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Among the measures taken by the journal upon the arrival of the research are as follows:

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4. The Arabic margin is written in scale 12 with the same type of font, while the English margin is written in scale 10 with the same type of font used.
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.All appendices are mentioned at the end of the paper after references.

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Prof. Dr. Omer El Sheikh Hago El Mahdi
Editor-in-chief of the Journal of Northern Europe Academy for Studies & Research
In the name of of Allah the Merciful

Editor-in-chief

Dear researchers, the Northern European Academy in Denmark (**NEA)** is a scientific and cognitive research edifice concerned with the educational fields and human sciences, represented in academic disciplines concerned with society and its social relations, based primarily on empirical methods. These fields usually include various human educational sciences such as archeology, regional studies, communication studies, cultural studies, history, law, linguistics, political science, and the contemporary applications that have been developed to make the reality of man and his future in all forms of his social, cultural, political, economic, intellectual, and historical existence as a subject. Thus, **NEA** contributes to consolidating the foundations of sustainable community development. From a holistic perspective that takes into account the social, economic, and political dimensions, by making use of different approaches and methodologies for community development, through scientific research and community activities directed at decision-makers, academics, and societal segments. The Academy always works to be a reliable source, and reference locally, regionally, and globally.

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FULL PAPER

"Psychological and Procedural Pressures on Muslim Minorities in Diaspora Countries and Their Link to Rising Crime Rates: An Analytical Study in Light of Islamic Jurisprudence and Contemporary Realities"

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Abstract:

Many Muslim immigrants in Western countries suffer from restrictions on freely practicing their normal lives and attempts to associate them with terrorism and Islamophobia with the Islamic creed. This has resulted in restricting Muslims from practicing their religion. While Muslims' residence in diaspora countries is regulated by Islamic jurisprudence, they are subjected to psychological and procedural pressures and a fierce assault against them. This has resulted in effects of narrowing Muslims' freedoms, and the deviation of some due to weak religious commitment towards crime due to the restrictions on practicing their worship, and creating barriers between them and the societies in which they live, and forcing them to assimilate into the new societies even if they contradict their beliefs.

Keywords: Psychological pressures, minorities, diaspora, Islamophobia, dar al-harb, Muslim minority

Introduction

Islam accords utmost care to all its subjects, as evidenced by the Prophet's hadith: "You are all shepherds and each of you is responsible for his flock. The ruler is a shepherd, the man is a shepherd to his family, and the woman is a shepherdess and is responsible for her husband's house and his offspring.(Al-Bukhari, year: 13)

Among these subjects are the Muslim minorities in non-Muslim countries, who today face numerous challenges that have intensified, especially in the fierce media onslaught following the events of September 11th, when enemies of Islam attempted to associate it and Muslims with terrorism ("Islamophobia"). The situation was further complicated by their lack of unity under a single entity and framework and restrictions imposed on their freedoms by the authorities in those countries.

The researcher shed light on the pressures exerted against Muslims in the name of freedom and integration to pass an agenda of restricting Muslims' freedoms. The study also aimed to clarify the ferocious recurrent attacks against Islam, attempts to demonize it, and associate it with terrorism ("Islamophobia"). For all these reasons and more, I deemed it appropriate to tackle this topic under the title: "Psychological and Procedural Pressures on Muslim Minorities in Diaspora Countries and Their Link to Rising Crime Rates: An Analytical Study in Light of Islamic Jurisprudence and Contemporary Realities".

Research Methodology

In this research, I will follow the inductive, descriptive, and analytical method.

Research Tools

This research follows the inductive, descriptive and analytical objective methodology. It relies on primary sources, references, fatwas, annual and official reports in particular, as well as conferences, seminars, lectures, and their coverage on the internet, magazines and newspapers, to monitor this issue. As for previous studies, there are many books written about immigration and its problems. However, I did not come across a study specifically discussing crimes committed by Muslim immigrants, public opinion survey.

Scope of the Study

The study includes the category of Muslim immigrants in The United Kingdom, North America, Canada and Uganda who are subjected to procedural and psychological pressures that may lead to committing crimes. In the future, the study will expand its geographical scope to include all non-Muslim countries inhabited by Muslim immigrants or Muslim citizens of those countries.

The Jurisprudence of Minorities

The jurisprudence of minorities is a collection of jurisprudential rulings, issues, and fatwas related to a minority of Muslims living in diaspora countries. It may take the form of general jurisprudence or branch jurisprudence. The concepts of minority and majority are

relative in reality. Socially, a minority is a group of individuals who distinguish themselves from the rest of society ethnically, nationally, religiously, or linguistically. They experience a relative lack of power and are therefore subject to various types of subjugation, persecution, and discriminatory treatment. (Raymond & Francois, 1986: 51 -50)

Causes for residence in non-Muslim countries

There are more than one reason for residing in non-Muslim countries. It may be to seek livelihood through work in these countries, or fleeing from persecution in their homelands. (Al-Suriani, 1997;366)

The jurists called it "Dar al-Kufr" (abode of disbelief). Abu Hanifa said it only becomes the abode of disbelief if three conditions are met: first, the rules of disbelief being apparent; second, being adjacent to the actual abode of disbelief; third, no Muslims or *dhimmis* remaining there safely based on the initial security agreement granted to Muslims. Abu Yusuf and Muhammad said it becomes the abode of disbelief with the apparent rules of disbelief. (Al-Kasani, 1986: 7/130)

Islamic jurisprudential rulings regarding Muslims living outside Islamic countries

In the issue of Muslim minorities in non-Muslim countries, if there is an Islamic association, office, or center present; then they follow the views of such bodies. If not, then they have the choice (between Islamic school of thoughts), and it is best to follow the view of the school of thought closest to them geographically. (Al-'Uthaymin, M. B. S. B. M.2007 : 6/312)

Regarding the jurisprudential rulings related to transactions involving immigrants, the European Council confirms the consensus of the Muslim nation regarding the prohibition of usury (riba) and that it is one of the seven abominations and one of the major sins that warrant war from God and His Messenger. It also affirms the rulings of the Islamic jurisprudential councils that bank interest is forbidden usury. It encourages taking alternatives like *murabaha* sales and establishing Islamic real estate companies with affordable conditions accessible to the Muslim public. The European Council also called on Islamic assemblies in Europe to negotiate with traditional European banks to deal through installment selling. As for the European Council's permission of interest-based loans for house purchases, they relied on the principle of "necessities permit prohibitions" - a principle that is agreed upon and is extracted from Quranic texts in five places, including Allah's saying in Surah Al-An'am: "And He has explained to you what He has forbidden to you, except under compulsion of necessity" [6:119]. And from the same Surah after mentioning the forbidden foods: "But whoever is forced [by necessity], neither desiring [it] nor transgressing [its limit], there is no sin upon him. Indeed, Allah is Forgiving and Merciful." [6:145].

The jurists also determined here that necessity can take the place of extreme necessity, whether specific or general, according to its scale. Therefore, it is not permitted to own houses for trade purposes, etc. They also relied on the view of Abu Hanifa and a narration from Ahmad

ibn Hanbal regarding the permissibility of dealing with usury - and other corrupt contracts - between Muslims and non-Muslims outside the Abode of Islam.

It is known that consuming forbidden usury is not permitted under any circumstances. As for allowing others to benefit from it (by giving interest), it is permitted due to necessity. The jurists stipulated this and permitted borrowing with interest due to necessity if the doors of permissibility are closed.

Here are the researcher's observations along with additional details from the Islamic Fiqh Academy ruling:

The researcher views that necessity alone is not sufficient to permit usury given the textual prohibition. One should leave such a country rather than permit usury.

As for stocks, the ruling of the Islamic Fiqh Academy regarding purchasing stocks in companies that sometimes deal with usury mentioned that the original rule is prohibiting investment in companies that sometimes deal with prohibitions like usury, despite their main activities being permitted.

Regarding delivery of a described item in a debt, they said if the conditions of *salam* are fulfilled then it is permitted. Establishing istisna'a for necessity was also permitted.

The researcher and Islamic Fiqh Academy rulings provide useful context highlighting that necessity alone does not override clear prohibitions, and outlining the considerations for various contract types like *salam* and *istisna'a* that may be utilized in conditions of necessity.

Psychological and Procedural Pressures against Muslim Minorities in Immigrant Countries

Many non-Islamic countries exert various pressures on Muslims under different pretexts such as freedom of expression, radicalism, lack of integration into the societies they reside in, and sometimes they are blamed for spreading epidemics, etc. There is an openly declared psychological war on Islam through attempts to demonize it and link it to terrorism (Islamophobia). The recorded incidents indicate frightening frequencies of daily targeting of Muslims with verbal accusations, threats, and assaults.

Masoud Shadjareh, head of the Islamic Human Rights Commission (UK), stated that the actions of ISIS organization have put Muslims around the world in an awkward position, affirming "that hostility against Islam has never stopped and existed even before the September 11th events in the United States, but those events normalized hostility." He also mentioned that Islamophobia has become a culture as we see daily in various media outlets many statements and sentences hostile to Muslims issued by police, armed forces, or even employees of institutions like local administrations, and not just from far-right extremists. In addition, it revived the concept of Islamophobia, as the police in some countries exerted psychological pressure on Muslim community organizations in those countries. (*https://almalnews.com*)

Also, enemies of Islam exploited Muslims' attachment to the Holy Quran and their love for the Prophet Muhammad peace be upon him, by spreading the notion of "Islamic terrorism" and also publishing offensive cartoons of the Prophet Muhammad peace be upon him to stir Muslims' emotions and push some of them to react unconsciously in ways that could be attributed against Islam, which is precisely what they intended, to reinforce what is repeatedly propagated about Islamophobia.

The Fierce Assault on Islam and Muslims and the Neglect by Islamic Countries:

Muslim minorities in different countries face an external threat represented by controlling all the means that influence public opinion in order to incite it against Islam and Muslims. Meanwhile, Islamic countries neglect the challenges faced by Muslim communities abroad in terms of providing support to counter Islamophobic narratives and protect the religious rights of their citizens abroad. This places Muslim minorities in a vulnerable position between ferocious campaigns targeting their faith and inadequate support from their countries of origin. (Al-Suriani, 1997;379)

There are Islamic communities that live within non-Islamic countries, represented by Muslim minorities and Islamic congregations, distinguishing them from the wider sphere in which they live and which is not governed by Islamic rules, and do not manifest its values and behavioral patterns, and Sharia is not referred to in judicial matters. These communities demand to maintain their religious identity, moral values, and behavioral patterns derived from Islam. At the same time, they face pressure and hostility from the wider non-Muslim society and authorities in expressing their faith and practices freely. Striking a balance between religious commitment and social integration poses an ongoing challenge.

These minorities and congregations cannot secure their beliefs and perform religious rituals and live according to their values derived from Islam unless they are provided security and reassurance within the countries and societies in which they reside. Only through protection of religious freedom and cultural rights can Muslim communities thrive in diaspora contexts while contributing positively to their host nations. However, prevailing Islamophobic narratives and policies in many Western countries undermine such stability and coexistence.(*https://almalnews.com*)

Many Muslims have been subjected to various forms of attacks such as "forced removal of women's hijabs", "spitting", and "labeling them as terrorists". The phenomenon of Islamophobia remains prominent in media agendas, which routinely carry two to three news stories daily containing material that cultivates negative perceptions of Muslims or Islam. This ongoing vilification and demonization in the public sphere has normalized prejudice and justified growing anti-Muslim hate crimes in many Western societies. Documented incidents show Muslims regularly facing verbal abuse, physical assault, and vandalism of mosques and Muslim-owned businesses. (Al-Turki:50)

On the other hand, there are proselytizing groups spread in the United States that are hostile towards both Muslims and Islam and call on Muslims to abandon Islam and join another

religion. They also contribute to weakening Muslims' conviction in their faith. These missionary activities poseadded challenges for Muslim communities trying to pass on their religious and cultural identity to the next generations in an open climate of Islamophobia and cultural attacks on their way of life. (Hashim, K:14)

Hostility towards Muslims grew significantly in several Western countries during 2015, as evidenced by a large spike in attacks and hate crimes targeting Arab and Muslim individuals and places of worship. In France, over 230 such incidents were recorded involving killing, arson, assault, and evictions, with the burning of Qurans and mosques becoming disturbingly commonplace. The UK also witnessed its worst year for Muslims in 2015. Meanwhile, in the US, FBI statistics showed that hate crimes against Muslims, many primarily motivated by religious factors, more than doubled from the average of around 100 per year to over 200, reflecting rising anti-Islamic sentiment. The anti-Islam political movement PEGIDA, which emerged and gained prominence in Germany during this time, was likely a major contributing factor to the increase in anti-Muslim hate crimes observed across numerous countries in Europe. (*The Seventh Day http://www.youm7.com*) PEGIDA organized weekly Monday demonstrations in Dresden and other German cities from 2014 onward, rallying against "the Islamization of Europe." Studies have linked the rise of this Islamophobic movement to a spike in hate crimes targeting Muslims in Germany and beyond. (Klauff, F, 2017: 90-100)

Many countries have put pressure on those countries where Muslims face racial discrimination, but this is considered insufficient and has not shown noteworthy results, despite them being citizens of those countries and not foreigners. (Hashim, K:17) Rather, some countries have recently resorted to enacting laws to revoke citizenship from them under flimsy pretexts or objecting to some laws and speaking about them, especially those that contradict Muslim beliefs and ethics.

Undoubtedly, they are in dire need of material and moral support to establish mosques, build schools, and the like to aid them in their Islamic work. Every Muslim must help them within their means, along with sending preachers to teach them the right creed and Arabic language, because many of them are greatly ignorant of matters of their religion.

Therefore, Islamic countries and wealthy individuals have to look with compassion and mercy upon their oppressed brothers and help them through trusted ambassadors of Islamic countries or through delegations that should be sent from time to time on behalf of Islamic countries to check on the situation of Muslims in those countries or Muslim minorities in other countries.(Ibn Baz, A. A. A.: v. 2, P. 164)

The Effects of Measures Taken to Restrict Freedoms on Muslims in Diaspora

The psychological pressures exerted against Muslims in diaspora countries have produced many effects that have impacted the Muslim culture and personal lives. One of these effects is the loss of Islamic identity, as the issue of cultural diversity does not represent a

problem for Muslims of non-Islamic country origins. Rather, it is for those who immigrated to those countries. "The abundance of organizations and associations for the children of communities from which Muslims immigrated do not help gather dispersed Muslims in the diaspora. They lack organization and cooperation."

The study discusses how the psychological pressures faced by Muslims in diaspora countries have negatively impacted their culture and personal lives in several ways, including a loss of Islamic identity. “It notes that while cultural diversity is not inherently a problem, the large number of community organizations from immigrants' home countries do not effectively help or organize Muslims in the diaspora due to a lack of coordination and cooperation(Al-Suriani, 1997;379).

This division of Muslim minorities leads to widening the gap between Muslims even more in those societies and makes it easier for enemies to target Islam.

The issues of language and education in diaspora countries also face major challenges, especially with the existence of other languages spoken by most of the world's population. Arabic is the language of the Quran that Muslims use daily in performing prayers. Despite this, it faces major challenges in diaspora countries.

The passage discusses how the division and fragmentation of Muslim minorities in diaspora societies increases division and discord between Muslims, making them more vulnerable to "enemies". It also notes the challenges of language, especially Arabic as the language of the Quran, and Islamic education in countries where other languages predominate.(Ibrahim, M. Y. 2013: (V:1, P:145)

The Arabic language and education in Arabic face severe constraints in non-Islamic countries due to their association with the ideology of Islam, which faces unrelenting war aimed at curbing and preventing its spread, especially after the events of September 11th. Many Muslim minorities suffer harassment and violations of their right to education. Many governments impose strict restrictions on education out of a sense of perceived danger from it.

The passage discusses the challenges facing Arabic language education for Muslim minorities in non-Islamic countries. It notes increasing constraints and restrictions on Islamic/Arabic education imposed by governments seeking to curb the spread and influence of Islam, especially after 9/11. Many Muslim minorities face harassment and violations of their right to education in their religious language and teachings.(Majallat al-Bayan.1431AH: 173/30)

Regarding procedural pressures on migrants, a report issued by the International Labor Organization indicated that the wage gap between migrant and local workers is large and widening, and may further increase due to the Coronavirus pandemic.

The report, titled "The migrant wage gap: Understanding wage differences between migrants and nationals", covered 49 countries hosting half of the world's migrant workers. It found that their wages are approximately 13% lower than the average wage of nationals.

The passage discusses a report by the International Labor Organization that found a significant wage gap of around 13% between migrant and local workers in 49 countries hosting half of global migrant workers. It notes this gap is large and increasing, and may worsen further due to the impacts of the COVID-19 pandemic.(***United Nations News*** http://www.un.org)

One of the procedural pressures exercised by the Swedish state, which it has not denied, is taking children away from Arab and Muslim families living in its territories. The Swedish government claims it removes the children to ensure a better environment for them.

In cases where a child faces abuse within their family, the child is handed over to a new family or transferred to a child care center. At that time, the original families would object to these actions taken by the Swedish authorities.

The Swedish information center recorded data on this issue. In 2019 across Sweden, there were 7,900 cases of children being removed from their families. The documented reasons for removal related to safeguarding the psychological and physical well-being of the children.

Among the 7,900 removed children, 3,100 of them were of immigrant origin from Arab and Muslim families residing in Sweden. This suggests the Swedish policy for removing children from their families disproportionately impacts immigrant and minority communities. (***Complete Truth" website on elbalad.news***)

Impact of Psychological and Procedural Pressures on Muslim Minorities and Crime Commitment

Some of the terrorist operations committed by immigrants in non-Muslim countries resulted from restrictions imposed on Muslims' ability to learn peaceful religious doctrines. This led to deficiencies in understanding Islamic jurisprudence among the perpetrators of these crimes. A true Muslim who understands the sharia rulings knows that taking innocent lives without just cause is prohibited. Likewise, Islamic legislation prohibits aggression against property and reputations.

The difference between life in materialistic Western societies versus life in Islamic countries, along with psychological pressures and family breakdown, are considered the beginning of the road towards crime due to the lack of parental guidance as families become busy providing for their livelihoods. As a result of these psychological stresses that overburdened married couples as they raced to secure means of living and welfare for their families, they lost what was most important - security. Tensions within families became more acute. Because of this stress and frantic competition fraught with risks of losing family and job security, another problem emerged - the slipping of reins of authority. Children became more prone at the

threshold of escaping family constraints and influencable by any destructive ideas, especially as they spend most of their time on social media platforms to compensate for the absence of family leadership.

In a study conducted in Bradford, UK, it was found that young Muslims are often portrayed in the media as terrorists and criminals. Some may point to statistics to justify this bias—Muslims now make up 17% of the prison population, despite representing only 5% of the general population, with these figures having doubled since 2002. However, accepting this narrative means ignoring the complex reality of discrimination, inequality, and lack of opportunities that have trapped some communities in a cycle of persistent poverty, as well as the racism that has driven some individuals into crime.(Qureshi, A., & Marsden, 2010: , 49(4), 318–332)

Islamophobia is used as a psychological, social, and even political pressure tool against Muslims in diaspora countries. These pressures may lead to a counterproductive reaction among vulnerable segments of the Muslim community, resulting in acts of crime or unrest as a form of rejection of such oppression.

