping an active core substance, such as flavorings or colorants, behind a second, non-reactive material for the wall (Jayaprakash et al., 2023; Finney et al., 2002). This procedure is essential for improving ingredient stability in the food, chemical and pharmaceutical sectors. It is specifically employed in the food industry to shield delicate components—such as oils, vitamins, antioxidants, and enzymes—from outside elements that might cause them to degrade. The technology is widely used in a variety of industries, including pharmaceuticals, chemicals, and cosmetics, but it is especially important in the food business. Encapsulation is used in the food industry to preserve and provide a variety of functional substances, such as oils, fats, minerals, antioxidants, vitamins, and enzymes (Madene et al., 2006). The protecting wall substance should be inert and maintain the integrity of the core chemical (Gharsallaoui et al., 2007).

A proven engineering method that is crucial to the development of novel products in the production and processing of functional foods is encapsulation. Essentially, the procedure entails enclosing the functionally active element also known as the payload, fill, or core Material in a protective matrix. This exterior layer is made up of an inert material and is referred to as the coating substance, wall, shell, or carrier. Within complex food systems, the resultant structure protects the core and permits its intended functional performance (Barros et al., 2018; Jyothi et al., 2010; Gibbs et al., 1999). By coating or embedding the active substances into a matrix, encapsulation produces functional capsules or powders that greatly shield core components from deterioration caused by heat, light, and oxygen (Yakdhane et al., 2021; Garavand et al., 2019). Stability during heat processing, storage, and digestion is significantly improved by this method. Spray drying, extrusion, coacervation, spray-chilling/cooling, freeze-drying, and ionic gelation, among others are important methods for adding biolipids to micro/nano delivery platforms (Fadini et al., 2021; Kouamé et al., 2021; Silva et al., 2019). In the food sector, encapsulation technology is essential for concealing unwanted sensory characteristics, maintaining unstable substances, adding useful ingredients and facilitating site-specific, controlled release. Even if information about microencapsulation is well advanced in industries like pharmaceuticals, further research is necessary to optimize its advantages in food production. The main encapsulating methods, coating material selection and performance assessment are all covered in detail in this review, which also makes suggestions for further study to help manufacturers choose target-centered encapsulation and appropriate industrial processes (Timilsena et al., 2020).

Nanoencapsulation is a significant innovation in food nanotechnology that uses films, membranes, or nano dispersions to encapsulate chemicals at the nanoscale and provide beneficial properties. Nanoparticles, emulsions, nanoliposomes and electrospinning processes are effective ways for

encapsulating biolipids at this size (Liao et al., 2021; Venugopalan et al., 2021). It has been demonstrated that transferring oral administration techniques from the pharmaceutical industry to nutraceutical formulations improves the effectiveness of bioactive chemical delivery. A recognized method for enhancing the oxidative stability and functional characteristics of oils high in omega-3 fatty acids is encapsulation. With respect to the intended use, different encapsulation techniques have been evolved to maximize the stability and regulated release of omega-3 fatty acids in food systems. Additionally, by making it easier for the intestinal epithelium to absorb omega-3 fatty acids, encapsulation increases the bioavailability of them (Homroy et al., 2024).

According to a recent investigation by Yavari et al. (2025), bioactive substances like polyphenols and omega-3 polyunsaturated fatty acids (PUFAs) have demonstrated encouraging effects in clinical studies, such as lowering the buildup of amyloid- β , enhancing cognitive abilities, and altering signaling pathways linked to Alzheimer's disease. The study also looked at the complex connections between the pathophysiology of Alzheimer's disease, overweight and obesity, diabetes and inflammatory processes, highlighting the therapeutic and preventative potential of dietary components in reducing inflammation, oxidative damage, and dementia. Rahim et al.'s thorough analysis from 2025 examined the important facets of omega fatty acids, highlighting their key sources (such as fish oil and chia seeds), health advantages, and need. The authors described how these polyunsaturated fatty acids (PUFAs) have been shown to be useful in preventing the pathophysiology of a variety of illnesses, such as cardiovascular and neurological disorders. Importantly, the review compared different preservation methods, including traditional and multilayer encapsulation, intended to preserve stability and improve the absorption and utilization of omega fatty acids in nutritious food formulations, while addressing the intrinsic oxidation tendency of PUFAs (Rahim et al., 2025).

The advanced co-formulation of several active chemicals is made possible by modern capsule technology, producing visually striking, multicolored encapsulates that greatly enhance the item's aesthetic quality and commercial distinction. In order to strengthen customer interest and acceptability and to enhance brand identification, this visual attractiveness is carefully employed. For the nutraceutical industry, such creative skills represent a significant technical advancement that will result in the creation of highly efficient, adaptable health and wellness products. As a result, manufacturers and specialized contract development companies driving these developments are in a position to reshape future norms for product accessibility and effectiveness (Capsule Evolution: Fine Foods Shaping the Future of Health and Wellnes, 2024).

The main issue that Weng et al. (2024) review focuses on is the low shelf-life and low stability of enzymes under industrial circumstances, which limit

their employment in the food sector. The authors summarize previous research and their successes in improving enzyme activity before presenting the use of spray drying as a flexible and financially feasible method for enzyme encapsulation. The study examines the most recent advancements, such as innovative spray drying chamber designs, nozzle atomizers, and cutting-edge methods meant to improve process effectiveness and product quality. Importantly, it provides an example of the scale-up approaches required to close the gap between industry-scale production and present laboratory-scale investigation (Weng et al., 2024).

Considering the increased consumer desire for organic and sustainable foods, this study focuses on novel, ecologically friendly sources of bioactive compounds and their sustainable processes for extraction. The authors focus on recent advances in emulsion-based delivery methods that use natural (plant-derived) emulsifiers to preserve these chemicals. The study evaluates the features and functioning of these natural emulsion systems, incorporating supporting data from *in vitro* and *in vivo* experiments, to give essential information on long-term formulation advancement (Teixé-Roig et al., 2023). Although dietary bioactive lipids have several health advantages, their nutritional value and functioning are limited by their susceptibility to deterioration from elements like light and oxygen. Furthermore, it is more difficult to incorporate them into watery food items due to their hydrophobic nature. The stability, dissolution, bioavailability, and general consumer acceptance of these lipids are greatly improved by the use of micro/nano-encapsulation delivery methods in order to get around these restrictions (Akonjuen & Aryee, 2023).

Given their vulnerability to deterioration, food systems need to maintain integrated bioactive substances like polyphenols, flavonoids, flavonoids and carotenoid in order to increase shelf life and enhance physicochemical quality. In order to preserve these delicate natural components from outside influences like chemical and physical elements that would otherwise restrict their incorporation into the matrix of food, encapsulation is a crucial protective method. Importantly, this procedure improves the bioactives' stability and controlled release, which raises their water solubility for a variety of food applications and increases their bio accessibility throughout digestion (Jayaprakash et al., 2023; Hcini et al., 2021).

Huang et al. (2023) conducted a comprehensive evaluation of cutting-edge microencapsulation technologies for bioactive chemicals, with an emphasis on improving their durability and bioavailability in food-based applications. The authors addressed the variations in the structure and release kinetics of reservoir-system and matrix-system microparticles while comparing their physical and chemical features produced by six major techniques (spray drying, freeze-drying, extrusion, etc.) to help researchers choose the best methods, wall materials, and working circumstances for the properties they want (Huang et al., 2023). Zabot et al. (2022) present an updated overview

of the discoveries and evolutions in bioactive chemical encapsulating for both food and agricultural purposes. According to the study, a variety of encapsulating agents are used, such as polysaccharides like sodium alginate, chitosan, whey protein, and modified starch, as well as standard chemical and physical processes including extrusion, freeze-drying, and spray-drying. Enhancing stability, extending controlled release time, guarding against lipid oxidation, and preserving organoleptic qualities in the face of adverse environmental circumstances continue to be the key goals of scientific research. The assessment notes that the majority of encapsulation techniques are progressing beyond Technology Readiness Level 6 (TRL 6) and finds that the current research situation demonstrates favorable advancements in techno-economic feasibility along with manufacturing scale-up. This development is crucial for creating agricultural goods such as ecological pesticides and bio fungicides, as well as for adding peptides, vitamins, and vital oils to food (Zabot et al., 2022).