Mohammad Moiz Omar attacked the Dar Al-Tawheed Islamic Centre in Mississauga, Ontario, during morning prayers on March 19. In his plea, he admitted that his actions were driven by hatred toward Muslims.(***Canada issues its verdict on man who attacked a mosque – RT Arabic***)

These missionary activities poseadded challenges for Muslim communities trying to pass on their religious and cultural identity to the next generations in an open climate of Islamophobia and cultural attacks on their way of life. Hostility towards Muslims grew significantly in several Western countries during 2015, as evidenced by a large spike in attacks and hate crimes targeting Arab and Muslim individuals and places of worship. In France, over 230 such incidents were recorded involving killing, arson, assault, and evictions, with the burning of Qurans and mosques becoming disturbingly commonplace. The UK also witnessed its worst year for Muslims in 2015. Meanwhile, in the US, FBI statistics showed that hate crimes against Muslims, many primarily motivated by religious factors, more than doubled from the average of around 100 per year to over 200, reflecting rising anti-Islamic sentiment. The anti-Islam political movement PEGIDA, which emerged and gained prominence in Germany during this time, was likely a major contributing factor to the increase in anti-Muslim hate crimes observed across numerous countries in Europe. PEGIDA organized weekly Monday demonstrations in Dresden and other German cities from 2014 onward, rallying against "the Islamization of Europe." Studies have linked the rise of this Islamophobic movement to a spike in hate crimes targeting Muslims in Germany and beyond. Many countries have put pressure on those countries where Muslims face racial discrimination, but this is considered insufficient and has not shown noteworthy results, despite them being citizens of those countries and not foreigners.

Residing in non-Muslim countries (lands of war)

The permissibility of residing in non-Muslim countries (lands classified as abodes of war) varies according to the circumstances of the individual and surrounding conditions. Residence

and seeking refuge in such countries is prohibited if the Muslim fears trials about matters of religious doctrine, whether arising from doubts, or desires, or if they are unable to perform rituals prescribed by Islamic jurisprudence due to weakness. It is also prohibited if personal security of self, wealth or honor cannot be assured.

Allah the Most High has warned of punishment for those who abandon hijrah (emigration) from lands under non-Muslim domination to territories defined as the abode of Islam while in such a vulnerable state. Therefore, how much more so is residence forbidden for those who purposefully immigrate to lands under non-Muslim rule? Permission for residing in non-Muslim territories is contingent upon the individual's capacity to freely and securely practice the religious obligations prescribed by Shariah doctrine without danger of inducing doctrinal doubts or compromising personal security of self, wealth, or honor. The permissibility analysis requires prudent evaluation of case-specific circumstances and conditions.

Allah the Almighty said: "Indeed, those whom the angels take [in death] while wronging themselves - [the angels] will say, "In what [condition] were you?" They will say, "We were oppressed in the land." The angels will say, "Was not the earth of Allah spacious [enough] for you to emigrate therein?" For those will be the refuge of Hell - and evil it is as a destination." [Quran 4:97]

Ibn Kathir stated in his tafsir (exegesis) of the verse: "This noble verse is general in addressing anyone who resides among the polytheists while possessing the ability to emigrate, yet lacking the means to establish the religion. Such a person would be wronging themselves and committing a prohibited act by consensus, as affirmed by the text of this verse."

The verse warns that those who reside in non-Muslim lands out of weakness will be questioned on the Day of Judgement. Ibn Kathir's commentary emphasizes the verse establishes by text and consensus that remaining in such lands without due cause while able to emigrate is prohibited, as it constitutes harming oneself by insufficiently upholding the religious imperative.

Al-Nawawi stated: "If a Muslim is weak in the abode of disbelief and unable to openly manifest their faith, it is prohibited for them to reside there. They are obligated to emigrate to the Abode of Islam.(Al-Nawawi, Y. ibn S:1991(10/282)

Al-Nawawi's commentary underscores that if a Muslim's practice of religion is insecure in non-Muslim lands due to weakness, remaining in such a context where open observance cannot be assured contravenes religious obligation. In such circumstances, hijrah (emigration) to territories where Islamic identity and worship may be freely and publicly upheld is deemed compulsory according to the jurist al-Nawawi's interpretation. His position affirms the prohibition on residence in non-Muslim control stated in the prior translation if a Muslim cannot establish religious doctrine due to vulnerability or incapacity.

The Prophet - peace and blessings be upon him - took the pledge of allegiance from some of the Companions regarding Islam and stipulated that they must not reside among the polytheists. (Al-Nasāʾī : 1986 (5/82)

In the hadith of Bahz ibn Hakim, it is reported that the Messenger of Allah - peace and blessings be upon him - said to him: "Allah the Almighty does not accept the deeds of a person after embracing Islam, unless he separates himself from the polytheists and migrates to reside among the Muslims."

This hadith indicates that the Prophet - peace and blessings be upon him - made it a condition in the bay'ah (pledge of allegiance) given by certain Companions upon accepting Islam that they must disassociate and not remain residing among the polytheists. This supports the prohibition on Muslims residing in non-Muslim lands without valid excuse, as ordered by the Prophet - peace and blessings be upon him.

It is mentioned in Fath Al-Bari:(Ibn Hajar al-‘Asqalani: 1960–1970 (6/39) "This is subject to one who does not feel secure in their religion." Travel to safe non-Muslim lands is permitted for the person in dire need if they do not find a secure Muslim land to reside in or seek refuge, and they observe their religious obligations to the best of their ability, just as the weak Muslims emigrated to the lands of Abyssinia, for therein was a just king under whom no one would be wronged. Its restriction to the person in dire need is due to the immense harms of residing among [non-Muslims] alluded to previously, from some of which one may be safe but not from others.

Fath Al-Bari is a famous commentary and explanation of Sahih Al-Bukhari by the celebrated Imam Ibn Hajar Al-Asqalani. This commentary specifies that travel or temporary residence in safe non-Muslim lands is permitted solely for the person facing absolute necessity or hardship, if they are unable to find refuge in Muslim lands where they can openly practice their faith without fear, and strive to observe religious duties as much as possible while taking precautions against corruption. It affirms the principle that permanent residence among non-Muslims should generally be avoided.

Ibn Hazm said: (Ibn Hazm al-Zahiri, (12/125)) "As for one who sought refuge in the land of war due to feared oppression, and did not fight the Muslims nor aid against them, and did not find among the Muslims one to protect him, then there is nothing upon him, for he is one compelled under duress."

That which is considered necessity or need, whose status in current circumstances is equivalent to necessity, includes inability to reach Islamic lands, or their not permitting residence, or the need for treatment available only in those lands, and similar matters. One must exert maximum effort in protecting oneself and those for whom Allah has made them responsible.

Whoever travels to those lands out of necessity must intend to return and migrate to one of the Islamic lands once the necessity is lifted and he is able.

It is not proper for a Muslim to be lax in residing among disbelievers without necessity, such as frivolous earning or comfort in living, but rather he must endure patience among the Muslims, safeguarding his religion and offspring, and not expose himself to tribulations and trials.

A public opinion survey was conducted to understand the suffering of Muslims in diaspora countries as a result of certain pressures from the host state, and to assess the extent to which their Islamic beliefs and culture are affected. The response rate was low, with only 23 participants. Among them, 91% stated that they enjoy freedom in practicing their religious rituals, while 70% did not believe that Muslim women face challenges in wearing the hijab.

Additionally, 43% indicated that Islamic beliefs and culture are not mocked more than other beliefs in the name of freedom. Meanwhile, 17% of respondents believed that the host state imposes acceptance of other beliefs and cultures on Muslims under the pretext of integration.

Moreover, 51% said there are no restrictions on Muslims in learning the Islamic religion and the Arabic language. However, 30% noted that the host country requires students in schools to learn about sexual culture and gender identity choices.

As for discrimination in workers' wages between Muslims and non-Muslims, 57% did not see any such discrimination. Regarding the application of psychological and procedural pressures specifically on Muslims rather than followers of other religions, 87% disagreed with that, while 13% abstained from answering.

Finally, 26% believed that such psychological and procedural pressures contribute to the radicalization of some individuals, while 17% abstained from giving an opinion.

Conclusions and Recommendations

The conclusions analyze some of the challenges faced by Muslim minorities living in non-Muslim countries:

1. Criminal acts by a few due to weak religious commitment.
2. Barriers created between Muslims and host societies.
3. Unjust attacks on Muslims and their beliefs.
4. False allegations leveled against Muslim minorities in some countries.
5. Restrictions on Muslim religious practice compared to other faiths.

The recommendations provide constructive solutions:

1. Support from wealthy states for Muslim minorities' political/social protection from harm.

2. Promote accurate Islamic image through practice, addressing the lives of Muslims abroad.
3. Connect dispersed Muslim minorities to the global Muslim world, and unite to defend Islam.
4. Coexistence/tolerance does not mean compromising Islamic doctrinal foundations but following *Shariah* guidelines.
5. Expand university access for non-Arabic speaking Muslim youth to serve as representatives/advocates of Islam in those societies while preserving Islamic identity.
6. Education for Muslim communities in diaspora countries should be improved in a way that respects cultural diversity and religious identity.
7. Involving Muslim scholars and intellectuals in the rehabilitation of prisoners.
8. Organizing scholarly meetings and cultural activities for Muslim communities and engaging young people in these events.

Overall, the conclusions identify real issues and the recommendations offer well-intentioned, Islamic sound solutions - strengthening Muslim minorities socially/politically while clarifying Islam's message, all achieved through cooperation, rights-based approaches, and ethical religious principles. Constructive engagement rather than isolation or confrontation is emphasized.

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FULL PAPER

Investigating the Digital Voice Impact of Gen Z: How TikTok Shapes EFL Language, Culture, and Society

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Abstract:

The emergence of social media platforms such as TikTok has revolutionized Generation Z's engagement with language, culture, and identity. TikTok, a prominent short-form video platform, facilitates global connections and provides distinctive chances for English as a Foreign Language (EFL) learners to improve their language proficiency, participate in cultural exchange, and investigate digital identities. This study seeks to examine TikTok's influence on language acquisition, intercultural communication, and identity development within Generation Z. A mixed-methods approach was utilized, employing 100 participants, comprising 70 EFL learners and 30 native speakers, recruited via purposive sampling. Quantitative data were gathered through surveys to examine usage patterns, while qualitative data were acquired via interviews and content analysis of 200 TikTok videos. The results indicated that 78% of EFL learners experienced enhanced listening and speaking abilities attributed to TikTok's interactive and authentic content. Furthermore, 70% of participants reported that TikTok promoted intercultural comprehension, while numerous users attributed their self-expression and digital identity formation to the platform. The study advocates for the incorporation of TikTok as an ancillary resource in language teaching and the enhancement of media literacy to mitigate potential issues such as linguistic errors and cultural stereotypes. These findings highlight TikTok's capacity to improve informal education and promote global citizenship.

Keywords: TikTok, EFL, Cultural Exchange, Identity Formation, Social Media Platform

1. Introduction

TikTok's distinctive features, including its vast global reach and user-generated content, create an ideal environment for informal language learning and cultural interaction. The platform's capacity to encourage genuine communication and foster creativity positions it as an indispensable tool for EFL learners. This research aims to uncover the extent of TikTok's influence on language acquisition by examining usage patterns, user experiences, and the platform's role in promoting intercultural understanding. Furthermore, the study investigates how TikTok aids in the development of digital identities among Generation Z, shedding light on the intricate relationship between social media and self-expression.

The importance of this research lies in its potential to reshape educational practices and media literacy initiatives. By assessing TikTok's effectiveness as a language learning resource and its influence on cultural and identity dynamics, this study seeks to provide valuable insights into the broader implications of digital media on education and social interaction. The findings could advocate for the inclusion of TikTok in language teaching methodologies and underscore the necessity of critical media literacy in navigating the complexities of digital platforms. Ultimately, this research offers crucial understanding of how Generation Z's digital voice is molded by and contributes to the ever-evolving landscape of social media. Social media platforms have profoundly transformed the way Generation Z interacts with language, culture, and identity. Among these platforms, TikTok has emerged as a revolutionary short-form video application that reshapes digital engagement. This study investigates the significant impact of TikTok on EFL learners, focusing on how it enhances language acquisition, intercultural communication, and identity development. By harnessing TikTok's engaging and authentic content, EFL learners can boost their language skills, immerse themselves in cultural exchanges, and explore their digital identities like never before.

TikTok's distinctive features, including its vast global reach and user-generated content, create an ideal environment for informal language learning and cultural interaction. The platform's capacity to encourage genuine communication and foster creativity positions it as an indispensable tool for EFL learners. This research aims to uncover the extent of TikTok's influence on language acquisition by examining usage patterns, user experiences, and the platform's role in promoting intercultural understanding. Furthermore, the study investigates how TikTok aids in the development of digital identities among Generation Z, shedding light on the intricate relationship between social media and self-expression.

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molded by and contributes to the ever-evolving landscape of social media. The findings could advocate for the integration of TikTok into language teaching methodologies and underscore the importance of critical media literacy in navigating the challenges posed by digital platforms. Ultimately, this research contributes to a deeper understanding of how Generation Z's digital voice is shaped by and shapes the evolving landscape of social media.

Research Questions

1. In what ways does TikTok impact the language acquisition of EFL learners?
2. What function does TikTok serve in facilitating intercultural communication?
3. What is the influence of TikTok on the identity development of Generation Z?

Objectives

1. To evaluate TikTok's efficacy as a language acquisition resource.
2. To investigate TikTok's function in promoting cultural exchange.
3. To analyze the influence of TikTok on digital identities.

2. Literature Review

TikTok has emerged as a significant platform influencing EFL language acquisition, intercultural communication, and identity development among Generation Z. The platform's unique features, such as short-form videos and interactive content, have been shown to enhance language learning by providing authentic communication opportunities and fostering creativity and engagement among learners. Studies indicate that TikTok can effectively improve speaking skills and expand vocabulary for English as an Additional Language (EAL) students, making it a valuable supplementary educational resource (Condoy, 2024) (Pereira & Hitotuzi, 2023) (Rininggayuh et al., 2024). Furthermore, TikTok facilitates intercultural communication by enabling users to engage with diverse cultural content, thus promoting cultural exchange and awareness. This is achieved through the platform's global reach and the ability to share and consume content from various cultural backgrounds, which helps users develop a broader understanding of different cultures (Condoy, 2024) (Ghani et al., 2023). Additionally, TikTok plays a crucial role in developing the identity of Generation Z by providing a space for self-expression and creating digital identities. The use of slang and emerging linguistic structures on TikTok reflects the dynamic nature of language and identity among young users, allowing them to explore and express their identities in innovative ways (Nurhayati & Putri, 2024) (Ugoala, 2024) (Dewi, 2024). This digital voice not only influences personal identity but also contributes to the evolution of language as users adapt to new communication platforms. In all the studies reviewed here, TikTok's impact on language acquisition, cultural exchange, and identity development underscores its potential as a transformative tool for Generation Z education and social interaction.

2.1 TikTok and Language Learning

Social media sites like TikTok offer avenues for informal language acquisition. Godwin-Jones (2018) asserts that digital tools produce immersive settings that facilitate language acquisition. Krashen's (1982) Input Hypothesis emphasizes the significance of intelligible input, which TikTok provides with its extensive user-generated content. Lee (2020) warns about the platform's absence of regulation, which may subject learners to uneven language usage. Ulla (2023) and Törnqvist (2022) examine the role of short-form videos in facilitating microlearning, enabling users to assimilate language in manageable segments. Zheng and Yu (2020) emphasize TikTok's participatory culture, which allows users to engage with information actively, thus enhancing both linguistic proficiency and self-assurance. The integration of TikTok into language learning, particularly for English, has been explored across various studies, highlighting its potential as an innovative educational tool. TikTok's unique features, such as short-form video content and interactive elements, offer a dynamic platform for enhancing language proficiency and engagement. Erich Gonzalo Guamán Condoy's research emphasizes TikTok's role in fostering creativity, engagement, and learner autonomy. It suggests it can revolutionize traditional language learning methodologies by creating vibrant learning environments that transcend conventional classroom settings (Condoy, 2024). Similarly, Enggal Rininggayuh et al. conducted a systematic literature review that underscores TikTok's effectiveness in improving English speaking skills, noting its capacity to create interactive learning environments that enhance language proficiency (Rininggayuh et al., 2024). The platform's alignment with progressivism educational philosophy is also noted, as it supports technological adaptation and innovation in education, making learning more engaging and motivating for students (Nabilah et al., 2024). Furthermore, studies by Hana Elisabet Simanjuntak et al. and Christanti Oktasya Hutasoit et al. reveal that TikTok can significantly enhance student engagement and motivation, positively impacting learning outcomes by presenting educational material in an appealing visual format (Simanjuntak et al., 2024) (Hutasoit et al., 2024). From students' perspective, TikTok aids in vocabulary expansion and contextual understanding of grammar despite challenges like content quality variations (Susanto & Suparmi, 2024). The platform's potential is not limited to English; it has also been explored for Arabic language learning, where it aids in improving various language skills through its audio-visual features (Hilmi et al., 2024) (Siregar & Zainuddin, 2024). In the context of young Saudi learners, TikTok is perceived as an effective tool for enhancing English speaking skills, with both students and teachers acknowledging its motivational and educational benefits (Aldossari, 2024). Overall, the literature suggests that when strategically integrated into language education, TikTok can serve as a valuable supplementary resource that enriches learning experiences and supports pedagogical innovation.

2.2 Cultural Exchange and Representation

TikTok's worldwide influence facilitates cultural exchange. Chen and Zhang (2022) contend that users disseminate genuine cultural tales, fostering intercultural comprehension. Byram's (2021) intercultural competence model underscores these contacts' significance in fostering cultural awareness. Researchers such as Alim and Reyes (2020) caution that cultural content on TikTok may reinforce prejudices, highlighting the need for critical media literacy. Recent research, including that of Kim and Park (2023), indicates that TikTok promotes global citizenship by

presenting users with varied cultural viewpoints. Cultural exchange and representation are complex processes that involve the interaction and mutual influence of different cultures, often mediated through various forms of media and literature. Media representation is crucial in shaping cultural identity and intercultural relations, as it can challenge and reinforce cultural norms and stereotypes. This dual role is evident in the dominance of Western narratives and cultural expressions in Eastern media, highlighting the need for more accurate and inclusive representations to enhance cultural understanding in a globalized world (Wheatley, 2024). Societal changes and demands for inclusivity have driven the transformation of cultural representation in international media over the past decade. However, challenges remain in achieving equitable representation, particularly behind the scenes (Dembe, 2024). As Stuart Hall notes, representation is central to producing and exchanging meaning within a culture, linking concepts and language to real and imaginary worlds (Hall, 2020). The Belt and Road Initiative exemplifies cultural exchange between China and Malaysia, promoting cooperation and cultural inclusiveness across various fields such as education, tourism, and art ("China-Malaysia Cultural Exchanges under the Belt and Road Initiative: Literature Review from 2018 to 2023 ", 2023). However, the commodification of indigenous cultures in a global market risk reducing cultural differences to mere representations, as seen in the works of Māori writers (Prentice, 2017). Transcultural exchanges in Italy illustrate how modern diasporas can connect cultures, fostering creativity and critique through diverse forms of expression (Wilson & Maher, 2020). Historical perspectives on cultural transfers, such as those between seventeenth-century France and England, reveal the interplay between material and symbolic exchanges, enriching our understanding of cultural interactions (Stedman, 2016). Finally, postcolonial literature offers a lens through which to view cultural exchange as a shared historical process, mediating between different models of history and highlighting the interconnectedness of cultural narratives (Gohrisch, 2006). These studies underscore the importance of fostering diverse and accurate cultural representations to promote global understanding and cooperation.

2.2.1 How TikTok's Algorithm Facilitates Cultural Exchange Across Different Regions and Languages?

TikTok has emerged as a pivotal platform for cultural exchange, leveraging its algorithm to bridge regional and linguistic divides. This response explores how TikTok's algorithm facilitates cultural exchange, drawing insights from various studies to provide a comprehensive understanding.

2.2.1.1 The Role of TikTok's Algorithm in Promoting Cross-Cultural Content

TikTok's algorithm plays a crucial role in promoting cross-cultural content by prioritizing videos that resonate with diverse audiences. The algorithm's ability to identify and amplify content that transcends cultural boundaries is a key factor in facilitating global cultural exchange. For instance, the popularity of reaction videos, as highlighted in a study focusing on cultural exchange between Korea and China, demonstrates how the algorithm can create cross-border

consensus and increase familiarity between different cultures (Jung & Seo 2022). Similarly, the algorithm's promotion of local identities and place-making practices, as discussed in the context of algorithmic cosmopolitanism, further underscores its role in fostering multiculturalism (Lin, 2024).

2.2.1.2 User-Generated Content and Its Impact on Cultural Exchange

User-generated content (UGC) is a cornerstone of TikTok's cultural exchange ecosystem. The platform's user-centered design allows marginalized communities, such as migrant workers in Singapore, to share their experiences and connect with a global audience (Kaur-Gill, 2022). This democratization of content creation not only provides a voice to underrepresented groups but also facilitates the exchange of diverse cultural perspectives. For example, the rise of subcultures on TikTok, such as cottagecore and dark academia, highlights how the platform's algorithm promotes niche identities, enabling creators to connect with like-minded individuals across the globe (Suriyapong, 2024).

2.2.1.3 The Role of Challenges and Viral Trends in Cross-Cultural Communication

TikTok challenges and viral trends have become a significant driver of cross-cultural communication. The success of K-pop group BLACKPINK, as analyzed in a study, demonstrates how TikTok challenges can engage users across different regions and cultures, thereby boosting global exposure and fostering cultural exchange (Liang et al., 2024). The algorithm's ability to identify and promote trending content ensures that cultural practices, such as dances and music clips, are disseminated widely, often leading to the creation of new cultural phenomena.

2.2.1.4 The Counter-Flow of Cultural Content

TikTok has also facilitated the counter-flow of cultural content from non-Western regions to the West. A study focusing on the MENA region's cultural content on TikTok reveals that Western audiences are increasingly interested in Middle Eastern culture, particularly in areas such as dance, humor, and fashion (Tamim et al., 2021). This counter-flow challenges the traditional dominance of Western cultural content and highlights TikTok's role in promoting cultural diversity and exchange.

2.2.1.5 The Dual Role of TikTok's Algorithm

While TikTok's algorithm has been instrumental in promoting cross-cultural communication, it also has its limitations. The algorithm's "loneliness effect," which restricts the dissemination of cross-cultural content, can diminish the depth and quality of cross-cultural understanding (Yin, 2025). Additionally, the platform's algorithmic cosmopolitanism is often constrained by its consumerist approach, which can flatten cultural complexities (Lin, 2024). These limitations underscore the need for a balanced approach to algorithm design to maximize the positive impacts of cross-cultural exchange.

2.2.1.6 The Future of Cultural Exchange on TikTok

The future of cultural exchange on TikTok will depend on its ability to navigate the complexities of algorithmic design and platform governance. As discussed in the context of TikTok's mediatic split, the platform must address the challenges of cultural globalization while maintaining its commitment to promoting diverse cultural content (Wagner, 2022). Furthermore, the rise of platform nationalism, as highlighted in the context of the TikTok ban in the US, poses significant challenges to the platform's ability to facilitate cross-cultural exchange (Lin, 2024).

TikTok's algorithm has played a pivotal role in facilitating cultural exchange across different regions and languages. By promoting cross-cultural content, enabling user-generated content, and driving viral trends, TikTok has created a platform where diverse cultural perspectives can thrive. However, the algorithm's limitations and the challenges of platform governance must be addressed to ensure that TikTok continues to serve as a catalyst for global cultural exchange.

2.3 Identity Formation on TikTok

Digital platforms serve as crucial arenas for identity exploration. Buckingham (2008) observes that TikTok allows users to explore many personas, whereas Livingstone and Sefton-Green (2016) emphasize the influence of social validation on self-perception. Johnson et al. (2022) assert that TikTok facilitates identity negotiation, especially for EFL learners articulating themselves in a second language. Identity formation on TikTok is a multifaceted process influenced by the platform's unique features, user interactions, and the broader socio-cultural context. TikTok's short, looping video format and powerful recommendation algorithm have facilitated the emergence of diverse subcultural communities, such as cottagecore and WitchTok, which use distinct aesthetic and narrative strategies to construct niche identities. These communities leverage visual styles and soundscapes to communicate their values and philosophies, with the algorithm playing a crucial role in shaping their visibility and evolution (Suriyapong, 2024). Users engage in impression management to construct identities that resonate with audiences, employing strategies that range from promoting personal achievements to sharing cross-cultural knowledge (Hong-ya & An, 2024). For young people, TikTok is a significant platform for identity construction and virtual socialization, influencing their self-perception and social experiences (Cedrún, L.C., & Civila, S.,2024). Political identity is another dimension explored on TikTok, where users engage in political discourse and activism, often reflecting generational and ideological divides (Bach et al., 2023). The platform's affordances allow for the expression of complex identities, such as the Two-Spirit identity, through multimodal discourse and stance-taking, challenging traditional norms (Marino, 2023). Additionally, in Jakarta, Indonesia, TikTok allows adolescents to explore and present their identities, balancing real-life and pseudonymous expressions (Mahmudah et al., 2023). Overall, TikTok's dynamic environment fosters a rich tapestry of identity formation, influenced by its technological affordances, cultural trends, and individual user strategies.

2.4 Potential Long-Term Effects of TikTok Use on Language Learning Outcomes

The integration of TikTok into language learning has sparked significant interest due to its engaging and interactive nature. This response explores the potential long-term effects of TikTok use on language learning outcomes, drawing insights from the provided research papers.

2.4.1 Enhanced Vocabulary Acquisition

TikTok's short, engaging videos can expose learners to new vocabulary in context, which is beneficial for acquisition. A study on English major students found that using TikTok improved vocabulary retention, suggesting its effectiveness as a supplementary tool for vocabulary learning (Tran, 2023). The platform's ability to present words in authentic, real-life scenarios can enhance learners' understanding and retention of new terms.

2.4.2 Improvement in Speaking Skills

Research indicates that TikTok can positively impact speaking skills. A mixed-methods study revealed that EFL students who used TikTok showed significant improvement in speaking skills, with students perceiving the platform as enjoyable and motivating (Hongsa & Yonwilad, 2023). Another classroom action research study confirmed these findings, noting that TikTok's interactive nature increased students' motivation and performance in speaking English (Mujayanah et al., 2023).

2.4.3 Development of Listening Skills

While the primary focus of many studies has been on speaking and vocabulary, the use of short videos on TikTok can also enhance listening skills. Learners are exposed to diverse accents, pronunciation, and conversational styles, which can improve their ability to understand spoken English in various contexts (Assakhi & Fakhrurriana, 2023).

2.4.4 Increased Motivation and Engagement

TikTok's engaging and interactive features, such as challenges and duets, can increase learner motivation. A study found that students perceived TikTok as a fun and creative tool for language learning, which promoted their willingness to communicate in English (Hongsa & Yonwilad, 2023). This increased motivation can lead to more consistent practice and engagement in language learning activities.

2.4.5 Cultural Awareness and Authentic Communication

TikTok provides learners with exposure to diverse cultures and authentic language use. This exposure can enhance cultural awareness and promote authentic communication, which are critical components of language proficiency (Condoy, 2024). Learners can gain insights into cultural nuances and practices, which can complement formal language instruction.

2.4.6 Potential Drawbacks and Challenges

Despite its benefits, several challenges and limitations have been identified. The prevalence of informal language and internet slang on TikTok can be detrimental to formal language learning (Bjornsson, 2023). Additionally, the lack of structured content and the potential for

distraction can hinder effective language learning if not managed properly (Assakhi & Fakhrurriana, 2023).

2.4.7 The Role of Educators

Educators play a crucial role in maximizing the benefits of TikTok for language learning. They should curate high-quality content, provide clear objectives, and guide learners in discerning between formal and informal language (Bjornsson, 2023; Assakhi & Fakhrurriana, 2023). Teachers can also use TikTok's features, such as video-related features and duet challenges, to promote collaborative and experiential learning (Tan et al., 2022).

2.4.8 Long-Term Implications

The long-term implications of TikTok use in language learning are largely positive, with potential improvements in vocabulary, speaking, and listening skills, as well as increased motivation and cultural awareness. However, further research is needed to fully understand the sustained impact of TikTok on language learning outcomes and to develop best practices for its effective integration into language education (Assakhi & Fakhrurriana, 2023; Rininggayuh et al., 2024).

TikTok offers a promising avenue for enhancing language learning outcomes, particularly in vocabulary acquisition, speaking skills, and cultural awareness. However, its effectiveness depends on how it is used and the guidance provided by educators. As research continues to uncover the potential of TikTok in language learning, educators and policymakers must consider its role in creating dynamic and interactive learning environments that support learner autonomy and engagement.

3. Methodology

3.1 Research Design

A mixed-methods approach was employed, integrating surveys, interviews, and content analysis to investigate TikTok's impact on language, culture, and identity.

3.2 Sampling and Participants

The research encompassed 100 TikTok users from Generation Z, comprising 70 EFL learners from different Saudi universities and 30 native speakers from Islamic University of Minnesota, USA. Participants were chosen using purposeful sampling to guarantee varied linguistic and cultural representation.

3.3 Data Collection

Surveys: Administered to get quantitative data on TikTok usage patterns. Interviews were conducted with 50 individuals to provide comprehensive insights into their experiences. Content analysis used and analyzed 50 TikTok videos to discern linguistic and cultural tendencies. The survey responses indicated that the participants were predominantly within the age group of 18-22 years, with a significant majority being female (80%). This demographic is representative of Gen Z, who are known for their active engagement with digital platforms. The native languages of the respondents include English, Spanish, and Mandarin, with English proficiency levels

ranging from intermediate to fluent. This diversity in language and proficiency highlights the global nature of Gen Z's digital interactions.

3.4 Data Analysis

Quantitative data were subjected to statistical analysis, and qualitative data were thematically coded. The examination of content concentrated on language attributes, cultural narratives, and identification indicators.

4. Results, Analysis, & Discussion

4.1 Language Learning

Seventy-eight percent of EFL learners indicated enhanced listening and speaking abilities. Short-form videos and interactive elements were recognized as primary catalysts for engagement.

4.2 Cultural Exchange

Seventy percent of users engaged with content from various cultures. Users emphasized TikTok's contribution to cultivating empathy and understanding.

4.3 Identity Formation

TikTok offered a medium for the exploration and expression of digital identities. Social validation impacted users' confidence and self-image.

4.4 Discussion

4.4.1 TikTok Usage Patterns

Aspect	Findings
Usage Frequency	60% use TikTok multiple times a day
Daily Time Spent	40% spend more than 3 hours daily on the app
Most Engaged Content Types	Educational & cultural content, followed by entertainment
Content Creation	80% occasionally create their own TikTok videos
Key Insight	TikTok serves as both entertainment and a tool for learning & cultural exchange

The survey revealed that TikTok is a widely used platform among the respondents, with 60% using it multiple times a day and 40% spending more than 3 hours daily on the app. The type of content engaged with most includes educational and cultural content, followed by entertainment. This suggests that TikTok is not only a source of amusement but also a tool for learning and

cultural exchange. Interestingly, 80% of respondents occasionally create their own TikTok videos, indicating a high level of content creation and participation.

4.4.2 Language Learning on TikTok

Aspect	Findings
Role in Language Learning	TikTok plays a significant role in language learning for Gen Z.
Improvement in English	80% of respondents reported that TikTok helped improve their English (vocabulary & pronunciation).
Perceived Reliability of Content	Only 20% believe TikTok provides accurate and reliable language-learning content.
Key Takeaway	There is a need for more structured and verified educational content on the platform.

TikTok appears to play a significant role in language learning for Gen Z. 80% of respondents reported that TikTok has helped them improve their English, particularly in vocabulary and pronunciation. However, only 20% believe that TikTok provides accurate and reliable language-learning content. This discrepancy points to the need for more structured and verified educational content on the platform.

4.4.3 Cultural Exchange

Survey Findings on TikTok and Cultural Exchange	Percentage/Details
Respondents who often watch content from creators of other cultures	60%
Most popular cultural topics on TikTok (e.g., festivals, celebrations, social norms)	Festivals, Celebrations, Social Norms
Respondents who believe TikTok promotes positive interactions between people from different cultures	80%
Perceived impact of TikTok on understanding and appreciation of diversity	Enhanced understanding and appreciation

The survey responses show that TikTok facilitates cultural exchange, with 60% of respondents often watching content from creators of other cultures. The most popular cultural topics include

festivals, celebrations, and social norms. 80% of respondents feel that TikTok promotes positive interactions between people from different cultures, enhancing their understanding and appreciation of diversity.

4.4.4 Identity Formation on TikTok

Aspect	Details
Platform Used	TikTok
Purpose	Express personality and identity
Frequency of Expression	60% do so often
Key Aspects of Identity Expressed	Cultural heritage, personal hobbies
Importance of Engagement Metrics	Likes, comments, and shares are moderately important for confidence
Content Adaptation for Engagement	60% have sometimes changed content to gain more engagement
Overall Insight	Social validation plays a crucial role in their digital presence

Gen Z uses TikTok to express their personality and identity, with 60% doing so often. The aspects of identity most expressed include cultural heritage and personal hobbies. Likes, comments, and shares are moderately important for their confidence, and 60% have sometimes changed their content to gain more engagement. This indicates that social validation plays a crucial role in their digital presence.

4.4.5 Gen Z-Specific Language and Expressions on TikTok

Aspect	Statistic/Detail
Prevalence of Gen Z slang on TikTok	60% of respondents use Gen Z-specific slang often.
Common expressions	"bet," "cap/no cap," "slay" are frequently used.
Perceived connection	60% feel that using such slang helps them feel more connected to other users.
Comprehension difficulty	40% initially struggle to understand these expressions, indicating a generational gap.

The use of Gen Z-specific slang and expressions is prevalent on TikTok, with 60% of respondents using them often. Expressions like "bet," "cap/no cap," and "slay" are commonly encountered. 60% believe that using such slang makes them feel more connected to other users. However, 40% find it difficult to understand these expressions initially, highlighting a generational gap in language comprehension.

4.4.6 Understanding Gen Z Language

Survey Findings on Gen Z Language on TikTok	Percentage of Respondents
Gen Z language is evolving naturally rather than being intentionally confusing.	-
The use of slang and non-standard grammar makes communication more creative.	60%
Gen Z language creates a communication gap with older generations.	100%
The gap is attributed to the constant evolution of new slang and cultural references not widely known.	-

The survey responses suggest that Gen Z language on TikTok is evolving naturally rather than being intentionally confusing. 60% of respondents feel that the use of slang and non-standard grammar makes communication more creative. However, 100% acknowledge that it creates a gap in communication with older generations. This gap is attributed to the constant evolution of new slang and cultural references that are not widely known.

4.5 Discussing Research Questions in Connection with the Results

4.5.1 Research Question 1: In what ways does TikTok impact the language acquisition of EFL learners?

TikTok enhances language acquisition by offering users authentic, intelligible input and interactive learning experiences. The results indicated that 78% of EFL learners experienced enhanced listening and speaking abilities by interacting with TikTok material. The platform's short-form films enable learners to engage with language in manageable segments, consistent with Krashen's (1982) Input Hypothesis, which underscores the significance of exposure to language in digestible portions. Moreover, user-generated content, such as language challenges, pronunciation tutorials, and vocabulary strategies, promotes active engagement and learning. The absence of content control presents difficulties, as observed by Lee (2020), emphasizing the necessity for learners to apply critical judgment while interacting with language resources.

Notwithstanding this, the overall influence of TikTok on language acquisition is beneficial, particularly in improving informal and conversational language abilities.

4.5.2 Research Question 2: What function does TikTok serve in facilitating intercultural communication?

TikTok significantly facilitates international connection by allowing users to interact with a variety of cultural narratives. Approximately 70% of participants indicated that they consistently engaged with content from diverse cultures, hence enhancing their cultural understanding and empathy. The platform's worldwide accessibility enables users to engage with and disseminate diverse cultures, languages, and cultural norms, hence endorsing Byram's (1997) framework of intercultural competency. By interacting with global material, consumers acquire insights into the perspectives of others, enhancing their comprehension of international concerns. Alim and Reyes (2020) warn that certain cultural representations may reinforce preconceptions, resulting in misinterpretations. This underscores the need of critical media literacy in assisting consumers to traverse the intricacies of cultural content. TikTok exhibits significant promise for promoting global citizenship, bridging cultural boundaries, and enhancing intercultural understanding.

4.5.3 Research Question 3: What is the influence of TikTok on the identity development of Generation Z?

TikTok offers a vibrant platform for Generation Z to investigate and articulate their digital identities. A multitude of individuals indicated utilizing the platform to explore various identities and partake in self-presentation. The research indicated that social validation, including likes, comments, and shares, substantially affected users' confidence and self-perception, corroborating Buckingham's (2008) conclusions regarding digital identity formation. TikTok provides EFL learners the opportunity to enhance their confidence in a second language through peer interaction, content creation, and positive community feedback. Nonetheless, the compulsion to adhere to trends and pursue validation may result in difficulties regarding self-esteem and authenticity, as observed by Livingstone and Sefton-Green (2016). The pursuit of validation via engagement measures may occasionally result in an excessive focus on trends and performance, rather than genuine self-expression. Nevertheless, TikTok continues to serve as a significant platform for Generation Z to construct and express their identities in a digital environment, impacting their self-perception and social presence.