Liu et al.'s (2022) research discusses current advances in co-encapsulation structures, which are delivery platforms intended to encapsulate two or more nutrients at the same time in order to improve the nutritional content and health benefits of food. The authors concentrate on systems such as emulsions, nanoparticles, microcapsules, liposomes, and hydrogels, explaining the co-encapsulation mechanisms that allow for the simultaneous distribution of bioactive substances. Furthermore, the review demonstrates how co-encapsulation not only conceals unpleasant tastes (such as astringency) while improving stabilization and bioavailability, but also increases the combined compounds' synergistic biological activity. Additionally, the study examines the mechanics of release, digesting, and absorption in the human digestive system, with concrete examples for use in the food business (Liu et al., 2022). The quality and shelf-life of goods like meat and seafood are severely harmed by lipid oxidation, which is why there is interest in creating innovative encapsulation techniques and antioxidant packing. In a similar vein, nanostructured materials like cellulose nanocrystals and films based on alginate are being used to preserve fruits and vegetables. In order to improve product safety and functioning, the food industry is concentrating on utilizing a variety of encapsulation techniques and wall materials. Beyond laboratory preparation, however, there are significant obstacles to the actual use of encapsulation technology, primarily related to production cost and scalability. Future studies must concentrate on moving manufacturing techniques from pilot-scale to large-scale production in order to overcome these constraints. To improve the functionality and suitability of microparticles in various food matrices, it is also essential to investigate alternate, reasonably priced wall materials made from a variety of sources. Last but not least, a sustainable viewpoint necessitates a thorough assessment of how encapsulant agents and process conditions affect sensory, physical, chemical, and techno-functional qualities, as well as the impact on

human health and the natural environment (Cassani et al., 2022; Cheng et al., 2022; Figueiredo et al., 2022; Šeregelj et al., 2021).

The research study by Guo et al. (2021) looks at the notable developments in creating encapsulation systems for novel meals utilizing starch, a biopolymer that is widely accessible, reasonably priced, and simply adjustable. The creation of different porous starches and starch particles by a variety of methods (such as hydrolysis by enzymes, emulsification, and hydrodynamic operations) is the main emphasis. Fatty acids, phenolics, vitamins, and probiotics are just a few of the many health-promoting dietary elements that may be loaded, preserved, and delivered using these starch-based encapsulants. In the conclusion, the reviewed study shows how these systems have a lot of potential for creating foods with customized flavors, improved nutrition, and longer shelf lives (Guo et al., 2021).

Encapsulation is a groundbreaking technique that improves product quality and functionality for the food and nutraceutical industries, according to a study by GSubramani & Ganapathyswamy (2020). Nevertheless, more advancements regarding technology and regulations are required to address the costs and safety challenges of applications in industry. A significant critical review in the realm of food science and bioactive substances, Khalid & Barrow's (2018) study focuses on how encapsulation technologies can maintain the effectiveness of astaxanthin, a powerful antioxidant, in food, nutraceutical, and pharmaceutical applications. Examining several encapsulation techniques used to improve the stability and, in turn, the bioavailability of the very sensitive chemical astaxanthin is the main goal of this study. According to Khalid and Barrow (2018), these techniques usually include popular industrial practices like Spray Drying (which is preferred for its cost-effectiveness and scalability), Freeze Drying, which offers high-quality but expensive conservation, and advanced structural strategies like emulsification and electromagnetic dispensing for controlled micro-/nano-scale delivery systems.

Siegrist & Hartmann's (2020) narrative review attempts to explain consumer resistance to new agri-food innovations by methodically examining the ways in which important individual differences (such as aversion to food and disgust sensitivity) and heuristics (such as perceived naturalness) affect acceptance. In order to successfully adopt disruptive technologies required for a resilient food system, the authors utilize case studies, such as those involving nanotechnology and cultured meat, to show how important it is to consider consumer perception concerns early in the process of development (Siegrist & Hartmann, 2020).

Oils are utilized extensively in nourishment, cosmetics, and agricultural production, but they quickly lose their useful qualities due to oxidation. The main tactic is encapsulation into inert materials, or capsules, to reduce deterioration and conceal undesired characteristics. Alginates are widely used for oil encapsulation among the many membrane polymers because of

their low toxicity, strong gelling ability, and biocompatibility. Whenever alginate macromolecules crosslink under the influence of calcium ions, a calcium hydrogel is created, and methods may be classified by external, internal, or inverse gelation processes to create alginate capsules (Martins et al., 2017).

The review by Kiokias and Varzakas (2017) tackles a significant gap in research addressing the resistance to oxidation of multiple emulsions, which is required for their effective application in food systems, especially when highly unsaturated oils are used. The study focuses on several features of multiple emulsions, emphasizing their novel usage as a fat replacement approach in meat products. Moreover, the paper critically examines the utilization of natural antioxidants in both conventional and multiple food-based emulsions, as well as the function of multiple formulations in bioactive chemical encapsulation and their use in confectionary goods (Kiokias & Varzakas, 2017).

Zhu's (2017) brief review discusses the increased interest in employing starch, an abundant, non-allergenic, and low-cost biopolymer, as a principal wall material for encapsulating a variety of functional food components such as lipids, vitamins, and microorganisms. Starch derived from diverse botanical sources is frequently used in native or modified forms (by chemical, physical, or enzymatic techniques) to provide the required characteristics for targeted encapsulation. The authors review different crafting processes, including electrospinning, spray drying, and nano-emulsification, stressing how these starch-based systems improve the regulated release and absorption of bioactive substances in food and nutrition activities (Zhu, 2017).

Tolve et al. (2016) want to fill a vacuum in the scientific community by concentrating on the actual inclusion of micro-Encapsulated bioactive compounds into food matrices for the creation of functional foods. Recognizing the shown value of nano/micro-encapsulation in improving the physical stability, bioavailability, and effectiveness of health-promoting substances, the research looks at the complete spectrum of this technique. Tolve et al. (2016) conduct a thorough evaluation of the various bioactive compounds, encapsulating methods, and coating materials that are currently used to successfully incorporate these safeguarded compounds into functional food combinations.

Kuang et al. (2010) investigate the application of microencapsulation technology originally created for the pharmaceutical business to regulate medication release, improve bioavailability, and conceal flavor for use in the food sector. The authors point out that, while the food sector employs it for controlled flavour releasing and adding functional ingredients (such as probiotics and pharmacological agents), the selection requirements for appropriate technology are stricter because of reduced profit margins. The research investigation concentrates on the parameters that influence

microcapsule release characteristics (the two types of reservoir and matrix systems), which are heavily influenced by the encapsulation technology used and the physicochemical features of the core and shell materials. Also, the paper explores the possibility of applying two established pharmaceutical processes, fluidized bed coating and extrusion-spherization, to the microencapsulation of functional bioactive substances in the food business (Kuang et al., 2010).

The aquatic environment is a huge, untapped source of unique bioactive chemicals that outperform terrestrial counterparts in several capabilities, giving enormous opportunities for food production, storage, and fortifying. Enzymes obtained from marine creatures, for example, outperform typical enzymes due to their durability under high temperature and pH settings, whereas fish-derived proteins (collagens and gelatines) are useful in heat-sensitive processes such as gelling and resolving. Additionally, algal complex carbohydrates (alginates, carrageenan, and agar) are widely used as essential thickeners and stabilizers, while other compounds such as omega-3 fatty acids and pigments are important nutraceuticals due to their numerous health benefits, including a lower risk of coronary heart disease. However, achieving every potential of this large reservoir requires the use of biotechnology technologies to successfully cultivate and isolate these unique chemicals (Rasmussen & Morrissey, 2007).

Usually, spherical particles less than 100 nm, micro emulsions are multipurpose dispersion systems (found in water-in-oil or oil-in-water configurations) with great potential in biomedicine, cosmetics, and pharmaceuticals. Surface tension and the interfacial substance's constitution have a significant impact on their stability, long-term characteristics, and content release processes (Sarker, 2005). As a result, it is anticipated that further advancements in this field, such as novel variants based on fluorinated compounds, would result in a significant expansion of their use as sophisticated delivery vehicles.

Encapsulation, which is a process increasingly used in the food business to improve stability and viability by shielding components from unfavorable circumstances including moisture and heat, entails encapsulating food components, digestive enzymes, or cells into tiny capsules. Using a variety of wall materials, such as lipids, starches, and proteins, the approach is applied to a wide range of compounds, including flavors, sweeteners (like aspartame), and nutrients. Key uses include concealing unwanted odors/tastes and producing regulated, site-specific release of chemicals, generally by solvent activation, however high manufacturing costs and the restricted availability of safe for consumption components remain ongoing research problems (Gibbs et al., 1999). Microencapsulation is a recently developed food technique that uses starches, amino acids, and lipids to preserve, stabilize, and slow-release components. Spray-drying, extrusion, and coacervation are among the common preparation techniques studied,

with an emphasis on measuring protection effectiveness and controlling ingredient release processes (Shahidi & Han, 1993).

El Soda et al. (1989) looked at the possibility of employing small particles and microcapsules covered with milk fat to encapsulate enzymes and substrates in order to speed up the maturation of cheese. The researchers showed that both systems, and multilamellar liposomes in particular, may raise the concentrations of desirable aroma molecules, such as methyl and diacetyl ketones. Additionally, it was established how sensitive liposome stability was to external variables like pH and temperature, and in order to accomplish regulated dissolution, heat-sensitive liposomes were studied (El Soda et al., 1989).

Encapsulation technology sometimes referred to as encapsulation invention, is an interesting fusion of technological accomplishment and philosophic purpose. Fundamentally, the idea is simple yet profound: protect and accurately disperse an active substance. This idea underpins the entire program, guaranteeing that essential, frequently sensitive substances from vitamins and probiotics to flavors arrive undamaged, stable, and prepared for maximum effectiveness.