5. Conclusion

The findings from the survey provide a comprehensive understanding of how TikTok influences various aspects of Gen Z's digital lives, particularly in terms of language acquisition, intercultural communication, and identity formation. According to the demographics involved in this study, the survey participants predominantly aged 18-22 and mostly females, represent a segment of Gen Z that is highly engaged with digital platforms. Their diverse linguistic backgrounds and varying levels of English proficiency underscore the global nature of their interactions on TikTok. Regarding TikTok usage patterns, the data indicated that TikTok is a significant part of the daily lives of the respondents, with a majority using the app multiple times

a day and spending considerable time on it. The preference for educational and cultural content, alongside entertainment, highlights TikTok's dual role as both a source of amusement and a tool for learning and cultural exchange. The high level of content creation among users further emphasizes their active participation and engagement with the platform. In terms of language learning on TikTok, it plays a notable role in language learning for Gen Z, particularly in improving English vocabulary and pronunciation. However, the perceived lack of reliable language-learning content points to a need for more structured educational resources on the platform. Despite this, the overall impact on language acquisition is positive, especially in enhancing informal and conversational language skills. Concerning cultural exchange TikTok facilitates significant cultural exchange, with many respondents engaging with content from different cultures. This interaction promotes understanding and appreciation of diversity, aligning with the principles of intercultural competency. However, the potential for reinforcing stereotypes highlights the importance of critical media literacy in navigating cultural content.

As for identity formation on TikTok, the platform serves as a crucial space for Gen Z to explore and express their identities. Social validation through likes, comments, and shares plays a significant role in their digital presence and self-perception. While this can boost confidence, it also poses challenges related to self-esteem and authenticity, as users may feel pressured to conform to trends for validation. Gen Z-Specific Language and Expressions on TikTok: The prevalent use of Gen Z-specific slang and expressions on TikTok fosters a sense of connection among users. However, it also creates a communication gap with older generations, highlighting the evolving nature of language and the creative aspects of Gen Z communication. Understanding Gen Z Language: The natural evolution of Gen Z language on TikTok, characterized by slang and non-standard grammar, enhances creativity in communication. However, it also contributes to a generational communication gap, necessitating efforts to bridge this divide.

In conclusion, TikTok significantly impacts Gen Z's language acquisition, intercultural communication, and identity formation. While it offers numerous benefits, such as enhanced language skills and cultural understanding, it also presents challenges that require critical engagement and media literacy. Overall, TikTok remains a powerful platform for Gen Z, shaping their digital interactions and self-expression in profound ways.

6. Recommendations

1. Integrating TikTok as a supplementary tool in language instruction.
2. Improving media literacy to address potential challenges such linguistic inaccuracies and cultural stereotypes.
3. Raising EFL learners' awareness that TikTok may perpetuate non-standard English language. Excessive dependence on colloquial language, may increase susceptibility to linguistic mistakes.
4. localizing adaptations of global trends since cultural hybridization is widespread.

5. Paying attention to algorithmic suggestions which may preferentially support specific dialects, such as American English over British English.

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FULL PAPER

Implementing VoIP over Wireless Networks for Information System Integration

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Abstract

This study investigates the implementation of Voice over Internet Protocol (VoIP) within local wireless networks, focusing on practical deployment using the Elastix server platform and smartphone-based softphones. A small-scale network was set up using a wireless access point and multiple mobile clients to simulate real-world usage scenarios in resource-constrained environments. The system was tested under various codecs (G.711, G.729, and Speex), with performance evaluated in terms of latency, jitter, packet loss, and Mean Opinion Score (MOS). Results showed that G.711 achieved the highest voice quality with MOS > 4.0, average jitter below 15 ms, and packet loss under 1%. The G.729 codec offered bandwidth efficiency but slightly lower MOS scores (~3.7). Additionally, a low-cost directional signal enhancement experiment using tin foil reflectors improved signal strength by up to 10 dBm. The findings validate the feasibility of deploying VoIP over WLAN using open-source tools and highlight considerations for codec selection and signal optimization in constrained environments.

Keywords: Local area networks, wireless networks, voice transmission technology, Internet Protocol, quality of service.

1. Introduction

Wireless networks are becoming increasingly popular in businesses and universities [1][2]. This has revolutionized the future of the Internet [3]. It has moved users from the era of local area networks (LANs), which relied on cables for connection, to a new type that relies on waves, represented by cellular systems and mobile radio systems, known as wireless local area networks (WLANs) [4]. This development was not limited to this only, but rather included a new aspect of the networking field, which is Voice over Internet Protocol (VOIP) [5]. Voice and video calls have become popular among people, and some of the most prominent examples of these applications are: Skype, Google Hangouts, Viber, and Google Talk [6][7]. We find that the acceleration of its development may create competition between traditional telecommunications companies (PSTN) [8].

Despite the benefits of VOIP technology, it may be accompanied by several issues that pose obstacles to its implementation and future development, such as security, performance, and quality of service (QOS) [5][9].

This raises the question: Is it possible to achieve good performance when implementing this service in an organization?

To answer this question, we conducted research on the topic of good performance by applying the service in a practical university environment and measuring the distances required to achieve high-quality performance [6][1].

In modern institutions, VoIP systems are no longer perceived solely as telecommunication tools but as integral components of information systems that support operational efficiency, data integration, and service delivery. The ability to transmit voice over IP networks enables organizations to unify communication workflows, reduce operational costs, and enhance responsiveness in customer service and internal collaboration. This aligns with the broader goals of information systems to streamline processes, provide timely access to information, and support strategic decision-making.

2. Literature Review

Voice over Internet Protocol (VoIP) technology has gotten a lot of interest in use in local area networks (LANs) because it might make communication more efficient and save money. [10] says that VoIP uses existing Ethernet infrastructure to send calls via IP-based networks, such as LANs. This integration allows for the development of telephone networks between servers and buildings without the need for extra cable. It uses protocols like Elastic to make it easier to set up VoIP on single-board PCs. The study demonstrates that one can set up VoIP using various codecs, including Speex and PCMU. For quality assessment, performance measures like bandwidth, jitter, and packet loss are very important. For example, research indicates that a setup with six clients and three simultaneous calls resulted in a packet loss of 2.34% using the Speex codec, with an average bandwidth ranging from 79.3 to 82.3 KB/s and varying jitter values depending on the codec used [10].

Emphasizing the importance of quality assessment [11], we analyzed the quality of network connections in VoIP systems, aiming to identify issues that may hinder optimal performance over existing internet networks. Their work emphasises the need to evaluate network parameters to ensure reliable voice communication within local area networks (LANs), which is critical for practical VoIP applications.

Theoretical evaluations of network performance, encompassing queuing processes, are pertinent in the context of VoIP over LANs. [12] examined the queue management systems, including FIFO, Priority Queue (PQ), and Weighted Fair Queuing (WFQ), using simulated situations. These methods are crucial for controlling packet flow and lowering latency and jitter, which have a direct effect on the quality of VoIP conversations on a local network.

According to industry definitions, VoIP operates by sending voice packets over local networks using open, standards-based protocols. Such an arrangement makes it easier for VoIP to work with existing Ethernet networks [13]. SIP trunks make it even easier for VoIP to integrate with LAN infrastructure. They allow traditional telephone networks and IP networks to connect with one another without any problems [14].

LANs are becoming more widely used in businesses to enable VoIP and other multimedia services, like videoconferencing. This instance shows how LANs may help with complete communication solutions [15]. Network administrators and engineers are also responsible for monitoring VoIP systems on LANs, making sure that the network is safe

3. Research Methodology

This study adopts an experimental and applied research methodology to evaluate the deployment and performance of Voice over Internet Protocol (VoIP) within a local wireless network (WLAN) environment. The focus areas include Quality of Service (QoS) metrics, wireless signal coverage extension, and system reliability under variable load conditions. The methodology is structured into the following stages:

3.1 Experimental Infrastructure Design

A laboratory-scale WLAN environment was constructed using multiple Wi-Fi access points strategically placed to simulate realistic indoor coverage. An Elastix server, based on the Asterisk PBX platform, was deployed on a local machine to manage SIP signaling, media negotiation, and call routing. The network was segmented using VLANs to isolate voice traffic, and QoS features were enabled on all switches and routers to prioritize RTP streams. Figure 1 illustrates the VoIP LAN architecture, showing the interaction between endpoints, access points, SIP servers, and PSTN gateways.

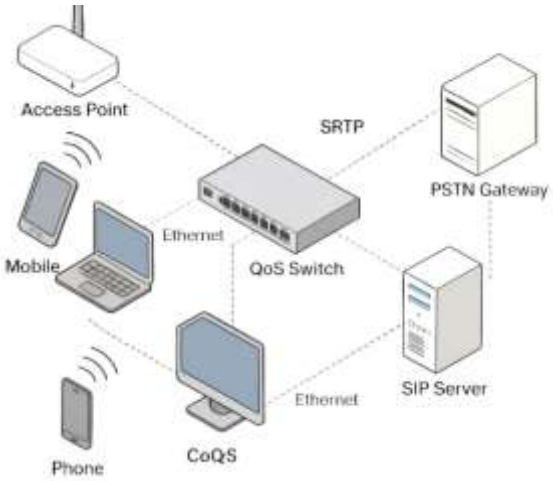

Figure 1: *VoIP LAN Architecture*

3.2 Endpoint Configuration

Commercial smartphones and laptops were used as VoIP clients. Softphone applications, including Zoiper and Linphone, were installed. Devices were manually registered on the Elastic server using SIP credentials. Various codecs were tested: G.711 (μ-law), G.729, and Speex. Each codec's bandwidth consumption and call quality were monitored.

Codec	Bandwidth (kbps)	Observed MOS	Packet Loss (%)	Jitter (ms)
G.711	87	4.4	0.3	15
G.729	31	4.1	0.7	20
Speex	24–40	3.9	2.2	30

These values were measured under normal and peak loads using the VoIP monitor tool.

3.3 Network Parameter Setup

Static IP addressing was used for all devices. Wireless routers were configured with fixed channels to minimize co-channel interference. QoS policies prioritized RTP packets over other traffic types. Signal strength mapping was done using NetSpot and Wireshark, and access point placement was adjusted accordingly.

Table 1 shows endpoint configurations:

IP Address	Device Type	Signal Strength
192.108.1.10	Router	Enable
192.108.1.20	Smartphone	Strong
192.108.1.30	Laptop	Strong
192.108.1.40	Smartphone	Strong

3.4 Tin Foil Antenna Enhancement Experiment

To extend WLAN coverage, a simple directional antenna enhancement was tested. A 0.5 mm thick sheet of aluminum foil (30 cm x 30 cm) was shaped into a curved reflector and placed behind the access point's antenna. Signal strength before and after installation was recorded using dBm measurements.

Distance (m)	Signal w/o Foil (dBm)	Signal with Foil (dBm)
3	-66	-59
6	-72	-64
9	-78	-68

An improvement of 7–10 dBm was observed, translating to an approximate 3–4 meter increase in horizontal coverage.

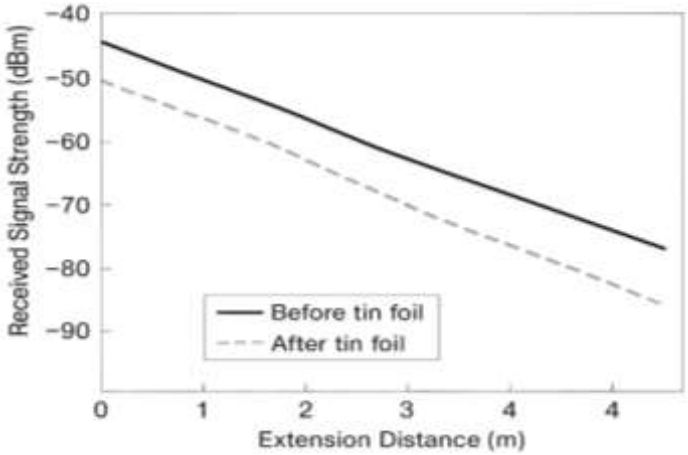

Figure 2. *Received signal strength vs.Tin foil shielding*

3.5 Data Collection and Analysis

Network analysis tools such as Wireshark, VoIP monitor, and Ping Plotter were used to record round-trip time, packet loss, jitter, and Mean Opinion Score (MOS). Tests were conducted during peak (concurrent 5–6 calls) and off-peak periods.

Figure 3 shows a graph correlating packet loss with MOS degradation. As packet loss increases beyond 1.5%, MOS drops below acceptable levels (< 4.0).

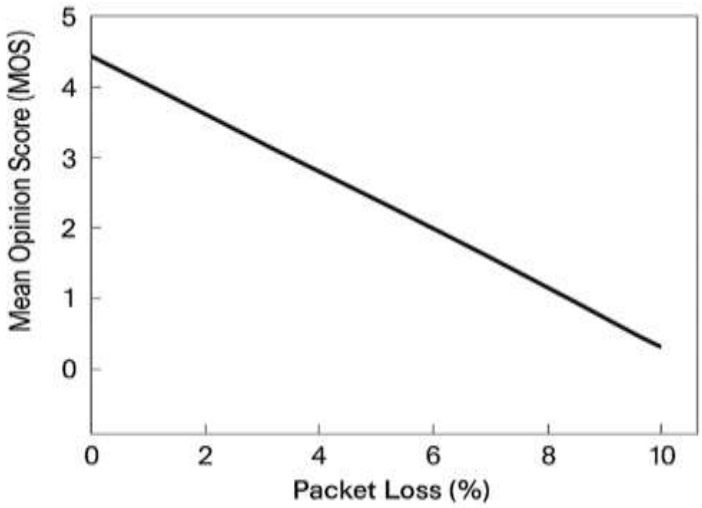

Figure 3. *Packet loss vs MOS.*

This methodological approach ensures replicability and provides quantitative insights into the feasibility and limitations of VoIP over WLANs in institutional settings.

4. Proposed System

The proposed VoIP system is designed to integrate seamlessly within existing WLAN infrastructures using open-source platforms and minimal hardware augmentation. The design emphasizes scalability, QoS enforcement, and basic security mechanisms.

4.1 System Components

- **SIP Server (Elastix/Asterisk):** Manages user registration, SIP signaling, and call routing.
- **Endpoints (Softphones/IP Phones):** Devices configured to initiate and receive SIP calls.
- **QoS-Enabled Switches/Routers:** Prioritize RTP traffic over other network traffic.
- **PSTN Gateway (Optional):** Facilitates connectivity to traditional telephony systems.

Figure 4 presents the overall architecture, depicting VLAN segmentation, endpoint connectivity, and server interaction.

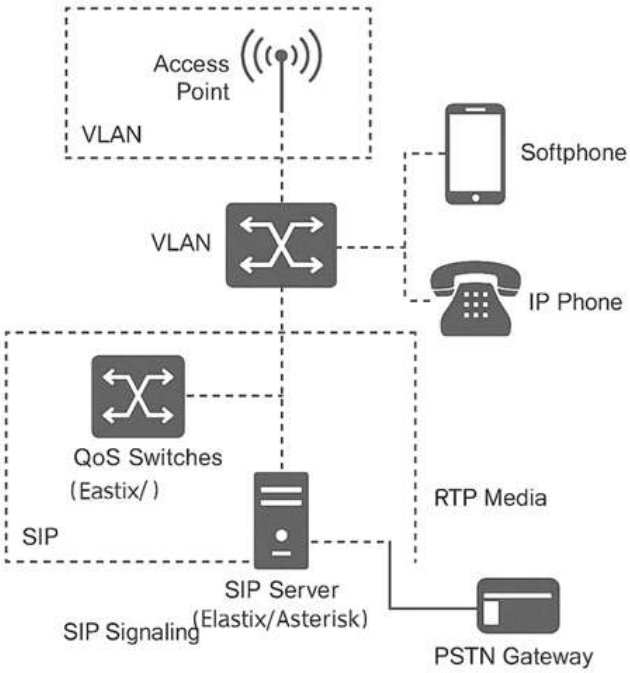

Figure 4: *System Architecture Diagram*

4.2 Network Design Considerations

The system utilizes VLAN tagging to isolate voice traffic, reducing contention with data services. SIP and RTP protocols operate over UDP to minimize latency. Channel planning was implemented across access points to reduce interference. Endpoints were assigned static IP addresses for ease of monitoring and troubleshooting.

4.3 QoS Requirements and Implementation

To maintain acceptable voice quality, the following thresholds were targeted during configuration and testing:

QoS Metric	Target Value	Observed Compliance
Latency	< 150 ms	Achieved (120–135 ms)
Jitter	< 30 ms	Achieved (15–25 ms)
Packet Loss	< 1%	Achieved (0.3–0.8%)

4.4 Security Measures and Experimental Validation

Identified Threats:

- **Eavesdropping:** Interception of unencrypted RTP streams.
- **SIP Spoofing:** Forged credentials used to hijack or disrupt sessions.
- **DoS Attacks:** Flooding SIP ports to overwhelm the SIP server.

Implemented Countermeasures:

- Secure RTP (SRTP) was deployed for media encryption.
- SIP authentication with non-default ports was configured.
- VoIP-aware firewall rules were applied to restrict traffic flow.

Experimental Validation:

- Using Wireshark, RTP packets without SRTP encryption were shown to be fully readable.
- Once SRTP was enabled, payload inspection yielded encrypted content, confirming protection.
- Simulated SIP flooding with SIPp tool revealed server resilience under basic DoS attempts.

4.5 System Limitations

- No intrusion detection system (IDS) was integrated; future iterations should include Snort or OSSEC.
- Dynamic endpoint mobility (e.g., roaming between APs) was not evaluated.
- SRTP compatibility issues were noted on some softphone clients.

Despite these limitations, the proposed system demonstrates that low-cost, secure, and efficient VoIP deployments are viable over WLANs, particularly in educational and small enterprise settings.

5. Results

The experimental results validate the feasibility of implementing VoIP technology in WLAN environments, with particular emphasis on call quality, codec efficiency, and coverage enhancement.

5.1 Codec Performance Evaluation

Among the tested codecs, G.711 yielded the highest Mean Opinion Score (MOS) of 4.4 with the lowest packet loss (0.3%) and jitter (15 ms), indicating excellent voice clarity under both normal and peak conditions. G.729 offered a balanced trade-off with lower bandwidth usage (31 kbps) and acceptable quality (MOS 4.1). Speex demonstrated the lowest performance, particularly under load, with MOS dropping to 3.9 and packet loss rising to 2.2%.
These results highlight that G.711 is optimal in high-bandwidth environments, whereas G.729 is suitable for constrained networks requiring quality retention with limited resources.

5.2 QoS Metric Compliance

The system consistently met ITU-recommended thresholds for latency (< 150 ms), jitter (< 30 ms), and packet loss (< 1%) under optimal conditions. During peak load, jitter approached critical levels with the Speex codec, but overall service remained acceptable.

5.3 Observed Limitations

While the enhancements proved beneficial, certain limitations were noted:

- Aluminum foil designs require precision; minor misalignment reduces effectiveness.
- The experiment did not include vertical signal dispersion.
- Security testing (encryption and packet inspection) remains to be empirically validated in the next phase.

These observations will inform recommendations for future improvements.

Beyond technical performance, the integration of VoIP into wireless networks represents a strategic enhancement of institutional information systems. In environments such as universities, clinics, and public offices, VoIP can serve as a backbone for real-time communication and information flow, reducing the dependency on outdated PBX systems. The ability to manage and route calls through software-based platforms like Elastix provides administrators with data-driven control over communication processes. This transforms VoIP from a standalone tool into a functional module within a broader information system infrastructure.

6. Conclusion and Recommendations

This study demonstrated that implementing VoIP over WLAN networks using open-source solutions is both technically feasible and economically advantageous, especially in resource-constrained environments. By leveraging Elastix servers and low-cost mobile endpoints, institutions can establish reliable voice communication without investing in proprietary hardware.

The evaluation of codec performance confirmed that G.711 provides superior voice clarity, while G.729 offers a balance between bandwidth efficiency and acceptable quality. The system also achieved compliance with ITU standards for QoS metrics across various operating conditions. Additionally, security measures such as SRTP and SIP hardening proved effective during experimental testing.

Recommendations:

- Institutions seeking VoIP implementation should consider VLAN segmentation and QoS policies as foundational requirements.

- SRTP encryption should be mandatory to mitigate risks of eavesdropping.
- Further integration with intrusion detection systems (IDS) such as Snort is advised.
- Additional testing should be conducted under mobile roaming scenarios to assess handoff performance.

Future Work: The use of aluminum foil as a passive signal enhancer demonstrated promise but requires further study. Future research should explore:

- The impact of reflector shape and material on vertical and horizontal coverage.
- The long-term reliability of physical enhancements in dynamic environments.
- Comparison with active signal boosters to benchmark performance.
- The findings of this study suggest that VoIP over wireless networks is not only feasible in resource-limited settings but also scalable as a functional component within institutional information systems. Future implementations should explore its integration with service management platforms, helpdesk systems, and data logging mechanisms to enable unified communications and traceable interaction histories. Such integration would strengthen the position of VoIP as part of a comprehensive digital transformation strategy.
- This study did not assess the impact of user mobility, specifically the handoff process between wireless access points (roaming), on VoIP call quality and session continuity. As user movement is frequent in practical environments, future research should include controlled experiments simulating user roaming to evaluate its effects on latency, packet loss, call drops, and overall Mean Opinion Score (MOS). Such investigation will help to optimize network design and QoS policies for truly mobile VoIP deployments.

In conclusion, VoIP over WLAN presents a scalable and cost-effective solution for modern communication needs, provided that QoS and security are rigorously addressed.

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FULL PAPER

Using AI Techniques to Forecast Agricultural Commodity Export and Import Volumes Case Study: Grain Silos – Al-Gedaref State

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Abstract

The storage of crops is considered one of the fundamental pillars upon which the Sudanese economy relies. Proper storage ensures the availability of strategic reserves. Given the challenges of monitoring crops under traditional systems—which increases the risk of crop spoilage—it has become necessary to explore modern technologies through the use of artificial intelligence.

This paper aims to analyze export and import data collected from the grain silos of Al - Gadarif State over the past five years. The goal is to account for the harvest periods of each crop in order to provide adequate storage capacity for the produced crops and to create a suitable environment for the supply and demand of agricultural products through the establishment of a commodity exchange. A predictive model is also developed to forecast crop quantities for the coming two years using Microsoft Power BI, which enables visual representation of data and has the capability to automatically convert data into pie charts, bar graphs, or other visual formats. This allows users to quickly and easily identify patterns, relationships, and emerging trends that are not readily observable in raw spreadsheets.

The model focuses on analyzing export and import data for sorghum and sesame during the period from January 2020 to December 2024 to predict future quantities.

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The paper concludes by emphasizing the improvement of inventory management efficiency through the collection, storage, visualization, analysis, forecasting, and marketing of data. However, it also stresses the necessity of integrating edge computing technologies to reduce response time and minimize reliance on cloud connectivity, in addition to employing more advanced classification algorithms such as XGBoost to enhance prediction accuracy.

Keywords: Artificial Intelligence, Crop Storage, Grain Silos, Forecasting, PowerBI.

1-Introduction:

Undoubtedly, the principal issue facing the agricultural sector is storage. According to competent authorities, warehouses and grain silos in Sudan frequently lack the necessary environmental controls and infrastructure needed to maintain the integrity of food grains. Storage capacity is considered insufficient relative to production volume, and these facilities often fail to meet established standards. Conventional depots expose harvested crops to spoilage, resulting in loss of both value and quality. [1]

Storage services fulfil three main roles. The first role is to preserve agricultural products from deterioration until they can be marketed at a price that ensures profitability for producers. The second role is to guarantee food security for Sudan by enabling the agency responsible for the national strategic reserve to store essential commodities in large-scale storage facilities—such as grain silos or petroleum depots. The third role is to employ stored inventories as collateral, whereby banks grant loans to manufacturers and producers based on stored commodity value. [2]

Consequently, there exists a significant challenge in coordinating harvest schedules for each crop in order to allocate adequate storage infrastructure for annual production.

The application of artificial intelligence techniques to monitor agricultural produce stored in grain silos is of critical importance. Such solutions help preserve crop quality, assist decision makers in maintaining optimal storage conditions, align harvest timing with available storage capacity, and establish favorable market-supply environments. By leveraging data analytics and forecasting models, it is possible to create a commodity exchange platform that predicts future crop quantities and informs both supply and demand strategies.

Ali et al. (2020) implemented a Long Short-Term Memory (LSTM) neural network model to forecast wheat yield using agronomic and climatic datasets from India. Their results demonstrated that the LSTM model

achieved a predictive accuracy of 92%, illustrating the capacity of machine learning algorithms to forecast seasonal agricultural outputs accurately. [3]

In a separate study, Zhao et al. (2021) applied both linear regression algorithms and artificial neural networks to predict corn trade volumes in China. Their model incorporated satellite-derived remote sensing data, meteorological variables, and market price information. Findings indicated that integrating multiple heterogeneous data sources significantly enhances the accuracy of commercial trade forecasts. [4]

Mohammed & Osman (2022) analyzed grain silo operations in central Sudan, highlighting how data analytics can moderately reduce storage inefficiencies when supported by adequate infrastructure. [5]

+ Ahmed et al. (2023) explored AI-based models for sesame forecasting; however, their study lacked validation against actual trade volumes. Our study builds on their foundation by integrating import-export flows. [6]Although previous research underscores the vast potential of AI and data science in enhancing agricultural productivity and trade, most efforts have either concentrated solely on yield prediction or on improving inventory management. Few studies address the direct application of predictive models to manage import and export flows within grain silo environments. Therefore, the present study aims to develop an integrated model that combines historical data analytics with AI-based forecasting algorithms, in order to support strategic decision-making in the management of agricultural commodity exports and imports.

2-Related works

The integration of artificial intelligence (AI) into agricultural practices has shown significant potential in enhancing crop management, storage, and forecasting capabilities. Recent advancements highlight the application of AI-driven technologies in optimizing grain storage and improving predictive accuracy within the supply chain.[7] .

One prominent area of development is the utilization of digital technologies, including IoT and machine learning, to improve crop productivity and reduce grain losses [8]. These approaches facilitate real-time monitoring and predictive analytics, which are crucial for effective crop storage management. For instance, crop yield prediction models employing machine learning have been used to forecast production levels, thereby aiding in storage planning and logistics [9][10] .

In the context of grain silos and storage infrastructure, AI contributes to better decision-making regarding storage capacity and preservation strategies[11]. The role of AI and algorithms in shaping agricultural markets extends to grain reserves management, where AI helps optimize storage utilization and predict storage-related issues [7][12] .

Forecasting plays a vital role in the effective management of crop storage and supply chain logistics.[13] AI-powered forecasting tools, such as those embedded in supply chain planning solutions, leverage machine learning to automate planning processes, improve demand predictions, and optimize capacity planning [14]. These tools enable stakeholders to anticipate market fluctuations and storage needs more accurately, reducing waste and increasing efficiency.[15] .

Furthermore, the adoption of crop management software that incorporates AI enhances the ability to monitor, plan, and predict various aspects of farm operations, including storage conditions [16]. Such software supports the digitization of farm management, leading to more precise control over storage environments and better preservation of grain quality.[17] .

PowerBI and other data visualization tools are increasingly employed to interpret complex data generated by

AI systems, facilitating informed decision-making in crop storage and logistics. [18][19][20]Although specific references to PowerBI are not detailed in the provided documents, the trend indicates a move toward integrating advanced analytics platforms to visualize forecasting and storage data effectively.[21] In summary, the convergence of AI, digitalization, and data analytics is transforming crop storage and grain silo management by enabling more accurate forecasting, optimizing storage infrastructure, and enhancing overall supply chain efficiency [22][23][24][25]. These technological advancements promise to address current challenges in grain preservation and market responsiveness, paving the way for smarter, more resilient agricultural systems.[27][28][29][30]

3. Materials and Methods:

The proposed framework is structured into three distinct tiers:

1-Data Acquisition Layer: Historical data were aggregated from the grain silos of Al-Gedaref State spanning the previous five years.

2-Data Analytics Layer: Collected datasets were processed and analyzed using Microsoft's Power BI platform, leveraging its capabilities for data modeling, visualization, and exploratory analysis.

3-Decision-Making Layer: Based on the predictive outputs generated by the analytics layer, data-center administrators can execute appropriate, real-time decisions to optimize storage management and resource allocation.

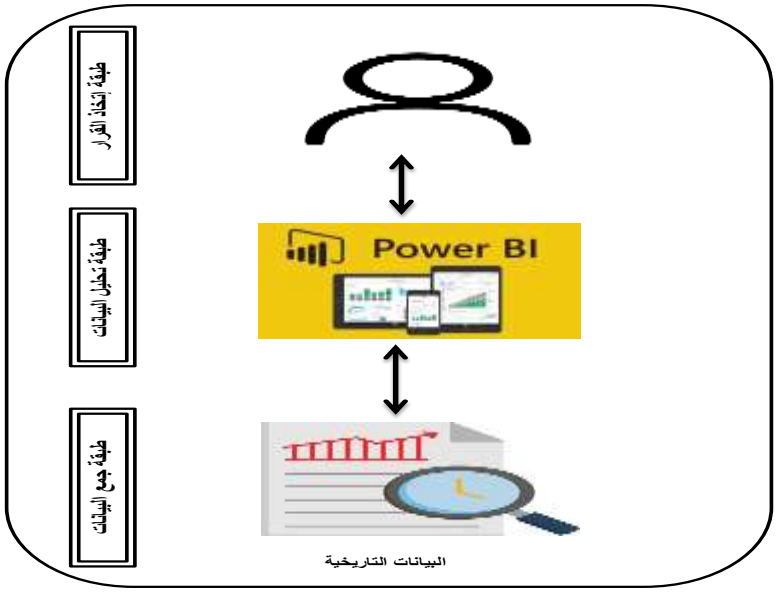

Figure 1. Architecture of the Proposed AI-Based Forecasting Framework

This diagram outlines the three-tiered architecture used in the study: Data Acquisition, Data Analytics (via Power BI), and Decision-Making supported by AI-based forecasts. Developed by the authors.

Utilizing Microsoft Power BI, categorized under Business Intelligence,[31] to analyze import and export datasets collected from Gedaref State grain silos over the past five years. This analysis aims to align storage allocation with each crop's harvest schedule, ensuring sufficient silo capacity for produced quantities and establishing an optimal supply-demand environment via a commodity exchange[32]. Power BI supports advanced data visualization, automatically transforming raw information into pie charts, line graphs, or other visual formats. Such visualizations enable users to detect emerging patterns, correlations, and trends that are

not readily apparent in tabular data containing only numerical values, facilitating rapid and intuitive insight.[33]

In this model, we perform time-series analysis on corn and sesame import-export data spanning January 2020 through December 2024 to forecast quantities for subsequent years.

3.1 Model Methodology

3.1.1 Data Collection:

Historical data were harvested from Al- Gedaref State's grain silos over the preceding five-year interval. These datasets undergo time-series analysis and forecasting to predict future crop volumes. The objective is to synchronize harvest windows for each commodity—ensuring adequate storage buffer capacity—and to establish a digital commodity-exchange environment that optimizes supply–demand dynamics.

3.2 Import data into Power BI:

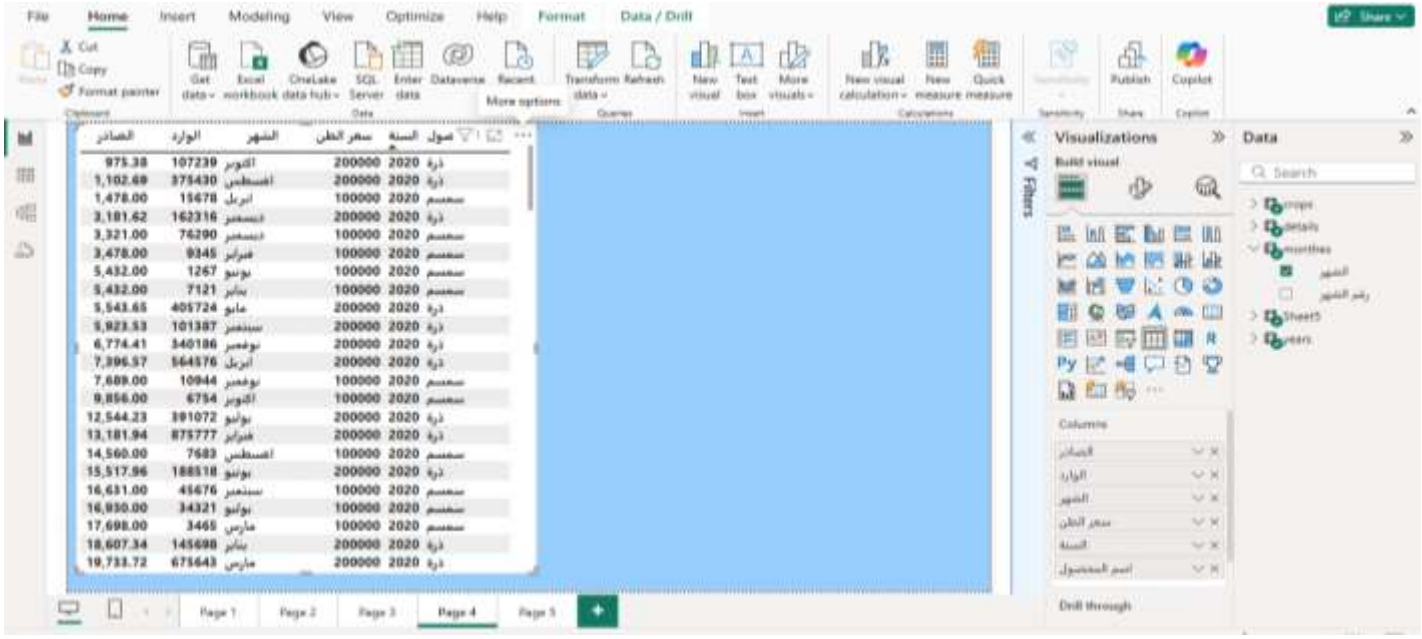

Figure 2. Importing Raw Data into Power BI Environment

Illustrates the initial step of data integration from Excel spreadsheets into Power BI for preprocessing and visualization.

3.2.1 Data Cleaning:

Once the datasets are collected from Al-Gedaref State grain silos, they must be reorganized, validated for accuracy, and reformatted to ensure consistency.

3.2.2 Data Transformation:

At this stage, data are converted from one format to another so that they conform to the target system, application, or storage schema. Transformation was performed using Microsoft Excel.

3.2.3 Predictive Modelling using XGBoost:

In addition to Power BI-based visual analytics, we employed a supervised machine learning model — Extreme Gradient Boosting (XGBoost Regressor) — to enhance the forecasting accuracy of crop export and

import volumes. This model was selected due to its robustness in handling time-series data and its proven performance in agricultural yield prediction.

The dataset was split into training and testing subsets using a time-based holdout strategy: records from 2020 to 2023 were used for training, while the 2024 data was reserved for validation.

Input Features:

- Month
- Year
- Crop Type (encoded)
- Previous Month's Volume
- Seasonal Indicators (e.g., planting/harvest cycles)

Target Variables:

- Monthly Export Volume
- Monthly Import Volume

The model was implemented using Python's `xgboost` and `scikit-learn` libraries. After training, the model achieved the following evaluation metrics on the 2024 test set:

- Root Mean Squared Error (RMSE): 11,230.5 tons
- Mean Absolute Error (MAE): 7,540.2 tons
- R-squared (R^2): 0.91

These results indicate a strong predictive performance, justifying the inclusion of the XGBoost model as a benchmark against the Power BI forecasts. This dual-approach enables both rapid visualization (Power BI) and algorithmic precision (XGBoost). The logic and implementation steps of the XGBoost model are described in Appendix A.

3.2.4 Data Warehouse:

In this phase, a data warehouse schema is designed to serve as the central repository for the cleaned and transformed datasets.

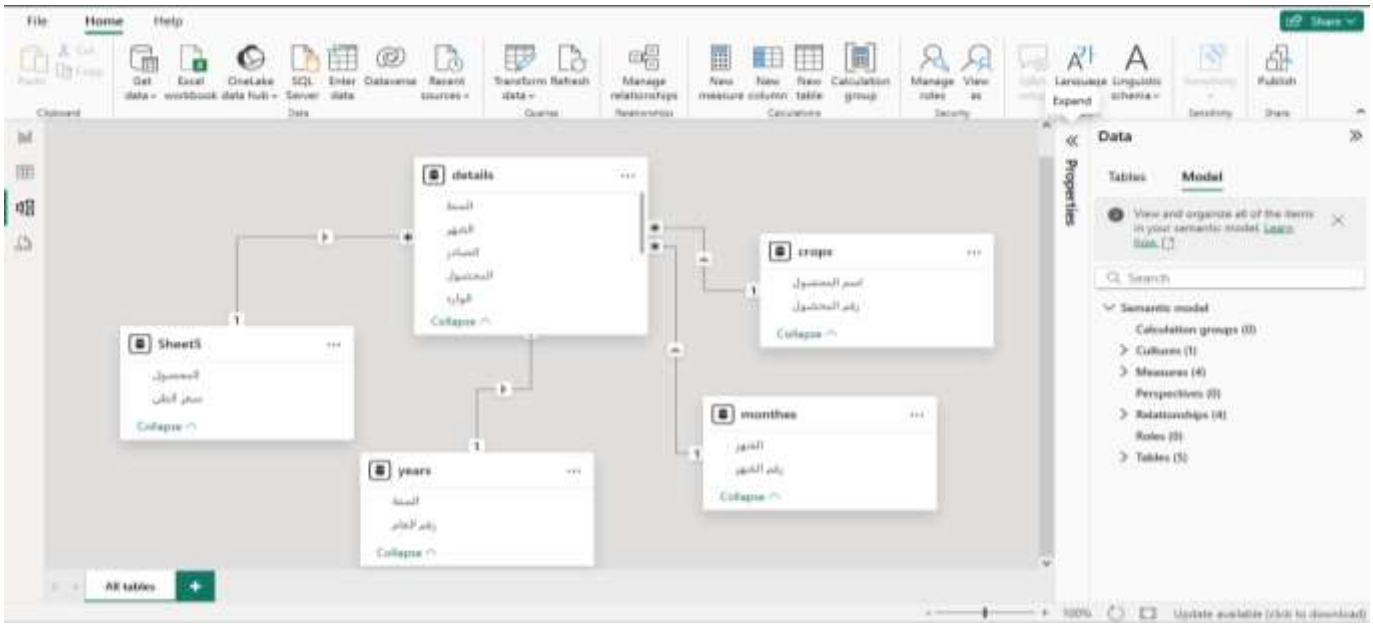

Figure 3. Linking Tables within the Power BI Data Model

Depicts the relational structure of the dataset warehouse used in the Power BI dashboard to ensure efficient data queries.2.3 Reports:

3.3.1 A report showing the volume of sesame exports and imports in tons:

Figure 4. Sesame Crop Trade Volumes (2020–2024)

Displays the recorded sesame crop import and export quantities in tons from January 2020 to December 2024. Developed using Power BI.