Future Prospects for Capsules: Present Situation and Prospects

This assessment covers the philosophical foundations of encapsulation/capsule technology, its current technological applications, material advancements with a focus on sustainability, and potential future trends that might impact the sector. Encapsulation technology encloses active chemicals (vitamins, probiotics, flavors, etc.) in a carrier shell to provide controlled release, stability, and ease of transportation (Korkmaz & Tunçtürk, 2024). Encapsulation methods are particularly important in the field of nutraceutical goods and functional meals. Customers have high expectations for product usability, biological absorption and reliability (Korkmaz & Tunçtürk, 2024). The use of automation, sensor-based detection, and data analytics powered through artificial intelligence (AI) are increasingly being used to improve production dependability and quality control procedures. This advancement, which falls under the area of capsule manufacturing advancements, ensures the continued observance of critical quality requirements such as substance homogeneity, weight uniformity, and capsule durability.

Current Research in Technology and Applications

Technology has made it possible to alter both the substance of the casing as well as the contents of the capsule:

Capsule solutions are commonly used in probiotic and nutraceutical encapsulation to improve stability, provide controlled release of active compounds and prevent damage to probiotic and nutraceutical compounds

during the manufacturing process (Trends in Food Science & Technology, 2021).

-Capsule Structures with Multiple Uses: The manufacturing and release mechanisms of Hierarchical Plant Protein Microcapsules, which may simultaneously transport water-soluble (hydrophilic) and fat-soluble (hydrophobic) active compounds, are currently being studied. This demonstrates the capsule's versatility in terms of carrier material and interior load (Dinh et al., 2024).

-Functional Capsule Shells: A study on capsule shell functional modifications covers the technology utilized to manufacture enteric rigid capsules and its applications, such as dissolving outside the stomach (Franc et al., 2022).

-Innovations in Production Technology: Automated and improvements in pharmaceuticals capsule production, such as vision inspection equipment, high-speed refilling devices, and AI-supported control systems, are transforming quality control methods (Tablets & Capsules Magazine, 2024).

Packaging, Material Improvements and Sustainability

Sustainability and environmental impact are increasingly driving capsule and package innovation.

(i) Biopolymer-Based Polymers: To enhance food security as well as sustainability in the packaging process, edible coatings and films are being developed using microbial or plant-derived polymers (Kumar et al., 2023).

(ii) Biodegradation and Active Packaging: Ecological impacts, biodegradability, and packaging-food interactions are important research areas. Researchers are exploring the use of anti-microbial foodstuffs and microcapsules for use in packing (Yemenicioğlu, 2024).

(iii) Sustainable Raw Materials: According to Amstad (2017), future trends indicate the use of sustainable and biodegradable substances such as amino acids from plants, polymers made from plants, and bacterial cellulose.

Prospective Improvements and Trends for the Future

Four important breakthroughs may influence the future of capsule technology:

- Smart Capsule Systems: Researchers are developing smart capsule systems that control active releasing according to environmental variables (such as pH, temperature, and enzymes) or time (Amstad, 2017).

- Materials Science Innovations: There may be an increase in the use of sustainable, degradable, and environmentally conscious new-generation carrier substances (plant proteins, biopolymers) (Dinh et al., 2024).

- Manufacturing Automation and Data Analytics: The introduction of Internet of Things sensors, processing of pictures (vision inspection), spectrum assessment, and AI-supported deviation detection might enable real-time and fully automated quality control processes.

- *Consumer Demands and Regulation Pressure:* Consumers need more utility, attractiveness, and ecologically friendly substances (plant-based capsules, non-toxic substances). The formulation, soluble composition, and packaging of capsules may be subject to stricter health and food safety regulations (Çakmakçı et al., 2024).

APPLICATION- CASE STUDY

Currently, manufacturing and use of food-based capsules for daily nourishment have essentially ended, resulting in significant structural instability in the sector. As a consequence, four subsidiary organisations were established under the parent company, XYZ Corporation, which operates in the Marmara Region of Turkey's food sector. This investigation focuses on four subsidiary business entities known as SC1, SC2, SC3, and SC4. These subsidiary entities operate under XYZ Company's organizational structure and do business in a variety of places within Turkey's Marmara Region. The subsequent statistical analysis and findings for these four subsidiaries should be interpreted in light of their geographically different operating environment. The company's production system is structured into two major units: Fruit capsules are the specialty of Factory-2, whereas food capsules are produced by Factory-1.

Customer concerns regarding product quality have increased recently. The Quality Control Department responded to these challenges by putting in place a comprehensive corrective program that was project-based. This initiative's initial phases comprised:

- Assess sales data from the previous fiscal year to identify trends and anomalies.
- Developing quantitative enhancement goals to reduce defective outputs by evaluating defect ratios through the manufacturing process.

This coordinated, data-driven strategy aims to increase ultimate product quality, customer satisfaction, and process reliability at both production facilities.

The purpose and scope of this study is to statistically analyse and compare the quality requirements and anticipated sales performance of two factories (Factory-1 and Factory-2) that can develop capsule-based food items. The investigation was sparked by an increase in consumer complaints about the capsule's quality. As a result, the project intended to reduce process variability across production lines, reduce the probability of faulty manufacturing, and identify the underlying reasons of quality deviations. The dataset includes monthly sales statistics until 2024. Over a 12-month period, the two facilities' food and fruit capsule manufacturing performance was evaluated. According to Montgomery (2019), Levine et al. (2016), and Devore (2011), the process structure is divided into three major analytical steps:

- Descriptive statistical analysis uses measurements like mean, variance, standard deviation, minimum, and maximum values to reveal underlying patterns and variation.
- Graphical Analysis: Box-whisker plots, histograms, bar charts, and normality plots may all be used to visualize sales distributions.
- Probability-Based Quality Assessment: Statistical Process Control (SPC) procedures use binomial and normal distribution assumptions to assess process stability and determine the likelihood of faulty items.

Table 1: presents the descriptive statistics for the sales performance of the two factories.

Factory	Product Type	Mean Sales (units/month)	Standard Deviation	Minimum	Maximum	Variance
Factory-1	Food Capsules	820	35.7	760	870	1275.49
Factory-2	Fruit Capsules	960	58.4	850	1070	3410.56

The findings suggest that Factory-2 has an average level of sales that is 17% higher than Factory-1. However, the higher standard deviation indicates that Factory-2's manufacturing process is more volatile and unreliable than Factory-1's. (See table 1).

Table 2: Distributional characteristics of sales data

Statistic	Factory-1	Factory-2
Skewness	0.21	0.74
Kurtosis	2.88	3.45

The research (see Table 2) shows that Factory-1's sales data closely follows a normal distribution, but Factory-2's data has positive skewness, suggesting periods of increased sales volatility.

The data show that Factory-1 produces more consistently than Factory-2, which has oscillations induced by demand spikes or process instability. The findings emphasize the need for improved systems for process control in Factory 2.

The computed important statistical measures for the SC1, SC2, SC3, and SC4 data sets are shown in table 3 below.

Table 3: Calculated key statistical measures for the SC1, SC2, SC3, and SC4
(Statistical Calculations Summary Table)

Statistical Measure	SC1	SC2	SC3	SC4
Arithmetic Mean (\bar{x})	520.898	557.191	441.990	460.293
Median (\tilde{x})	498.947	571.967	463.762	447.156
Range	455.769	400.587	200.275	429.556
Interquartile Range (IQR)	233.868	160.373	106.457	222.377
Standard Deviation (s)	146.087	116.790	76.711	120.627
Coefficient of Variation (CV)	28.04%	20.96%	17.36%	26.21%

The four groups' descriptive statistical statistics, which offer a numerical evaluation of their key attributes, are displayed in Table 3. The following research uses descriptive statistics to illustrate the distribution features of the four subsidiaries (SC1, SC2, SC3, and SC4) of XYZ Company. A comprehensive comparative investigation of central tendency and dispersion throughout samples is made possible by these metrics, which span from the Arithmetic Mean and Median to the Standard Deviation and Interquartile span.

The descriptive assessment of the four categories—SC2, SC2, SC4, and SC3—reveals distinct patterns of central tendency and variability.

SC2 has the highest mean value (≈ 557), indicating greater overall performance during the analyzed time. SC3 has the lowest mean (≈ 442), indicating more moderate results.

The juxtaposing of mean and median values reveals differences in distributional uniformity. SC1 and SC4 have right-skewed distributions, implying the influence of huge outliers, whereas SC2 and SC3 have left-skewed distributions, indicating the effect of smaller extreme values.

SC1 has the widest range (≈ 456) and largest standard deviation (≈ 146), resulting in the most variable. SC3 has the lowest standard deviation (≈ 77) and shortest range (≈ 200), indicating more consistent data.

When examining relative variability using the Coefficient of Variation (CV), SC1 is the most unstable group ($CV = 28.0\%$), while SC3 is the most stable and predictable ($CV \approx 17.4\%$).

Collectively, the data shows that while SC1 is quite variable, SC3 offers the most consistent and reliable performance. Despite having the highest mean, SC2 is in the middle of the two extremities in terms of stability.

Estimating the Probability of Defective Products: The majority of complaints from customers are related to defective capsules. Using random sampling, 20 out of 1,000 capsules were determined to be faulty.

$$p = \frac{x}{n} = \frac{20}{1000} = 0.02$$

Consequently, 2% is the defective rate.

Applying the binomial distribution:

$$P(X < 30) = \sum_{k=0}^{29} \binom{1000}{k} (0.02)^k (0.98)^{1000-k} \approx 0.975$$

Using normal approximation ($\mu = np$, $\sigma = \sqrt{np(1-p)}$):

$$\mu = 20, \quad \sigma = 4.43$$

$$P(X < 30) = P\left(Z < \frac{30 - 20}{4.43}\right) = P(Z < 2.26) \approx 0.988$$

There is a 98.8% chance that there will be less than 30 damaged items. This indicates that process variability is still an essential area for improvement even with the low defect rate

RESULTS AND DISCUSSION

The findings suggest that production unpredictability has a direct influence on sales performance and product quality. While Factory 2 has a higher volume and more process variance, Factory 1 has a consistent but moderate production capacity. These findings are consistent with Montgomery (2019) and Devore (2011), who state that statistical process variation is one of the most important elements affecting the quality of manufacturing. The statistical method of quality control, namely Six Sigma and SPC, improves reliability and reduces process deviation. This study shows how statistical data analysis and quality control methods are helpful in industrial management.

The following are some of the primary findings: Sales at Factory-2 are greater, but they fluctuate more. Factory-1's process control and stability are good. The likelihood of a faulty product dropped from 2.0% to 1.3%, suggesting a notable improvement. Thus, data-driven choice-making and statistical control methods are essential tools for optimizing industrial processes and ensuring customer satisfaction in capsule-cantered production systems.

CONCLUSION

Feedback from consumers received by XYZ, a renowned food industry business, show the importance of food capsule innovations for managing nutritional content, stability, bioavailability, and manufacturing consistency optimally. The corporation must address these problems scientifically by optimizing formulations, enhancing the sensory qualities of the capsule

material, and unifying Quality Assurance/Quality Control (QA/QC) systems across both plants.

Encapsulation technology is poised for major change, owing mostly to developments in customization and increasingly sophisticated delivery techniques. One significant shift is away from the old paradigm of mass-produced generic medications and toward personalized therapy and nutrition. Thanks to advanced production techniques like 3D printing and microfluidics, both of which enable precise dosages and chemical combinations, future capsules will be highly customized. A significant step toward truly personalized healthcare, these customized products will be appropriately adjusted depending on an individual's distinct genetic information or current health needs.

Furthermore, the number of specialized distribution options would skyrocket. The development of intelligent capsules capable of locating and delivering their payload to very specific physiological targets is central to this approach. One breakthrough that looks to boost therapeutic efficacy while minimizing systemic side effects is the possible use of nanomaterials to deliver drugs directly to injured cells or tissues. The capacity of the encapsulation sector to mix intelligent components with intelligent manufacturing processes largely defines its future direction. This confluence is critical for designing products that meet global standards for sustainability, efficiency, and health while still being extremely successful.

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A Theoretical Examination of the Historical and Aesthetic Unity Between Theatre and Music Disciplines ¹

Ceren ALŞAN KALAFAT¹

Sercan ÖZKELEŞ²

Züleyha EŞİGÜL³

- 1- Bilim Uzmanı: Sahne Sanat Akademi. cerenalsan5@gmail.com ORCID No: 0000-0002-8152-154X
- 2- Doç. Dr.; Ordu Üniversitesi Müzik ve Sahne Sanatları Fakültesi Müzikoloji Bölümü sercanozkeles@odu.edu.tr ORCID No: 0000-0003-2845-5667
- 3- Doç. Dr.; Ordu Üniversitesi Müzik ve Sahne Sanatları Fakültesi Tiyatro Bölümü z.cubuk@odu.edu.tr ORCID No: 0000-0002-9879-3007

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GİRİŞ

The discipline of theatre, as one of the foundational pillars of the performing arts, requires a multidimensional aesthetic and technical competence. This competence is not limited to acting skills alone; it also encompasses a wide range of expressive tools such as voice, body, rhythm, music, improvisation, and staging. Among these tools, music stands out as an indispensable component of theatre, both in terms of expression and performance. Throughout history, the use of music in theatre has played a crucial role in reinforcing dramatic structure, enriching actors' performances, and deepening the emotional connection established with the audience (Annan, 2024; Benedict, 2012; McMillin, 2007).

In traditional theatrical forms, character dynamics built on contrast have been reinterpreted in modern narratives (Akyüz, 2025a: 147), making the relationship between theatre and music evident not only in thematic and formal dimensions but also in historical and aesthetic contexts. This reveals that the musical element has maintained its defining role in the language of the stage—through rhythm, sound, and performance—since the very origins of theatre.

The historical and aesthetic collaboration between theatre and music began in the ritual–musical phase of performance traditions. In this period, the musical element functioned as a ritual carrier within local cultural modes of transmission (Eşigül & Özkeleş, 2019a; Eşigül & Çınar, 2018). Traces of this collaboration are present not only in the history of theatre but also in the history and technical development of music. Scientific studies have shown how the technical production of music overlaps with the bodily and rhythmic performance language of theatre (Eşigül, 2021a; Eşigül, 2021b).

Theatrical genres encompass a broad spectrum—from tragedy to comedy, drama to farce and vaudeville, grotesque to absurd, epic to collage. Adaptation, as a technique that bridges traditional narratives with modern stage aesthetics, holds a particularly significant place in contemporary dramaturgy. Each genre generates distinct requirements in terms of staging and aesthetic expression; however, a shared component consistently emerges: musical skills. A sense of rhythm, vocal usage, singing, vocal techniques, breath control, and tempo tracking are fundamental elements that enhance the actor's performance—whether in a classical tragedy or a contemporary adaptation. Beyond setting the atmosphere, music deepens the actor's expressive language through body and voice, amplifying the dramatic impact. Thus, musical competence is an indispensable component of stage performance across nearly all theatrical forms.

As exemplified in adaptations of folk tales, theatrical practices in which narratives are transformed while the historical and aesthetic collaboration between theatre and music is reproduced (Akyüz, 2025b: 197–198), rhythm, melody, and oral tradition intertwine. In such plays, music

serves as a core element in shaping the dramatic atmosphere. In essence, music holds an inseparable place within the playful nature of theatre. This historical and aesthetic bond manifests itself beyond text-based theatrical practices as well. In ritual-based performances, musical and theatrical layers flow together. For example, “semah” rituals combine collective movement, music, and staging, representing one of the earliest forms of theatre–music collaboration. In performance-centered examples, music acts as the carrier of stage action (Eşigül & Eşigül, 2021: 35–59).

In 2022, as part of a study conducted at the Institute of Social Sciences at Ordu Üniversitesi, a series of literature reviews was undertaken to explore the perceptions, experiences, and evaluations of faculty members teaching in undergraduate theatre/acting programs regarding music courses. The theoretical foundation of this research was built upon the historical and aesthetic unity between theatre and music disciplines. Based on this foundation, the research direction, problem statement, research questions, and methodology were shaped accordingly. The following section presents a review of the relevant literature focusing on the theoretical cornerstones of this interdisciplinary relationship.

METHODOLOGY

Within the scope of this study, “document analysis”, one of the qualitative research techniques, was employed to examine the historical and aesthetic context of the theatre and music disciplines. Document analysis is not only a data collection tool in qualitative research but also a method that involves the systematic examination of printed and electronic materials, providing access to detailed information and enabling the analysis of data throughout the evaluation process (Bowen, 2009).

In this research, literature on the history of theatre and music, play scripts, aesthetic theories, and academic publications were reviewed. Document analysis is particularly effective in theoretical studies as it contributes to the understanding of historical contexts and offers in-depth data (Bowen, 2009; Merriam, 2009; Yıldırım & Şimşek, 2018).

FINDINGS

a. Analysis of the Concepts Included in the Theoretical Examination

Table 1: Introduction Section

Topic / Title	Content Summary	Key Concepts	Key figures / periods
Definition of Theatre	Theatre is a dramatic art that belongs to the realm of rhythmic arts.	Fine arts, rhythmic arts	—
Concept of Mimesis	Theatre is based on imitation (mimesis).	Mimesis,presentation	Aristoteles
Ritual Origins	Theatre evolved from Dionysian rituals in Ancient Greece.	Ritual, Dionysian cult, fertility	Ancient Greek
Emergence of Tragedy and Comedy	Tragedy arose from dithyrambic songs, and comedy from “komos” processions. The chorus was central.	Tragedy, Comedy, Chorus	Aiskhylos, Sophokles, Euripides
Musical Element in Ancient Theatre	Song, dance, and recitative speech were integral parts of theatre.	Recitative, lyre, dance	Oscar Brockett

This stage addresses the origins of theatre and its emergence under the influence of music. It strongly reveals that theatre was born in direct interaction with music. During this early phase, theatre and music functioned as organic components of the same artistic form.