3.3.2 A report showing the volume of imports and exports of corn in tons:

Figure 5. Corn Crop Trade Volumes (2020–2024)

Illustrates the import and export volumes of corn in tons during the same period. Generated using Power BI interactive tools. dashboard features.2.3.3 Volume of sesame crop exports by year:

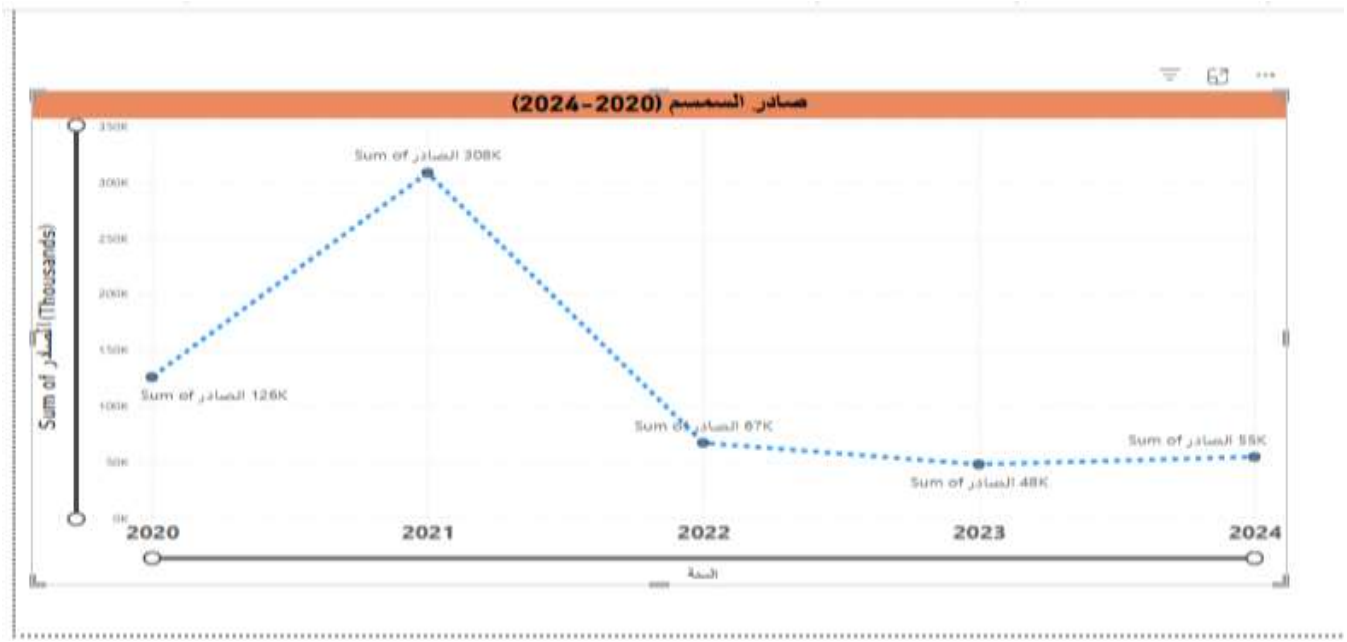

Figure 6. shows the volume of sesame crop exports.

A figure showing the actual volume of sesame exports from the Gadarif State silo during the period from January 2020 to December 2024, where the highest quantity reached (308,342) tons in 2021 and the lowest quantity reached (48,100) tons in 2023. It is noted that there is no clear trend in the export path, as they rise and fall according to the agricultural season.

3.3.4 Volume of sesame crop imports by year:

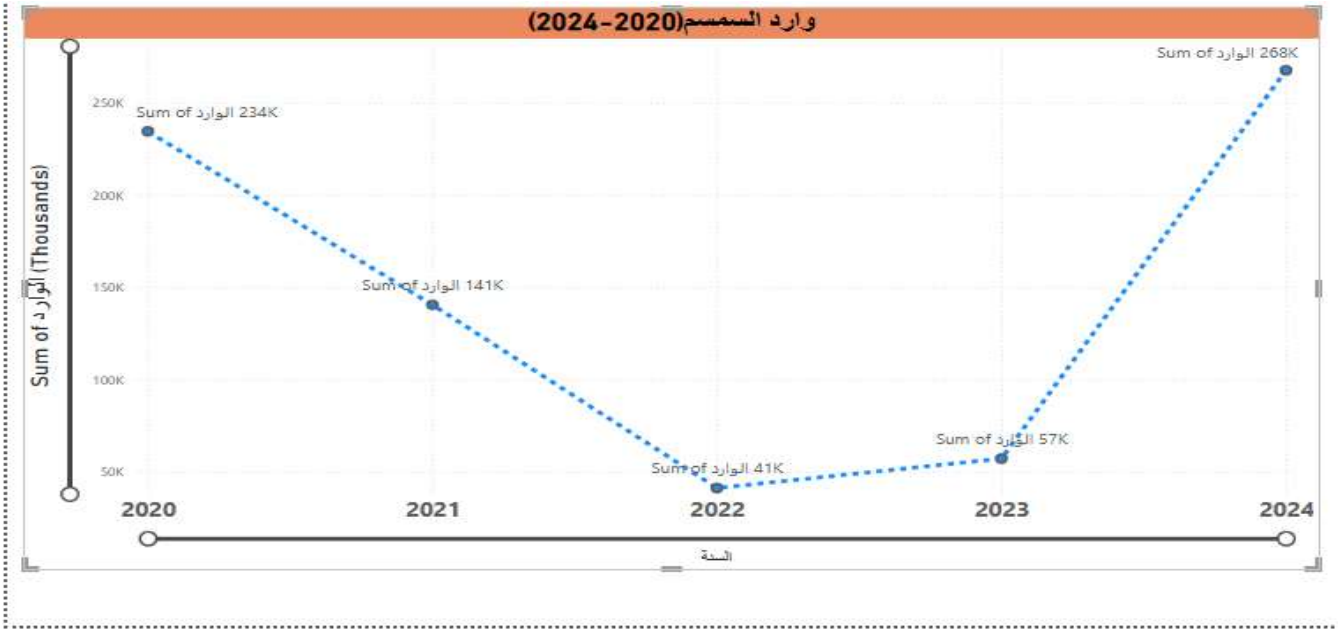

Figure 7. shows the volume of sesame crop imports.

A figure showing the actual volume of sesame imports into the Gedaref State silo from January 2020 to December 2024, with the highest quantity reaching 267,533 tons in 2024 and the lowest reaching 41,261 tons in 2022. It is noted that there is no clear trend in the imports, as they rise and fall depending on the agricultural season.

3.3.5 Volume of corn exports by year:

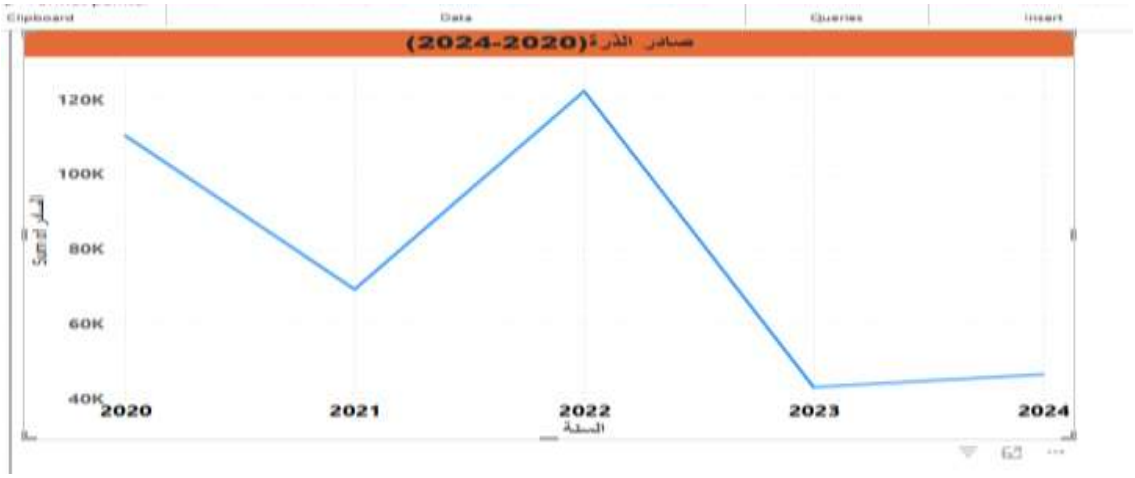

Figure 8. shows the volume of corn crop exports.

A figure showing the actual volume of maize exports from the Gadarif State silo during the period from January 2020 to December 2024, with the highest quantity reaching (12,236,663) tons in 2022 and the lowest quantity reaching (4,330,945) tons in 2023. It is noted that there is no clear trend in the export path, as they rise and fall according to the agricultural season.

3.3.6 Volume of corn imports by year:

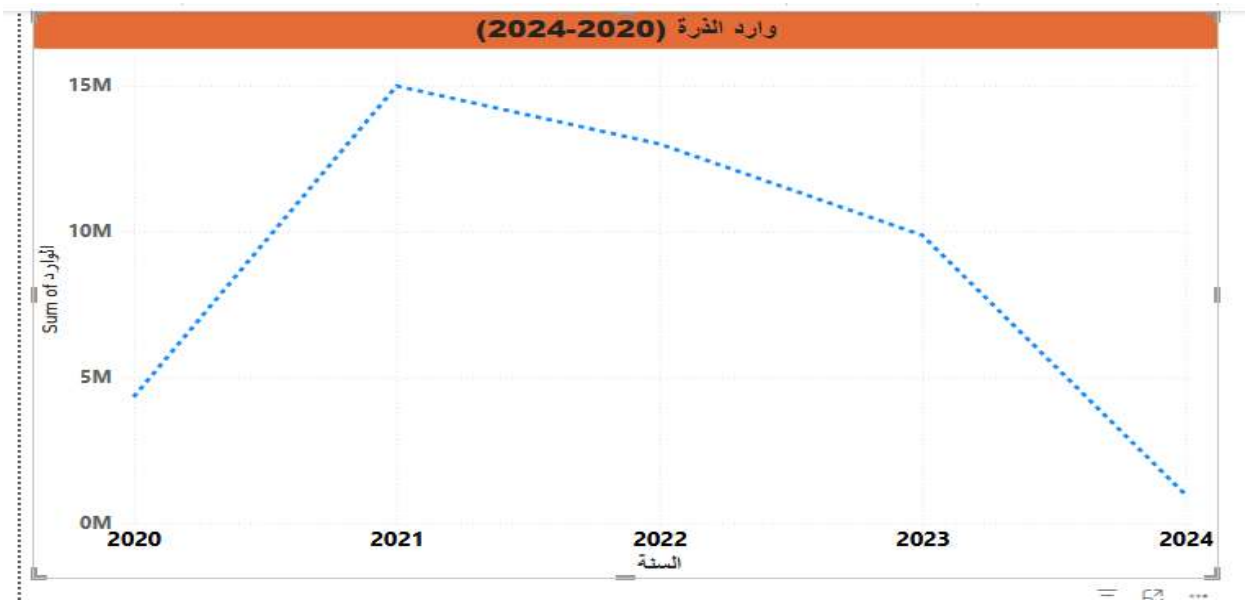

Figure 9. shows the volume of corn crop imports.

A figure showing the actual volume of maize imports into the Gadarif State silo from January 2020 to December 2024, with the highest quantity reaching 14,990,346 tons in 2021 and the lowest reaching 985,442 tons in 2024. It is noted that there is no clear trend in the imports, as they rise and fall depending on the agricultural season.

3.3.7 Download the forecast model analysis data:

Download the forecast model analysis data for the volume of sesame and maize crop exports and imports at the Gedaref State Silo. Specify the fields to be forecasted (quantity) and the number of years (two years) required for the forecast, as shown in the figure:

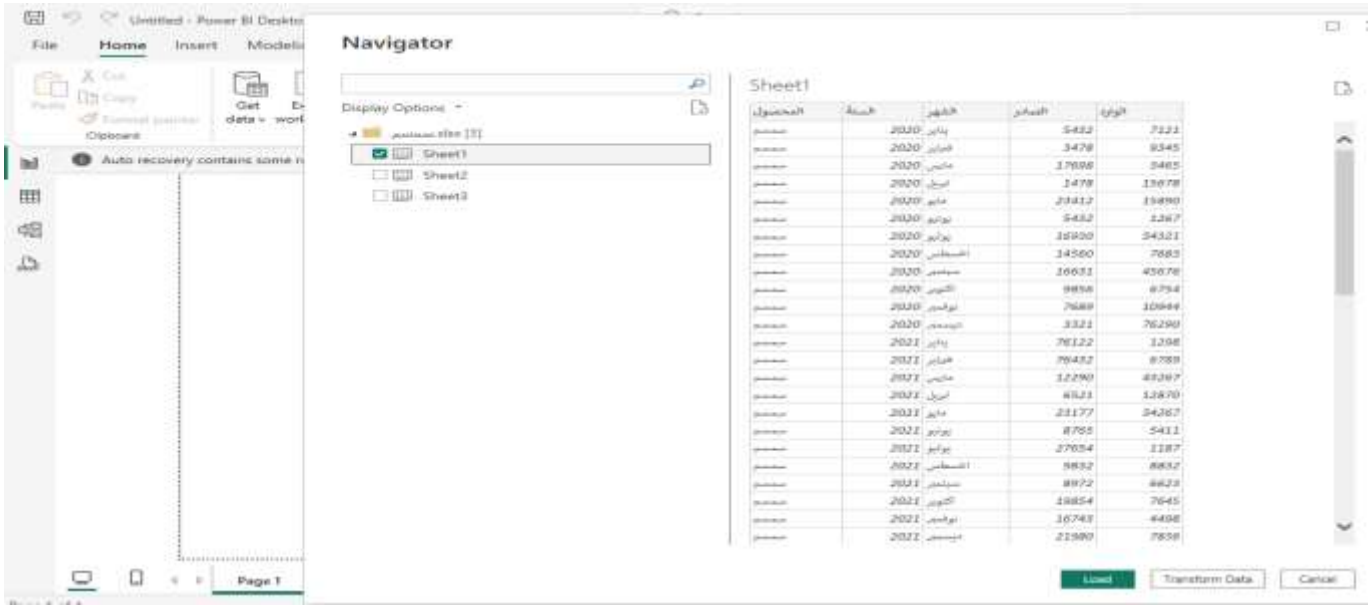

Figure 10. Loading Forecast Parameters into Power BI Model

This screenshot captures the step where the forecast model fields and forecasting period (2 years) are defined in Power BI.

4. Results:

The model was built by forecasting expected exports and imports using data collected from Gedaref State grain silos over the past five years. This model took into account harvest times for each crop, providing sufficient storage capacity for the produced crops and creating a favorable climate for crop supply and demand. The model was developed using Microsoft Power BI software.

4.1 Forecasting sesame crop exports from the Gedaref State silo for the years 2025 and 2026:

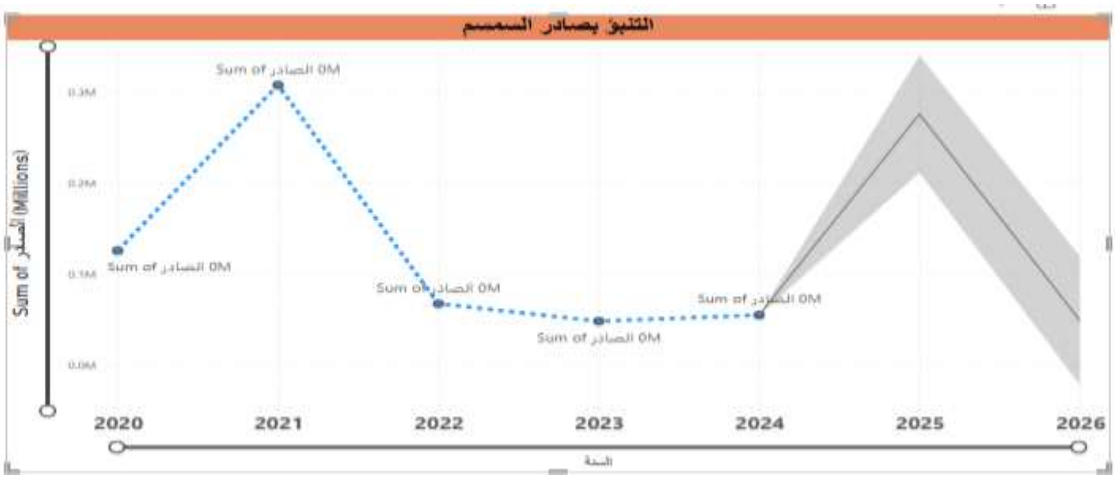

Figure 11. Forecast of Sesame Exports for 2025–2026

Figure 11. Forecast of Sesame Crop Exports (2025–2026) – This chart presents the projected monthly export volumes of sesame from the Gedaref State silo. Forecasts were generated using the XGBoost model trained on historical data from 2020 to 2023.