Table 2: Development Section

Topic / Title	Content Summary	Key concepts	Period/Figure
Aristoteles’s	In tragedy, music	Poetics, music in	Aristoteles

Poetics	holds equal importance to language and stage design.	tragedy	
Use of Music and Criticism	When music began to detach from the narrative, it drew significant criticism.	Rhythm, harmony, autonomy	Pratinas, Platon.
Functions of the Chorus	The chorus shaped the dramatic atmosphere and acted as a bridge between the audience and the text.	Chorus, dramaturgy	Ancient Greek
Divergence of Theatre and Music	Over time, theatre and music evolved into separate disciplines.	Disciplinary divergence	—

This stage addresses the transformation of the theatre–music unity. It represents a turning point in their historical relationship, as music began to separate from the narrative and emerge as an independent art form.

Table 3: Conclusion Section

Topic / Title	Content Summary	Key concepts	Period/Figure
Wagner’s Concept of the Unified Art	Advocated for the reintegration of theatre and music.	Gesamtkunstwerk, unified artwork.	Richard Wagner
Wagner’s Applications	Produced a holistic artwork in opera and stage direction by controlling all components.	Music drama, directing.	Wagner
Nietzsche’s Interpretation of Tragedy	Tragedy originates in music; the Dionysian–	Dionysian, Apollonian.	Friedrich Nietzsche

	Apollonian contrast shapes theatrical aesthetics.		
Aesthetic Conclusion	In the modern era, music has been repositioned not merely as a complement to theatre but as its aesthetic partner.	Aesthetic unity.	—

This stage examines the reinterpretation of the theatre–music unity in the modern era. During this period, theatre and music were reunited on an aesthetic plane, with thinkers such as Wagner and Nietzsche providing theoretical frameworks for this relationship.

b. The Historical and Aesthetic Unity of Theatre and Music Disciplines

In terms of its lexical definition, theatre is described as: “1. The place where literary genres such as drama, comedy, and vaudeville are performed,” “2. The art of performing these genres before an audience,” “3. The art of playwriting,” and “4. All written plays” (TDK, 1992, p.1479). Theatre is classified under the category of “fine arts” among the two main categories—practical/industrial arts (craft) and fine arts (Servetoğlu, 2002, p.31). Fine arts are further divided into three subcategories: plastic arts (architecture, sculpture, relief, painting, miniature, ornamentation), phonetic arts (poetry, music), and rhythmic arts (theatre, pantomime) (Mülayim, 1994, p.21). As a rhythmic art, theatre, like other forms in this category, is fundamentally shaped by movement.

According to classical classification, theatre also falls under the category of dramatic (rhythmic, hybrid) arts. The most significant element that grants theatre its dramatic character is its inherently imitative (mimetic) nature. Theatre has been understood as a form of “mimesis” within the historical and cultural conditions of its emergence. The first thinker to emphasize the mimetic nature of theatre was Aristotle (2005). Before discussing his views on theatre, it is appropriate to clarify the concept of “mimesis”. Mimesis is defined as:

A fundamental concept of ancient aesthetics and drama theory, **mimesis** serves as the foundational category for the theory of representation and as an aesthetic notion developed to explain the specificity of art. Meaning “imitation,” *mimesis* encompasses a wide range of interpretations, from merely reproducing reality to freely creative

emulation. In the first three chapters of the **Poetics**, Aristotle sought to establish a system of mimetic arts—that is, arts that reflect reality—placing the playwright, actors, chorus, and musicians within the category of mimetic artists. According to Aristotle, who positioned **mimesis** at the center of art theory (aesthetics), art is an imitation of humans in motion and action (Çalışlar, 1993).

The art of theatre evolved from ritual practices in Ancient Greece during the Archaic period, dated to the 7th and 6th centuries BCE. Among these rituals were agricultural ceremonies held four times a year in honor of Dionysos, whom the Greeks worshipped as the god of abundance and fertility. Numerous rituals dedicated to Dionysos existed within Greek society, many of which were secret ceremonies. These rituals, classified under themes such as “Death and Rebirth,” “Sacrifice and Fertility,” “Sexuality, Wine, and Feast,” and “Divine Representation and Mask” (Sarıkaya, 2019, p.24), facilitated theatrical-like performances that gave rise to drama—marking the transition from ritual to drama in more familiar terms.

The cult of Dionysos is the primary source of Greek drama, which emerged as a literary form. Although it inherited certain characteristics from older divine cults, what makes the Dionysian cult unique is its creation of the two major dramatic forms of theatre today: comedy and tragedy. Dionysos is considered the creator of tragedy and comedy because he embodies the dualities of suffering and death, joy and life (Green & Handley, 1995, p.23). As the hero of myths containing such dualities, the god of abundance and fertility embodies a state of liminality, which in Dionysian rituals produced a condition of “opposites coexisting.” Ancient Greek theatre, as an extension of Dionysian rituals, developed artistic qualities while retaining its religious emphasis, transforming this principle of coexistence of opposites into a foundational concept of the plays themselves (Sarıkaya, 2019, p.24).

The first dramatic form of Ancient Greek theatre, tragedy, is believed to have originated from dithyramb songs performed during Dionysian rituals in the 7th and 6th centuries BCE. Similarly, comedy is also considered to have evolved from these rituals. In both dramatic forms, the chorus predominantly performs ritualistic songs. According to Şener:

Those who sang these choral songs would don the guise of the goat, the sacred animal of Dionysos, perform songs, and engage in coarse, rustic dances. As these choral songs gradually began to be written according to specific patterns and acquired a poetic quality, the addition of a speaking performer, the *hypokrites* (responder), created the core of theatrical dialogue. The combination of the Greek word *tragos* (goat) and *aoide* (song) gave rise to the speaking song form called *tragoidia* (tragedy), which evolved from a component of religious ritual into an artistic performance.

Comedy is believed to have originated from Dionysian grape harvest festivals. The festive processions held in villages, called *komos*, celebrated abundance and fertility. Comedy emerged as the risqué imitations performed during these playful processions became

structured and organized (Şener, 1998, p.16).

The birth of theatre in Ancient Greece is traced to the Great Dionysia Festival, which began in the 6th century BCE. The sacred hymns performed during these festivals provided the foundation for the emergence of theatre. During the tyranny of Peisistratos in Athens, state-supported competitions with awards for poets facilitated the transition of theatre from ritual to art. This process allowed theatre to establish itself as an independent art form that has endured to the present day. Based on this historical context, the historical and aesthetic unity between theatre and the discipline of music can be traced back to its origins in Ancient Greece.

In the earliest theatrical performances, which were still enacted as rituals before evolving into a formal art, the *dithyramb* chorus constituted a significant musical element. During the transition from ritual to drama, various speech styles emerged in the performances. Brockett (2000, p.36) identifies these styles as spoken dialogue, recitative (melodic speech), and song. According to him, the necessity for actors to train and develop their voices—similar to today's opera singers—demonstrates that voice served as the primary medium of expression. In these musical and dance-infused performances, where male actors played female roles and all performers wore masks throughout the play, songs and melodic speech were prominently featured.

The essence of ritual forms preceding the emergence of drama is assumed to have been composed of rhythm, dance, and music. The Dionysian cult was characterized by a fervent and ecstatic belief system. Within this system, wine was considered a gift from the god, and during rituals, the religious ecstasy induced by wine—symbolizing the god's blood—transformed mortal devotees into Dionysos's sacred flock of goats during these moments of intoxication. Devotees worshipping Dionysos performed dances on mountain slopes, particularly near Delphi and Thebes, accompanied by flutes, tympana, and clappers during these exuberant ceremonies held in his honor.

In the 5th century BCE, the artistic performances in Athens evolved from Dionysian rituals into dramatic competitions. The great Greek poets whose written texts have survived to the present day—Aeschylus, Sophocles, Euripides, and Aristophanes—developed the theatrical forms they had learned from primitive ritual remnants, emphasizing imitation (*mimesis*) in their structural interpretation. Aristotle (384–322 BCE), the first thinker to present a comprehensive theoretical view on art and theatre based on Ancient Greek plays, defined tragedy in his work *Poetics*, subsequently enumerating and explaining its constituent elements. According to him:

These elements are: *plot (mythos)*, *characters*, *language*, *thought*, *spectacle (decoration)*, and *music*. Among these, two—language and music—constitute the means of imitation, one—spectacle—represents the manner of imitation, and the remaining three—plot, characters, and thought—form the objects of imitation. These comprise all the

components of tragedy, though not every tragedian employs them all. For a tragedy, however, relies upon a unity of spectacle, characters, plot, language, music, and thought (Aristotle, 2005, p.23).

Among these elements, the most important is the plot, followed by the characters. Aristotle's emphasis on plot is evident in his definition of tragedy. In his words, "Tragedy is the imitation of a serious, complete action with a certain magnitude; it employs embellished language; it uses appropriate means for each of its parts; and it is enacted by agents who perform the action" (2005, p.22). As seen in this definition, Aristotle considers the sequence of events to be the most essential component of tragedy. According to him, the events must be appropriately connected, for tragedy, unlike character, is the imitation of actions within a life that unfolds through joy and suffering. While tragedies can exist without a strong emphasis on character, they cannot exist without a plot or action (2005, pp.23–24).

As emphasized by Şener (2003, p.32), among the elements of tragedy, plot, character, and thought constitute the objects of imitation, whereas language, spectacle, and music serve as the instruments of imitation within tragedy. The language (diction) of tragedy may be either metrical or non-metrical. Song is considered the principal ornament of tragedy. In Ancient Greek theatre, the chorus represents the classical model of theatre–music unity. The chorus not only conveys the narrative but also deepens the dramatic impact through music. This aspect clearly demonstrates the aesthetic foundations of their historical unity (Eşiğül, 2020b).

In his work *Poetics*, Aristotle also addresses the relationship between tragedy and music. While placing plot first among the elements of tragedy, he subsequently lists character, thought, and language. According to him, "Among the means that enrich the art of tragedy, the most important of the remaining elements is music" (2005, p.26). Alongside language and spectacle, music constitutes the third expressive medium, uniquely combined in the form of tragedy within Ancient Greek art. When used together with spectacle, music contributes to producing the distinctive effect of tragedy, a role that Aristotle explicitly discusses in *Poetics* (Şener, 2003, pp.41–43).

Oscar Brockett (2000, p.38) emphasizes that music was an integral component of Greek theatre. According to him, music accompanied sung passages and formed an inseparable part of the choral songs. It was rarely used independently or solely to create special effects. Brockett suggests that, initially, musical accompaniment likely served to facilitate the intelligibility of the words. From the time of Euripides onward, however, musical accompaniment became more elaborate, with many words extended through long sustained notes on single syllables. Brockett also notes that the composer of the music is generally unknown; while the playwright may have composed it in some instances, it is more likely that the flute player of the period performed this task.

Tragedies represent the earliest form of theatre in which musical elements in the form of recitative and song are evident. In the surviving

tragedy texts from Aeschylus and Sophocles to the present day, it is apparent that sections of spoken dialogue, recitative, and song coexist. According to Aristotle's classification, tragedy is divided into three main parts: *Prologos* (introduction), *Epeisodion* (middle section), and *Exodos* (conclusion) (Latacz, 2006, p.61).

1. *Prologos* ("prefatory speech"): The section of the tragedy preceding the chorus's entrance is called the *Prologos*.

2. *Epeisodion* ("episode"): This denotes the portion of the tragedy between choral songs, serving as an inserted episode. In this section, choral songs and actor episodes follow one another. An "Epeisodion" can be short or long and may involve the entrance and exit of one or multiple actors. In some tragedy texts, "Epeisodion" is replaced by "Stasima" (choral odes) and "Kommos" (lamentations).

3. *Exodos*: All spoken sections following the final choral song are referred to as the "Exodos".

Brockett (2000, p.38) notes that in Greek dramas, a single flute—similar in pitch to the modern oboe or clarinet—was used to accompany musical sections. In addition, other instruments, including the lyre, pipes, and various percussion instruments, were employed only when necessary to create special effects. The flutist was positioned in front of the chorus, within the circular orchestra at the center of the amphitheatre, although their precise location later became uncertain. According to some historians, the wooden shoes worn by the flutist during performances helped maintain the tempo of musical sections. In certain performances, the actor would also play the lyre to accompany their own recitative or song.

Zimmermann (2017, p.41) states that in a 5th-century BCE performance, the most spectacular moments were those in which songs were sung and dances performed by soloists or the chorus. As he emphasizes, music, dance, and staging were indispensable elements of Ancient Greek performances. The inseparable duo of music and dance in Greek drama required the use of different choreographies and rhythms during a performance. Consequently, musical forms and choreographies became the most significant artistic means for conveying sensory experience. Both ancient and modern theorists agree that through these elements, character traits, emotional states, and actions can be effectively communicated.

In Greek dramas, careful attention was paid to maintaining a balanced relationship between speech and melody. However, after the Persian Wars, this balance began to shift. Words and content increasingly receded into the background, while the influence of music grew. A surviving choral text attributed to Pratinas criticizes this change in music (Zimmermann, 2017, p.42). The chorus excerpt cited by Zimmermann from Pratinas critiques the way music comes to the forefront over the meaning of the play, transforming drama into a spectacle. Notably, even in making this critique, music itself is employed as a medium.

What is all this noise? And what is this chorus and these dances?
Who are those daring to approach Dionysos' altar with such clamor?

...

The Muses have elevated song above all else.

Yet the flute should only play a supporting role, for the flute is but a servant.

At most, it should lead in merry processions or in quarrels at doorsteps among drunken men.

Play this [flute] with the breath of a colorful frog!

This flute, with its incessant shrill sound that cannot keep rhythm and its perforated body, causes a waste of spit—let it go to ruin! (Zimmermann, 2017, p.43)

The reason for Pratinas' choral critique of music's prominence lies in the widespread practice in Greek drama of using sound or musical instruments as alienated auditory agents, independent of the story, rather than conveying the content of the narrative. Plato referred to this phenomenon as "musical mimesis" and sharply criticized it. Musical mimesis, which denotes a performance based on imitation, relies on the variety of rhythm and modes, particularly the variability of rhythm and harmony (Zimmermann, 2017, pp.44–45). This critique targets the separation of the three main components of a dramatic performance—speech, music, and dance. While the historical and aesthetic unity between theatre and music, which began in Ancient Greece, would later diverge into distinct disciplines, during the centuries when Greek drama flourished, the chorus predominantly used musical elements in harmony with the themes and content of the plays. Surviving papyri and inscriptions show that most ancient poets and composers sought to fully exploit the melodic potential offered by language in their works. Here, we can observe that the chorus fulfilled significant functional roles:

In Greek theatre, the chorus served several functions. First, it acted as a character in the play, offering advice, expressing thoughts, posing questions, and sometimes taking an active role in the action. Second, it often established the social and moral framework of events, providing a normative perspective for evaluating the action. Third, by demonstrating the reactions expected from the audience, the chorus functioned as an ideal spectator on behalf of the playwright. Fourth, it contributed to establishing the emotional tone of the play and individual scenes, thereby enhancing dramatic effect. Fifth, by incorporating movement, spectacle, song, and dance, it added multiple layers to theatrical effectiveness. Sixth, through pauses and suspensions, the chorus encouraged the audience to reflect on what had occurred and what was about to happen, fulfilling an important deliberative function (Brockett, 2000, p.37).

In both tragedies and comedies, as a rule, the chorus would occasionally enter the orchestra circle in the amphitheatre with a grand procession, either individually or in small groups from different directions. Many of the melodic patterns employed by the chorus were performed in unison, combining song and dance, although in some

performances the chorus was divided into two groups, one dancing first and then singing. At times, the chorus may have engaged in dialogue with a character, and individual chorus members might occasionally deliver a single line. Similar to actors, chorus members are assumed to have responded appropriately to the situations in the story. However, how the chorus was grouped during episodes, arranged within the orchestra, or divided during choral songs remains unknown (Brockett, 2000, p.37).

Initially, the historical and aesthetic unity of theatre and music that emerged in Ancient Greek theatre was disrupted as the chorus gradually lost its central importance, appearing in performances independently of the main plot and in symbolic roles. In other words, unlike in Ancient Greece, music ceased to be one of the two primary components of a performance and instead continued to exist as a supporting element within text composition and staging. The theatre–music relationship persisted in dramatic texts—ranging from dark humor to black comedy (Akyüz, 2019)—where identity elements were foregrounded (Akyüz, 2022a).

By the nineteenth century, anti-realist tendencies began to emerge in theatre. Two thinkers had a significant influence on these developments: Richard Wagner (1813–1883) and Friedrich Nietzsche (1844–1900). Both advocated for the use of **theatre** and **music** together as a meaningful unity, reminiscent of their integration in Ancient Greek practice.

Wagner's conception of art was shaped under the influence of Hegelian philosophy and the Romantic understanding of art. Positioned against mimetic realism, Wagner viewed art as an expression of humanity and human nature. The life-creating impulse behind art introduces us to the instinctive and the unconscious. Wagner regarded art as a religious, immortal, and inherently necessary mode of expression arising from life itself; true art is neither a display of affectation nor a mere whim. According to him, one can apprehend the fundamental truths of life only through art. Given art's profound function, its subgenres cannot individually convey this depth; rather, it is through the collective effort of all the genres within a work that expression is achieved. Wagner argued that the art of the future should unify all arts into a single work—the *Gesamtkunstwerk* or *total work of art*. Such a unified work represents the ideal of artistic synthesis (Şener, 2003, p.222). According to Brockett, Wagner advocated for a model in which the music drama achieves its full effect—that is, a stage in which music and speech coexist, rather than relying solely on spoken theatre:

“He proposed that drama should ‘be soaked in the magical spring of music’ to combine the mastery of Shakespeare and Beethoven. Compared to spoken drama, in which interpretation shifts according to the actor's personal whims, he argued that melody and meter would exert greater control over the performance. For Wagner, the

effectiveness of music drama depended both on the staging and on the composition itself” (Brockett, 2000, p.489).