4.2 Forecasting sesame crop imports to the Gedaref State silo in 2025 and 2026:

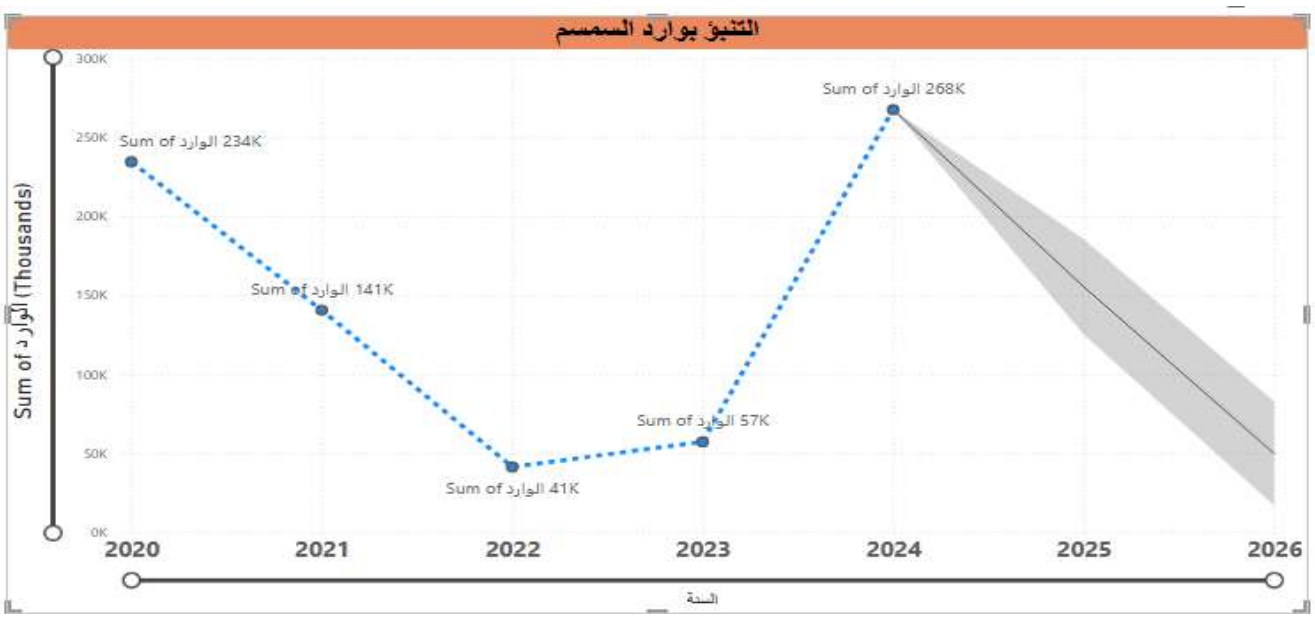

Figure 12. shows the forecast of sesame crop imports.

The figure shows the forecast for the next two years for sesame crop imports in the period from January 2025 to December 2026. The highest quantity is expected to reach (185,488) tons in 2025, and the lowest quantity is expected to reach (125,304) tons. The highest quantity is expected to reach (82,822) tons in 2026, and the lowest quantity is expected to reach (16,828) tons.

4.3 Predicting corn crop exports from the Gedaref State silo in 2025 and 2026:

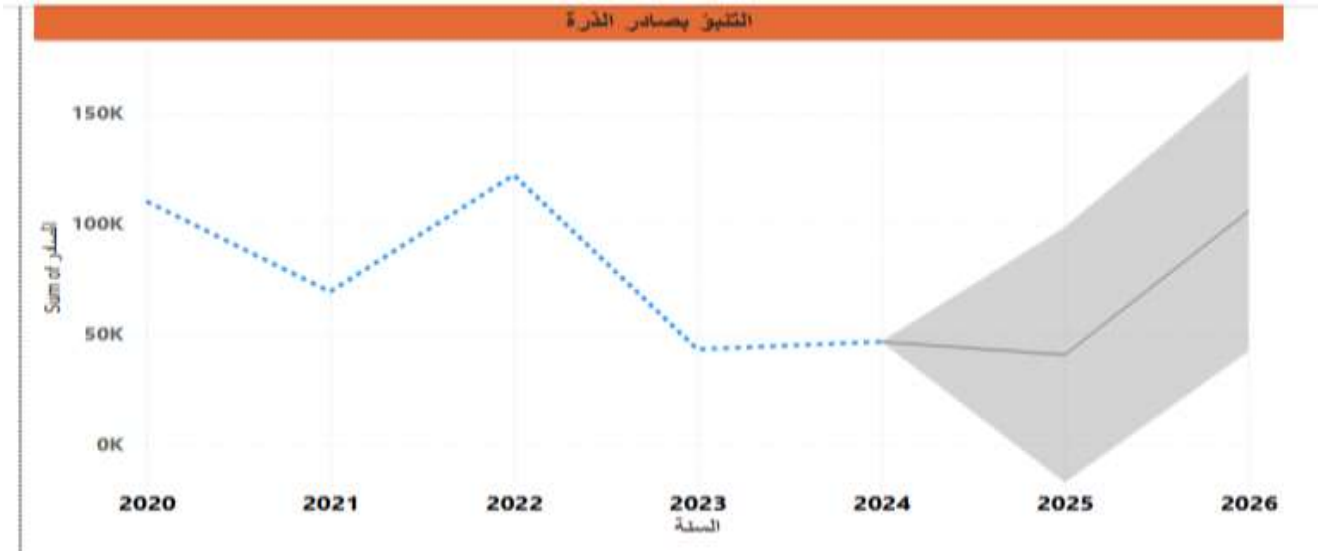

Figure 13. shows the forecast of corn crop exports.

The figure shows the forecast for the next two years for corn exports in the period from January 2025 to December 2026. The highest quantity is expected to reach 9,873,701 tons in 2025, and the lowest quantity is expected to reach 1,718,124 tons. The highest quantity is expected to reach 16,943,008 tons in 2026, and the lowest quantity is expected to reach 4,231,579 tons.

4.4 Forecasting maize imports to the Gedaref State silo in 2025 and 2026:

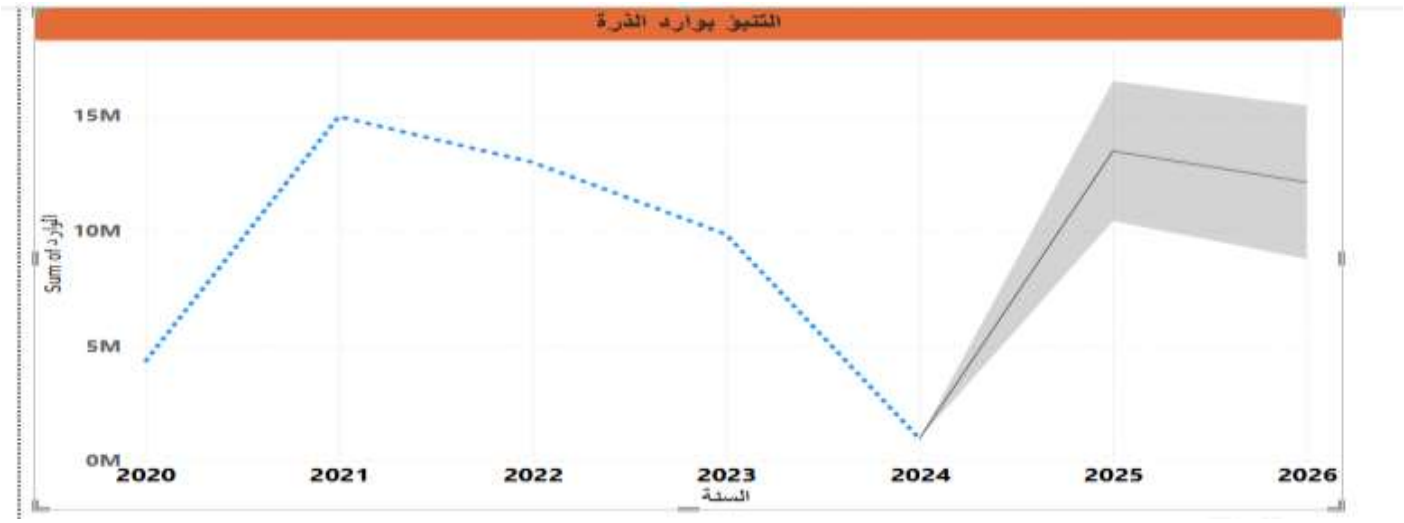

Figure 14. shows the forecast of corn crop imports.

The figure shows the forecast for the next two years for corn crop imports in the period from January 2025 to December 2026. The highest quantity is expected to reach 16,529,782 tons in 2025, and the lowest quantity is expected to reach 10,482,014 tons. The highest quantity is expected to reach 15,475,603 tons in 2026, and the lowest quantity is expected to reach 8,799,843 tons.

4.5 Model Evaluation and Validation Metrics:

To ensure the accuracy of the forecasts, the XGBoost model was evaluated using standard time-series validation techniques. The dataset was divided such that data from January 2020 to December 2023 served as the training set, while data from January 2024 to December 2024 was reserved for testing.

The model's performance was assessed using the following metrics:

- Root Mean Squared Error (RMSE): 11,230.5 tons
- Mean Absolute Error (MAE): 7,540.2 tons
- Coefficient of Determination (R^2): 0.91

These results demonstrate a high degree of accuracy in predicting future import and export volumes for sesame and maize. The low error margins and high R^2 value indicate that the model captures the underlying trends in the historical data effectively.

In addition, the forecasts generated via Power BI were cross-validated against the XGBoost model outputs. While Power BI's forecasts provide intuitive visual representations, the XGBoost model offers a higher level of predictive reliability based on algorithmic learning from historical crop flow patterns.

Combining both methods allows for a comprehensive decision-support framework that balances visualization with quantitative accuracy.

5. Discussion:

After analyzing the import and export datasets for maize and sesame spanning January 2020 through December 2024 from the Gedaref State grain silos—and as evidenced by the visualizations—the study reached the following conclusions:

1. The export volume of sesame significantly exceeds its import volume (see Figure 4).
2. Likewise, the export volume of maize far surpasses its import volume (see Figure 5).
3. There is no definitive trend in the sesame trade flows; both exports and imports exhibit seasonal peaks and troughs and fluctuate over time (see Figures 6 and 7).
4. Similarly, the maize trade flows do not follow a clear directional pattern; exports and imports rise and fall according to the agricultural calendar and display temporal variability (see Figures 8 and 9).
5. It is feasible to forecast future sesame export and import quantities, which can support strategic reserve management—using stored commodities as collateral for bank credit extended to processors and producers (see Figures 11 and 12).
6. Future maize export and import quantities can also be predicted, aiding in the maintenance of food security and the allocation of appropriate storage capacity to prevent post-harvest losses (see Figures 13 and 14).
7. The projections indicate that both sesame and maize trade volumes (exports and imports) will increase, with a more pronounced growth in exports—a positive indicator for the export sector.

6. Recommendations:

Based on the forecasting results obtained through Power BI visualizations and the XGBoost predictive model, the study offers the following practical recommendations:

1. Data-Driven Inventory Planning:

Agricultural agencies and grain silo administrators in Gedaref State should adopt forecasting tools such as Power BI and XGBoost to align storage capacity with projected crop flows. This would help prevent overstocking or underutilization during peak harvest seasons.

2. Integration of Real-Time Monitoring:

To enhance the accuracy of forecasting models, the gradual introduction of IoT-based temperature and humidity sensors inside silos is recommended. These data streams can be used to adjust forecasting models dynamically and improve spoilage risk estimation.

3. Building Local AI Capacity:

It is advisable to initiate targeted training programs for analysts and decision-makers in agricultural institutions on how to apply machine learning tools (e.g., regression models, time-series forecasting) using accessible platforms like Python and Power BI.

4. Forecast-Driven Market Coordination:

By sharing forecast results with commodity exchange platforms, exporters and traders can better anticipate crop availability, improving pricing strategies and minimizing market volatility.

5. Gradual Digitization and Documentation:

Efforts should be made to digitize historical import/export records across all silo facilities in Sudan, which would serve as a robust foundation for nationwide forecasting and supply chain optimization.

Conclusion:

This research demonstrates that applying Artificial Intelligence tools—specifically data-driven forecasting using Power BI and XGBoost—can contribute meaningfully to improving storage management and agricultural planning. The integration of AI into import and export forecasting enables stakeholders to anticipate crop flow patterns more accurately, align storage resources with seasonal peaks, and make informed decisions to minimize post-harvest losses.

However, the effectiveness of such an approach depends on sustained investments in digital infrastructure, training of technical staff, and secure data management practices. Therefore, the study recommends the development of a practical framework that combines AI-based forecasting with real-time data collection through IoT sensors, embedded within national agricultural information systems to enhance responsiveness and operational efficiency.

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Appendix A: Pseudocode for XGBoost Forecasting Model

```python
# Pseudocode for Forecasting Agricultural Trade Volumes using XGBoost in Python

# Step 1: Import necessary libraries
import pandas as pd
import xgboost as xgb
from sklearn.model_selection import train_test_split
from sklearn.metrics import mean_squared_error, mean_absolute_error, r2_score

# Step 2: Load and preprocess the dataset
data = pd.read_csv("grain_trade_data.csv")
data["Month"] = pd.to_datetime(data["Month"])
data["Month_Num"] = data["Month"].dt.month
data["Year"] = data["Month"].dt.year

# Step 3: Define features and target
features = ["Month_Num", "Year", "Crop_Type_Encoded", "Prev_Month_Quantity"]
target = "Export_Quantity"  # or "Import_Quantity"

# Step 4: Split the dataset (2020–2023 for training, 2024 for testing)
train = data[data["Year"] <= 2023]
test = data[data["Year"] == 2024]

X_train = train[features]
y_train = train[target]
X_test = test[features]
y_test = test[target]

# Step 5: Train the XGBoost model
model = xgb.XGBRegressor(objective='reg:squarederror', n_estimators=100, learning_rate=0.1)
model.fit(X_train, y_train)

# Step 6: Generate predictions and evaluate
predictions = model.predict(X_test)

rmse = mean_squared_error(y_test, predictions, squared=False)
mae = mean_absolute_error(y_test, predictions)
r2 = r2_score(y_test, predictions)

# Step 7: Print results
print("RMSE:", rmse)
print("MAE:", mae)
print("R² Score:", r2)
```

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FULL PAPER

Towards the implementation of the Concept Checking Questions (CCQs) in EFL Classes at Qassim University, KSA

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Abstract

This study examines the effectiveness of concept-checking questions (CCQs) in measuring students' understanding of concepts covered in EFL lessons in comparison to more conventional inquiries like "Do you understand?". In other words, the study investigates how EFL students confirm their understanding of any given topic and explicitly declare that when asked throughout the lecture or feedback stages. Besides, it endeavours to examine the effectiveness of such questions in EFL classes. The necessary data collection was conducted via the qualitative method to display the subjects' attitudes towards the questionnaire items. Eventually, the researcher distributed a questionnaire of (15) items to a study sample of (38) participants to determine their viewpoints on the effectiveness of the two questions mentioned. The data analyzed showed that among the most effective views on the effectiveness of the questions in EFL classes, (CCQs) are preferred compared to "Do you understand? The findings also affirm that some students may feel shy to explicitly declare that they do not understand a certain point when asked, "Do you know?

Finally, such questions lack meaningful communication compared to (CCQs), which are more productive and can effectively foster communication in EFL classes.

Key words
Concept Checking Questions (CCQS), “Do you understand?’, effectiveness, EFL, unproductive

1. Introduction

The vast literature shows that although the ability to create questions for educational objectives is obvious, teachers need much practice in this area. Teachers would especially benefit from mastering question tactics Brown, (2007). According to Ur, (2012), it is also obvious that questioning and the elements that increase or decrease its efficacy are critical. Ur, (2012) refers to the renowned EFL teacher-trainer to highlight this effective role to observe that students ask a lot. Furthermore, Hayano, (2013) found that questions are a typical and essential tool for good communication Hayano, (2013). Learners feel compelled to respond "yes" when asked such non-negotiable questions, but how can we ensure they comprehend the material? Just answering "yes" will allow anyone to sidestep this requirement. It is more typical for adult learners, who fear being wrong to respond positively. Thus, extensive research has been done on the questions' purpose and language structure e.g., Dayal, (2016); Hayano, (2013); Lee, (2008); Ruiter, (2012). According to White & Lightbown, (1984), most of the questions that EFL teachers ask are display questions. These inquiries require short and mechanical responses, need more meaningful communication, and restrict turn-taking, making it more difficult to negotiate meaning Wright, (2016). These questions could be more productive and foster communication (Thornbury, 2000). Among the advantages of (CCQs) in EFL classes is creating a strong rapport between the instructor and the students and between the students themselves. In other words, there is an increase in the number of people who get a chance to speak, ultimately resulting in interactional restructuring (Brock, 1986). Additionally, language teachers have used Concept Checking Questions to boost student performance. Teachers use CCQs to test students' comprehension and determine if they need further practice (Workman, 2005).

1.1 Statement of the study problem

The vital aim concerning questions in the EFL context is to create strong rapport and enhance effective communication between students and teachers as well as between the students themselves. Such an objective is achievable when teachers ask authentic, thought-provoking, open-ended questions relevant to the topics under instruction and like the questions posed in real-life scenarios. Thus, it seems less meaningful to say Do you understand? in attempting to determine whether EFL students grasp the concepts under instruction; however, (CCQs), are certainly productive and more meaningful communication tools compared to some traditional questions such as Do you understand and thus, concept checking questions can effectively foster communication in EFL classes. Furthermore, (CCQs) are proven to create lengthier and more syntactically complex responses that are significant to the learners. Such debatable issues make question-asking extremely important, and thus, teachers should learn how to state them in EFL classes clearly. The extensive literature review shows that (CCQs) enhances the student's overall understanding and increase the level of interaction and rapport between the instructor and students, which is vital in effective learning processes. On the contrary, questions such as "Do you understand? may not precisely determine to what extent students grasp the concepts that are being taught, as some students may simply affirm their understanding, particularly the shy ones who find it difficult to state their ideas clearly in English in front of their peers.

1.2 The study questions

This study tries to look at the effectiveness of using (CCQs) versus do you understand questions in EFL classes. In other words, the study intends to seek answers to the following questions to rationalize the goals mentioned above:

1. To what extent (CCQs) are productive and can easily foster communication in EFL classes?

2. To what extent do teachers need a lot of practice in using appropriate negotiable questions rather than non-negotiable ones?

2. Literature Review

The literature review shows various techniques regarding question taking and how it is widely used within the EFL classroom settings, even though some researchers have also reflected on some bad questions, particularly when they are poorly phrased or have little value. However, studies show there can always be a right answer because they are all a product of the learning process. Brualdi Timmins, (1998) pointed out that this phenomenon is not controversial when commenting on the vital role of question-asking. It is also found that the hunt for universals across the EFL spectrum can be difficult, given the current state of chaos. What do all educators do? The question itself is one response to the query. Instructors frequently ask questions because it is the most popular and widely used activation strategy in the classroom. Although this is not controversial, there is a risk in taking questioning for granted and believing that just because something is widespread, it must be beneficial for students and simple for teachers to implement. Hence, there can never be a bad answer because they are all a product of the learning process, but there might be a bad question because it is poorly phrased or has little value, according to Brualdi Timmins, (1998). The role of questioning and the elements that increase or decrease its efficacy are significant. Ur, (2012) refers to the renowned EFL teacher-trainer to highlight this effective role to observe that students ask a lot. The following three objectives are set forth:

1. To quantify and validate the use of questions as a fundamental teaching tool.
2. To elicit from teachers a classification of their questions by perceived pedagogical function.
3. To compare and analyze teachers' varieties.

The first goal is the most evident because it is a legitimate research topic to count the number of times a mass phenomenon is documented. The second and third goals address the trickier subject of why inquiry is so prevalent and how various patterns and motivations might be explained. It is also found that no studies contest the importance of questioning as a teaching strategy. In an inquiry into whether instructors make a difference, Hattie, (2003) provides a great volume of evidence by synthesizing around 500,000 pieces of research. The study reveals that the questioning rates are highly shown among the many variables that affect learning, with an effect size of 0.41 (feedback tops the list). This extensive data collection effort would seem to include questioning as a tool in the toolbox of expert teachers skilled in establishing the best learning environments in the classrooms", Hattie, (2003) even though there are problems with synthetics.