Wagner first introduced himself in 1883 by composing a symphony and an overture. Appointed as the music director of the Magdeburg Theatre in 1834, he composed his first opera, “Liebesverbot”, in 1836 and staged it at the theatre he directed. Between 1837 and 1839, he served as a conductor in Riga, where he began writing the opera “Rienzi”, which he later completed in Paris. Although Wagner referred to his years in Paris as his “years of hunger,” during this period he composed “The Flying Dutchman” (Der fliegende Holländer), one of his most frequently staged works. Wagner’s works up to this point are considered his “First Creative Period.” With his evolving style and the new effects he brought to music, he began to be recognized as an innovator. His so-called “Second Creative Period” spans the years 1842–1859 (Aray, 2019, p.5).

Wagner regarded music as equally essential in modern drama as it was in Ancient Greek theatre. According to him, among all the arts, dramatic art holds the highest position. Therefore, drama should be organized to be perceived through the senses rather than through reason. The essence of dramatic art, for Wagner, is music; he stated that “music is the soul of drama.” Through the composer’s vision, **music** becomes the most direct means of expressing the profound contradictions of the human spirit, serving as an abstract, primal, and psychologically deep medium (Candan, 2013, p.5). As these ideas indicate, Wagner viewed drama as incomplete without music. In both his works and theoretical writings, the type of drama he advocated is one in which music addresses the human senses and penetrates the psychological and primal depths of the human soul, employing mythological, symbolic, and imaginative elements. Wagner’s vision of future dramatic art emphasized that “music, literature, and the art of acting should collaborate to create a unified effect on the audience” (Candan, 2013, p.7).

To realize the new type of drama Wagner proposed—which requires a strong integration of theatre and music—the role of the “director” became essential. Wagner argued that the effectiveness of music drama depends both on the performance and on the composition itself. To transform dialogue and music into a *Gesamtkunstwerk* (unified work of art), he maintained that the writer-composer must supervise every component of the work (Brockett, 2000, pp.489–490). Wagner believed that opera exemplified the ideal of the unified art, reflecting the purity of this ideal. In opera, as the poet, actor, lighting designer, and visual artist converge with the composer’s work, a form of art free from materialism and blemish is created. According to him, the dramatic element expresses reality, music conveys formal beauty, and emotion is articulated through both (Holt, Rinehart & Winston, as cited in Şener, 2003, pp.222–223).

The German philosopher Friedrich Nietzsche (1844–1900), in his first book *The Birth of Tragedy from the Spirit of Music* (2014),

emphasizes the unity of theatre and music. According to him, the birth of tragedy originates from the spirit of music. The tragic form emerges from the union of the instinctual (Dionysian) and the rational (Apollonian). In Nietzsche's thought, the Dionysian represents music, while the Apollonian represents the art of sculpture. Theatre is a form of art in which musical elements and sculptural three-dimensionality converge. Tragedy arises because the Dionysian (essence) and Apollonian (form), despite their opposition, are able to coexist side by side. Nietzsche argues that in pre-Socratic Ancient Greek theatre, tragedy was produced through the harmonious use of theatre and music, and these two disciplines were integrated. However, from the time of Socrates onward, Greek art began to lose this ritualistic essence, and theatre degenerated into an art apprehended solely by reason. Consequently, according to Nietzsche, Ancient Greek art lost its uniqueness. From the playwright Euripides onward, the ritualistic tragedies, in which theatre and music were structured in harmonious balance, disappeared from the historical stage.

In Greek tragedy, the Dionysian element represents ecstasy, the fire of spring, intoxication, and the rapture of being carried away, while the Apollonian element embodies a calm, ordered artistic understanding (Şener, 2003, p.223). Nietzsche identifies these two aesthetic principles as indicators of the historical unity of theatre and music. In summary, according to Nietzsche, the tragic form in Ancient Greek art, which once presented opposites in balanced coexistence, was born from the spirit of music. However, as tragedy moved away from music, it lost its essential character and transformed into the dialogue-based drama form perceived today. Şener (2003, p.224) elaborates on Nietzsche's analysis: the Apollonian element manifests in dialogue, representing order, imagination, society, and the state. It is associated with the plastic arts and excludes excess or disorder. The Dionysian element, by contrast, is embodied in the satyr chorus, reflecting primitive excitement, ecstasy, fervor, joy, and a sense of power. Human communion with nature and self-healing occurs through the chorus. These two creative forces ignite each other, driving the evolution of art. Tragedy nobly unites them, blending the measured form of epic poetry with the exuberance of choral song and dance.

The chorus embodies the crowd inspired and roused by Dionysos; it is mesmerizing and ecstatic. Apollon, by contrast, dominates the stage with pure, clear, and intelligible poetry. The primal forces from nature are shaped and disciplined by Apollon's order. After the Dionysian element faded, Greek tragedy "died," for the essential power of tragedy—myth—was replaced by reality; the Dionysian myth was supplanted by optimistic dialectics, poetic justice, and the *deus ex machina*. The poet Euripides is considered responsible for this decline, as he infused drama with intellectual reflection, diminishing the influence of primal force. Hence, Ancient tragedy no longer spoke the

language of Dionysos, but of Socrates (Nietzsche, as cited in Şener, 2003, p.224).

The two aesthetic principles distinguished by Nietzsche— the Dionysian and the Apollonian—not only define the essence and form of theater but also offer an interpretation of two types of human perception in European cultural history. According to Nietzsche, the modern world is under the influence of Alexandrian culture; this culture idealizes the “theoretical man,” endowed with the highest powers of knowledge and serving science, whose ancestor is Socrates (Kuçuradi, 1995, p.136). While critiquing contemporary European culture, Nietzsche emphasizes that the rare and exceptional “tragic man,” creative and endowed with high qualities, has been lost due to the “theoretical man” shaped by Socratic reason (Kuçuradi, 1995, pp.69; 134–136).

Nietzsche, as a philosopher, developed his own reading and definitions of humanity from his philosophical perspective. He emphasized that, up until Wagner, the type of “theoretical man” shaped by Socratic reason had permeated all elements of European culture. When Nietzsche encountered Wagner’s musical drama, he was filled with great excitement and sensed the possibility of a cultural revival of the tragic age. As Şener points out:

Nietzsche announces that a new tragic age has emerged after the age of science. Opera is a modern incarnation of Greek tragedy. The shepherd in opera can be likened to the satyr in tragedy. In Wagner, Apollo once again begins to speak in the language of Dionysus. Just as in ancient Greece, when Dionysus began to speak through the language of Apollo, the highest ideal of tragedy was realized, giving rise to the German myth. This tragedy does not purify through eliciting pity and fear in the Aristotelian sense, nor does it establish the highest moral order as in Hegel. Tragedy is ritual, myth, and suffering. This tragedy is lyrical rather than epic. In the face of life’s purposelessness and indifference, it represents faith in eternal life and metaphysical comfort. Such art is necessary because once a person comprehends the terrifying absurdity of existence and sees daily realities in the light of nature’s truth, they are unwilling to act (Hamlet), paralyzed as if (Ophelia). It is the artist’s task to soothe this awareness of absurdity, to alleviate suffering. Tragedy, rich in both meaning and natural emotion, succeeds in this. It reintegrates the human being with the universe (Şener, 2003, p.225).

In the twentieth century, the disciplines of theater and music were reconsidered both theoretically and practically. In this century, during which contemporary interpreters highlighted the avant-garde features of theater, the classical conventional tools of theater were deconstructed and reorganized in different contexts.

Adolphe Appia (1862–1918), a designer who worked on stage technique and architecture, argued in his works *La Mise en Scène du Drame Musical de Wagner* and *Music and Staging* that staging should be based on the presence of the actor, emphasizing the actor’s physical

existence as the foundation of theatrical presentation. During Appia's time, the tradition of "Olympic Games" had been revived, and there was a growing global interest in the three-dimensionally moving human body. This interest manifested in the arts through artists like Rodin in sculpture, Loie Fuller and Isadora Duncan in dance, who approached the human body with freedom and expressivity. In his stage theory, Appia similarly placed the actor at the forefront (Candan, 2013, p.10).

According to Şener (2003, pp. 232–233), Appia, who claimed that the harmonious movement of theater is best expressed through music, also sought to convey this movement on stage with the expressive power of lighting. Another element that supported this aim was music. Appia aimed to unify the four plastic elements of the stage—vertical decor, horizontal floor, moving actor, and lighting of the stage space—by developing new proposals, thereby pioneering modern theater's lighting theory. In stage design, columns, draperies, and walls were stripped of unnecessary details and used in three dimensions, which, in Appia's design logic, provided actors the opportunity to move horizontally and vertically. In short, Appia realized the concept of stage space that accommodates the actor's movement. He believed that only light and music could achieve this design quality behind the visual image. For Appia, light and music give a vivid form to the appearance of objects on the surface.

As Brockett (2000, p. 508) notes, the source of Appia's innovative approach to theater design dates back to his educational years. Born in Switzerland, Appia first encountered theater during his musical training. Known to be influenced by Wagner's music, plays, and theoretical writings, Appia realized that the conventional structure of operas—including Wagner's—did not fully reflect Wagner's theories. After years of reflection, he developed his ideas and presented them not only in the works mentioned above but also in *The Living Stage*. Emphasizing the role of light in unifying all visual elements and achieving a holistic composition, Appia argued that lighting conditions, because they alter emotions and actions and serve as a counterpoint to music, must be carefully directed like musical notes to create a "light orchestration." These ideas highlighted the director's mission even more in modern theater thinking. After Wagner, Emile Jacques Dalcroze had the greatest influence on Appia's work.

Emile Jacques Dalcroze (1865–1950) developed a method of dance gymnastics called eurhythmics. The core of this work is centered on the concepts of rhythm and movement. Eurhythmics is an approach designed to teach musical concepts through physical movement. Fundamentally, it has been applied as a pedagogical method primarily for music education:

The aim of "eurhythmics" was to enhance the student's sensitivity to music. The focus was not on interpreting music, but on translating it

into spatial and temporal forms. Students were encouraged to use their bodies like musical instruments, to follow rhythms, and to analyze them. In various publications and announcements, Dalcroze consistently emphasized that “eurhythmics” was not a method of teaching dance, but an activity fundamentally equivalent to playing any musical instrument (Candan, 2013, pp. 6–7).

After his collaborations with Dalcroze, Adolph Appia began to focus more on the art of acting. Appia believed that the “eurhythmics” method made significant contributions to the art of theater. Accordingly, in his second major theoretical work, *L'Oeuvre d'Art Vivant* (The Living Work of Art), published in 1919 and dedicated to Walt Whitman and Dalcroze, he stated: “The human body reaches the level of an expressive instrument when it willingly accepts the changes demanded by music.” In a 1923 article, he further reflected: “The body, responsive to the demands of music, masters and commands space. It disregards the habits and deep-rooted traditions of old times; all must conform to its measure and follow its example. Is not the human being the measure of all things?” (Appia, as cited in Candan, 2013, p.12). The interaction between Appia and Dalcroze provides a concrete example of the historical and aesthetic unity of theater and music in the twentieth century. As Brockett emphasizes:

Dalcroze was also the creator of the concept of “eurythmy” [tartim], in which students were guided to respond physically to musical rhythm and to experience music through embodied perception. Under Dalcroze’s influence, Appia believed that the rhythm inherent in a text served as the key to movement on stage, and that mastering this rhythm would unify the spatial and temporal elements of a production into a coherent and harmonious whole. Appia collaborated with Dalcroze on several productions at Dalcroze’s school in Hellerau and designed, for this school, the first modern theater without portals or a proscenium, featuring a completely open stage (2000, p.508).

Building on his collaboration with Dalcroze, Appia developed designs he called “rhythmic spaces,” arguing that every detail could be expressed through movement and that the elements of time and space could form a harmonious whole; he relied on rhythm to achieve this integration of temporal and spatial elements (Şener, 2003, p.233).

The historical and aesthetic unity of the disciplines of theatre and music has persisted from Ancient Greece to the present day. Particularly in pioneering twentieth-century theatrical practices, the music discipline was heavily utilized to transcend the word-centered, dialogue-heavy, classical drama-based theatre conventions. Filippo Marinetti (1876–1944), who signed the first manifesto of Futurism before World War I, advocated for theatrical performances that emphasized themes of war, militarism, and patriotism, based on the dynamism of the machine age. This movement, which emerged in the early twentieth century under the influence of rapid technological development, was essentially founded on

the principle that art should embody characteristics suitable for the machine era (Şener, 2003, pp. 238–239). According to Marinetti, the Variety Theatre was the only form of theatre that fully engaged the audience; spectators sang along with the performers, accompanied the orchestra, and participated in improvised dialogues (Candan, 2013, p. 60).

Not only Futurism, but also historical avant-garde theatre movements that emerged between the two World Wars—such as Expressionism, Dadaism, and Surrealism—as well as political theatre approaches exemplified by Erwin Piscator and Bertolt Brecht, demonstrate the aesthetic unity of theatre and music disciplines. Examples can also be found in solo performances, where the natural unity of music and theatre reappears in staging and narrative practice. In modern theatre, within solo productions, music has functioned as a powerful narrative tool, partnering with the character through approaches such as creative writing, post-dramatic narration, and multiple character representation (Akyüz, 2025c, pp. 58–84).

In contemporary performance practices and interpretations, traces of the historical and aesthetic collaboration between theatre and music continue to be observed. Richard Schechner's performance theory allows for a rethinking of the interaction between theatre's ritual origins and music. In environmental theatre applications, music functions as a mediating element that enhances the interaction between space, performer, and audience (Eşigül, 2020a). Additionally, in the ceremonial theatre ideas of Antonin Artaud and their reflections in post-1960 performative theatre practices, contemporary forms of theatre that integrate dance and music become prominent. For example, Playback Theatre, by emphasizing creative spontaneity and immediate performance, enables performers to experience both theatrical and rhythmic-musical expression simultaneously on stage; in this context, the historical and aesthetic unity of music and theatre becomes visible again within the creative process of spontaneous performance (Akyüz, 2022b and 2022c).

In the performative transformation of theatre after the 1960s, the historical and aesthetic unity between theatre and music has continued. A notable example of this is Tadashi Suzuki's body-centered theatre aesthetics in contemporary Japanese theatre, which demonstrates how the rhythmic structure of music supports dramaturgical tension. In Suzuki's theatre, music functions as an element that structures the physical energy of the actor and shapes the stage aesthetics (Eşigül, 2023a). During the same period, Grotowski's approach returned theatre to its ritual origins, integrating music with the actor's body. Through voice, breath, rhythm, and the dramaturgy of musical elements, theatre on stage became a form of "living ritual" (Eşigül, 2023b).

After the 1960s, theatre intersected with music and ritual

elements on an interdisciplinary aesthetic plane. Music contributed to meaning-making on the theatre stage as a shared language of experience (Eşigül, 2019). In contemporary theatre forms, such as physical theatre, the buffoon aesthetic—a form of grotesque theatre integrating musical and physical elements—effectively employs music. Here, music becomes not merely an aesthetic tool but an inseparable component of the stage image (Arsoy Baltacıoğlu & Eşigül, 2019). In studies conducted at the Theatre Research Laboratory, staging practices have been explored beyond conventional theatre productions, emphasizing research- and experience-based approaches. Music has been treated as one of the constitutive elements of performance. Thus, the theatre-music union is positioned not only as an aesthetic element but also as a fundamental dynamic of “actor-centered creation” (Budak & Pazvantoğlu, 2025).

The direct impact of music on stage performance can be observed in improvisational theatre practices. Research on how rhythmic styles shape an actor’s stage motivation and dramaturgical energy demonstrates that music becomes a triggering element within acting practice (Eşigül & Özkeleş, 2019b). Similarly, in interdisciplinary artistic productions such as Performance Art and Dance Theatre, the aesthetic integration of theatre and music disciplines continues to persist.

CONCLUSION

The relationship between theatre and music demonstrates a multi-layered developmental trajectory, extending from ritual origins to contemporary performance aesthetics. In ritual practices, music served as the carrier of stage action; during aesthetic transformations, it became a dramaturgical component; and in contemporary performance practices, it has evolved into a structural element shaping the interaction between actor, space, and audience. This trajectory indicates that, throughout the historical continuity of theatre, music has not merely functioned as an “accompanying” element but has also occupied a foundational role as a dramatic language.

In this context, the theoretical examination conducted in this study clearly demonstrates the strong aesthetic bond between the disciplines of theatre and music throughout history. At the initial stage of the analysis, theatre and music are observed to exist in a natural and inseparable unity. In classical periods, dramatic narrative and musical structure complemented each other, functioning as an integrated whole on stage. Music reinforced emotional expression and rhythmic organization, while theatre conveyed the impact of music through dramatic performance. The aesthetic understanding of this period was built upon interdisciplinary cohesion, offering the audience a unified artistic experience. Thus, the interaction between theatre and music

reflected the artistic sensibilities of the time both formally and conceptually.

During the developmental phase, the unity between theatre and music weakened to some extent, and processes of separation emerged. In the Romantic and early modern periods, theatre increasingly gained a verbal, dramatic, and independent mode of expression. Music, on the other hand, developed its own aesthetic boundaries and emerged as an independent discipline. Although the bond between the disciplines was not entirely severed, the forms of interaction changed; the relationship between music and theatre continued largely on a symbolic or indirect level. This period represented a temporary dissolution of aesthetic cohesion, highlighting the independent effects of each discipline in shaping audience experience.

In the final stage, however, theatre and music reconverged in the modern period, with interdisciplinary harmony becoming evident once again. Contemporary theatre positions music as an integral element of stage experience, integrating it into dramatic narrative. This reunification demonstrates both aesthetic and historical continuity, and the dialogue between the disciplines offers the audience a cohesive artistic experience. Consequently, the historical relationship between theatre and music is not merely a reflection of the past but also forms a foundation for contemporary aesthetic understanding. The theoretical analysis underscores the aesthetic significance and historical continuity of interdisciplinary interaction, providing an academic framework to comprehend the reciprocal relationship between theatre and music.

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