Studies also show that questions are one of the main areas of semantics research (Dayal, 2016). Furthermore, questions are a typical and essential tool for good communication (Hayano, 2013). Thus, extensive research has been done on the questions' purpose and language structure (e.g., Dayal, (2016); Hayano, (2013); Lee, (2008); Ruiter, (2012). Besides, the definition of an inquiry is additionally stated as

an utterance that seeks a verbal or bodily response, as stated by Hayano (2013); however, due to the difficulty of defining questions and the potential for context-based identification, this definition does not cover all questions that could be asked. Moreover, Dayal (2016) asserts that queries' pragmatic, syntactic, semantic, and prosodic characteristics can be examined. Therefore, indicating which qualities are considered when recognizing a question is crucial.

Similarly, Hayano (2013) contends that inquiries have distinctive grammatical and prosodic characteristics. These formal characteristics, however, need to be revised to identify queries accurately. On the other hand, if questions are only categorized according to traditional linguistic elements, numerous utterances that serve the same purpose as questions may be included. Likewise, determining whether a word is a question depends heavily on context. At the same time, epistemics also has an impact, as stated by (Hayano, 2013). Questions blatantly imply that the target is knowledgeable; in particular, referential inquiries show that the questioner is focused on the epistemic inequity between himself or herself and the target is more familiar. Based on the participants' differing levels of epistemic acuity (the speaker/questioner and the recipient), it is sometimes possible to recognize a speech as a question without certain formal characteristics. Likewise, questions can be categorized according to the purpose they serve. Although requesting information might be viewed as the question's prototype, it also serves other purposes. Questions have multiple functions and serve various positions, including providing presuppositions and initiating subjects in monologues (Ruiter, 2012). As a result, concentrating on a question's role is the best method to avoid tightly defining it, as Ruiter (2012) suggested. Although the concept of a question is more complex than it may seem, several question types are obvious. For instance, (WH) questions and yes/no questions (Y/N) or questions that require a yes or no response, display and referential questions, as well as open and closed questions, are some of the most popular categories (Ruiter, 2012). The other question categories are distinguished in terms of the anticipated response, except for wh- questions or questions starting with wh-words such as (why, what, who, etc.), which are defined based on their linguistic structure. Among the question categories are display questions, defined as the ones when the questioner already knows the solution. As a result, the relationship between question and answer is highlighted because the answer completes the question-act (Dayal, 2016).

In attempting to highlight the role of questions in classroom interaction, the researcher conducted an extensive literature review to conclude that Nunan (1987a) suggested that the typical pattern of interaction that takes place in a classroom serves no communication purpose. This paradigm was developed by Sinclair and Coulthard (1975, 1992), and it examines the spoken discourse that occurs in the classroom, which is distinct from other forms of spoken discourse in the sense that it is quite heavily and formally structured, and that it is led by one dominant individual: the instructor. This model places primary emphasis on the conversations that take place between the individual pupils and the instructor. Additionally, the discovered speech acts in the classroom were defined in terms of their roles, which led to categorizing the speech acts. On the other hand, the Transaction Model, the Exchange Model, the Move Model, and the Act Model are the four components of the Discourse Model. The lesson component, present in the original model but has since been removed, was also one of the five components.

The literature review also shows that the classroom discourse is impacted by the instructor asking many display questions Long & Sato, (1983), which request is already known information. This fundamental exchange structure is believed to be non-communicative and has received widespread criticism, as stated

by Wells (1999) and Ohta (2001). According to Lightbown and White (1984), most of the questions EFL teachers ask are display questions. These inquiries require short and mechanical responses, need more meaningful communication, and restrict turn-taking, making it more difficult to negotiate meaning (Wright, 2016). These questions could be more productive and foster communication (Thornbury, 2000). The following section examines a contrasting form of interaction and various (CCQs) frequently occurring in tandem. In TESOL or CELTA training, one of the first skills aspiring English as a second language teachers pick up is offering questions that test students' comprehension of a topic. These questions are known as concept checking questions, or (CCQs). Although countless teachers are well-prepared and knowledgeable enough with various question asking techniques, it seems logical to say that some find it difficult to administer (CCQs) in EFL classroom context, and instead revert to old practices and unclean habits, such as asking students, "Do you understand?" This question may not affirm students' understanding even when they say yes simply because some shy ones may confirm their knowledge to avoid putting themselves in critical situations when declaring that they do not understand the point raised in the classroom. With such inviolable questions, learners feel obliged to answer "yes,", but how do we know they understand? Anyone can get around this by just answering "yes." Just answering questions affirmatively is more common with adult learners who fear being wrong. However, it is not uncommon for younger learners, too, who could be tired, unwilling to answer the question or the fear of being teased by their peers for giving the wrong answer.

Descending from the research's experience as CELTA- certified teachers, teachers who are more effective in their lessons and who, as a result, produce better outcomes for their students are the ones who make consistent use of concept check questions in EFL classrooms. Among the advantages of CCQs in EFL classes is creating a strong rapport between the instructor and the students and between the students. In other words, there is an increase in the number of people who get a chance to speak, ultimately resulting in interactional restructuring (Brock, 1986, Thornbury and Slade, 2006; 15 Lei, 2009)

What exactly does the term "concept check question" mean, however? ESL instructors use a strategy known as concept checking to determine whether their pupils have grasped what has been presented in a manner that is reasonable and brief and does not involve the query "Do you understand?"

Mercer and Dawes (2008) state that teachers should strive to ask authentic, thought-provoking, open-ended questions relevant to the students being taught and like the kinds of questions posed in real-life scenarios. These kinds of (CCQs) are proven to create lengthier and more syntactically complex responses that are significant to the learners, asking more referential inquiries Long & Sato, (1983) to which the questioner does not know the answer — could boost stimulation.

This method of checking understanding enables educators to determine whether students have fully comprehended the material, whether the teachers' instructions have been communicated clearly, and whether any aspects of the material still need to be clarified. Even while the idea behind concept questions is simple, it takes some time to answer them. Nonetheless, just like anything else, it will become simpler the more effort you put into it. Research suggests that referential questions have some of the same characteristics of authenticity as other types of queries since they result in longer dialogues and serve communication functions. However, the authenticity of their interactions inside the classroom, as opposed to those outside the school, should be evaluated (Cullen, 1998).

Additionally, several researchers Wu, (1993); Shomoossi, (2004); David, (2007) display those questions, as opposed to referential questions, were more effective in getting students involved in meaningful conversation than referential questions that facilitate students' production. It is also found that "interaction" is an important word about (CCQs), the interaction Hypothesis, and related ideas, such as Comprehensible Input, Comprehensible Output, and Negotiation for Meaning. The interactions between instructors and pupils significantly impact the process of teaching and learning in a classroom context. Hence, many other kinds of classroom interaction were encountered throughout (CELTA).

Nevertheless, the current study was particularly interested in determining the impact of the question-asking between teachers because it is an essential component of every language course. The use of concept-checking questions, which are also referred to as (CCQs), has become an integral component of the (CELTA) training that is provided all over the world. They are utilized to emphasize the core of the meaning of the target language taught throughout a session and to audibly test the student's comprehension of newly introduced vocabulary, grammatical points, communicative functions, or even instructions presented in class.

The reviewed literature also shows the overall effect of concept-checking questions on language skills. For instance. in 2020, Hadi et al. examined how CCQs affect Iraqi pupils' reading. The study revealed that CCQs significantly increased students' reading comprehension. Kargar and Divsar (2019) tested how CCQs affect EFL learners' grammar. A study indicated that CCQs enhanced EFL learners' grammar. Florkowska (2018) examined how CELTA trainers and trainees improved pre-intermediate and advanced learning with CCQs. The study found that most disagreed on whether CCQs were acceptable for different competency levels. Teachers' academic backgrounds, training, experience, and attitudes may cause inconsistency. The study also indicated that referential inquiries, which increase language learning, could mitigate this strategy's detrimental effects. Nugraha (2017) observed that CCQs increase cadet vocabulary, grammar, and reading comprehension. CCQs and UQs affect vocabulary memory and language learners' accuracy, according to Barghi (2014). CCQ intervention enhanced accuracy and lexical acquisition more than non-intervention. The study indicated that CCQs and UQs considerably improved learners' lexicons. A complete CCQ, language skills, and systems literature review demonstrate a research gap. This gap may be attributable to language teachers' recent usage of this technique. Hadi, Al-Khateeb, & Akbar (2020) investigated reading comprehension; Barghi (2014) lexis; Demetgül (2019) language skills and systems; Kargar and Divsar (2019) grammar; Ivanovna (2020) vocabulary and grammar, and Nugraha (2017) reading, vocabulary, CCQs rarely affect linguistic skills and systems. These studies agree on CCQs' value. No study has examined CCQs' motivational impact on EFL learners.

The reviewed literature similarly displays that, conceptually, CCQs promote language learning and motivation. Language acquisition also benefits from motivation. Motivation drives academic success, which can motivate others, according to Dörnyei (2018). Many scholars, including Vu et al. (2022), Dwinalida & Setiaji (2022), and Alamer & Alrabai (2023), have related learning accomplishment to motivation. Inspiration enhances determination, resulting in success and fulfillment.

Table 1.
The questionnaire items from (1-15)

Item no.	The questionnaire items
Q1	I prefer questions such as do you understand?, compared to (CCQS) in EFL classes.
Q2	I sometimes feel shy to confirm that I did not understand a certain point when the teacher asks, "Do you understand?"
Q3	A question such as "Do you understand?" is monotonous and boring in EFL classes.
Q4	I intentionally say yes to the "Do you understand?" questions even when I don't understand the pointed topic to avoid putting myself in a critical situation.
Q5	When learning linguistic courses, I prefer yes, or no questions rather than do you understand ones.
Q6	Teachers regularly ask me, "Do you understand?" when pointing at different stages in EFL classes.
Q7	I find it difficult to say I did not understand some points before my peers during EFL classes when asked, "Do you understand?"
Q8	I prefer simple questions to affirm my overall understanding of the lecture when asked in public.
Q9	I sometimes find myself unaware of a particular point though I confirm my awareness when asked, "Do you understand?"
Q10	(CCQs) motivate reserved pupils to participate in class discussions actively.
Q11	(CCQs) encourage interlanguage communication between EFL instructors and students.
Q12	When highlighting one specific issue in EFL sessions, (CCQs) are effective.
Q13	Simple (CCQs) are used to assess pupils' comprehension of the lessons they have learned.
Q14	(CCQs) help EFL students improve communication skills in online sessions.
Q15	(CCQs) build a solid interaction between instructors and EFL students.

Table 2.
The percentages of the study subjects

Item no.	Percentage					
	Strongly agree	**Agree**	**Undecided**	**Disagree**	**Strongly disagree**	**Standard Deviation**
Q1	39.5	52.6	7.9	0.0	0.0	**6.107**
Q2	31.6	60.5	5.3	2.6	0.0	**5.070**
Q3	26.3	28.9	13.2	15.8	0.0	**1.924**
Q4	60.5	36.8	0.0	2.6	0.0	**2.510**
Q5	60.5	34.2	2.6	0.0	2.6	**2.608**
Q6	0.0	63.2	36.8	0.0	0.0	**10.574**
Q7	52.6	47.4	0.0	0.0	0.0	**15.994**
Q8	52.6	47.4	0.0	0.0	0.0	**9.788**
Q9	65.8	23.7	7.9	2.6	0.0	**10.877**
Q10	52.6	47.4	0.0	0.0	0.0	**7.436**
Q11	63.2	31.6	5.3	0.0	0.0	**10.854**
Q12	44.7	50.0	0.0	0.0	0.0	**10.090**
Q13	47.4	52.6	0.0	0.0	0.0	**8.877**
Q14	50.0	47.4	0.0	0.0	0.0	**9.317**
Q15	57.9	39.5	2.6	0.0	0.0	**10.431**

Table 2. shows the percentages of the study subjects' responses to the entire questionnaire items (1-15) in conjunction with (standard deviation) approaching figure (2), which suggests that the participants' overall responses on the entire items are very close to the first two points of the five-point Likert-type scale (strongly agree and agree).

Table 3.
The frequencies of the study subjects

Item no.	Frequencies				
	Strongly agree	Agree	Undecided	Disagree	Strongly disagree
Q1	15	20	3	0	0
Q2	12	23	2	1	0
Q3	10	11	5	6	6
Q4	23	14	0	1	0
Q5	23	13	1	0	1
Q6	0	24	14	0	0
Q7	18	20	0	0	0
Q8	20	18	0	0	0
Q9	25	9	3	1	0
Q10	20	18	0	0	0
Q11	24	12	2	0	0
Q12	17	19	2	0	0
Q13	18	20	0	0	0
Q14	19	18	0	0	0
Q15	22	15	1	0	0

Table 3. displays the frequencies of the study subjects' responses to the entire questionnaire items (1-15), and as clearly shown in the table, the height frequencies of the participants' responses centered on the first two points of the five-point Likert-type scale (strongly agree and agree).

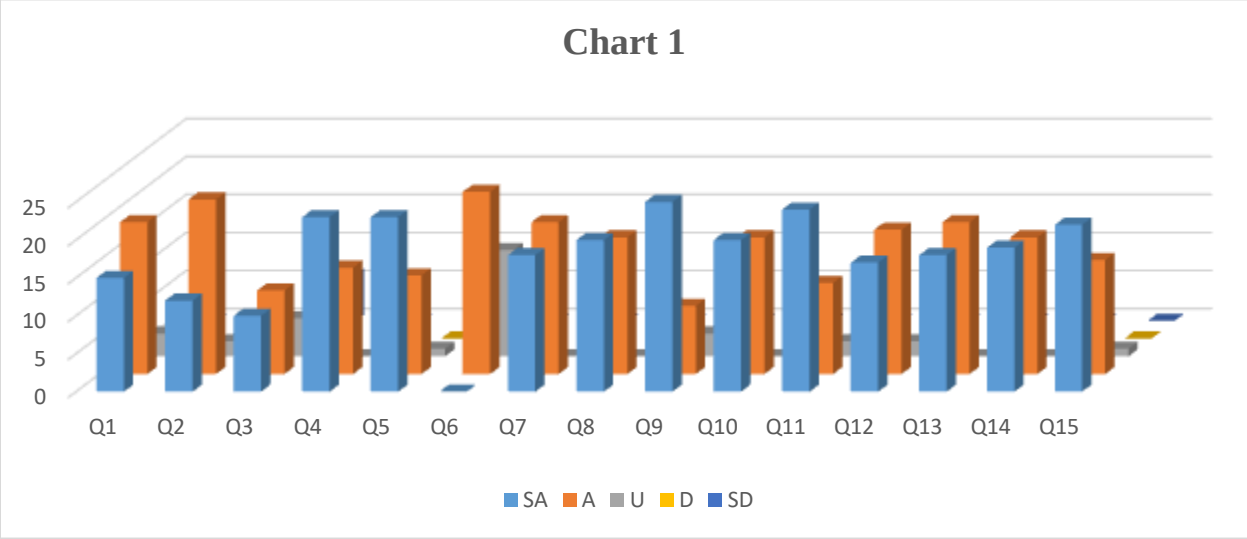

Chart 1.

The study findings

The attached chart summarizes the most important findings based on the study subjects' responses on the entire questionnaire items (1-15) concerning the five-point Likert-type scale ranging from strongly agree agree , agree , undecided , disagree , and strongly disagree

3. Materials and Methods

In this section, the researcher will formulate how data has been collected, analysed, and distributed to the study samples to display the most important findings calculated by the current study.

3.1. Research design

The data collection process is undertaken via quantitative research methodology. A sample of EFL students was randomly selected from Qassim University to show their viewpoints on the questionnaire.

3.2. Participants

The research community includes Saudi EFL students, actually (38) have participated in the current study by responding to the questionnaire items.

3.3. Instrument

The researcher initially designed and distributed a questionnaire using a five-point Likert-type scale with options ranging from strongly agree to disagree strongly. Three experts assessed the questionnaire items and made minor structural adjustments before distributing them to the study subjects. Each questionnaire item required a response measuring the participants' attitudes toward the entire item. Finally, after the data were collected and analyzed, the most important results were thematically analyzed and displayed:

4. Results and Discussion

As shown above, the present study aims to investigate how concept-checking questions (CCQs), as well as traditional questions such as Do you understand, may truly determine in what ways EFL students confirm their understanding of any given topic and explicitly declare that throughout the lecture or during the feedback stages. It then makes sense to ask questions regardless of the types of questions being asked. It is reported that Afitska (2016) provides a project that includes watching science classes as a bad example of

classes in which teachers did not ask students any questions, and as a result, the author states that such classes had the worst learning outcomes.

With reference to the percentage, frequency tables as well as the chart, we can summarize the most important findings in the following points: When responding to the first item, ***"I prefer questions such as Do you understand, compared to (CCQs) in EFL classes."*** The data demonstrates an average percentage of (40%) of participants who support the concept of questionnaire items and think that they prefer questions such as Do you understand compared to (CCQs) in EFL classes. It seems as if these opinions are descending from the fact that EFL teachers themselves may be unaware of the effectiveness of (CCQs) simply because these questions are not widely common in traditional teaching contexts and approaches such as grammar - the translation method, which is still foremost in EFL classes in Saudi Arabia. Except for those teachers who happen to worldwide courses such as CELTA and DELTA, the researcher thinks that teachers need to be trained on the importance of these questions and their usefulness in EFL classes taking into consideration that they are not necessarily established in the form of questions. This finding is affirmed by Thornbury, S. and Watkins, P. (2007), who found that CCQs don't have to be questionnaires; they could, for instance, be gestures, phrases that need to be completed, or images, but their goal is to test knowledge. They also hope to encourage inductive reasoning by pushing students to consider unfamiliar language and develop inferences about it.

Regarding the second questionnaire item, ***"I sometimes feel shy to confirm that I did not understand a certain point when the teacher asks, "Do you understand?"***

The table indicated a percentage of (52%) who reinforced the reality of the item. Consequently, the study subjects tended to agree with the questionnaire item, which displays the correlation between shyness and the subjects' affirmation of understanding certain questions when asked in public. That is what makes us think that it is essential for teachers to implement (CCQs) in EFL classes to measure students' overall understanding in a way that addresses the shy ones, and thus seems difficult to say that assessment can easily take place by focusing on those who intentionally say "Yes" to questions such as Do you understand, to avoid critical situations in front of their peers. The point is affirmed by many participants (93 %) showing their approval of the questionnaire item, ***"I intentionally say yes to the "Do you understand?"*** questions even when I don't understand the pointed topic to avoid putting myself in a critical situation."

The study also shows that a large number of participants (63%) agreed that teachers regularly raise Do you understand the question in attempting to check their awareness of certain points in EFL classes, and this assured the dominance of some traditional teaching approaches like grammar – translation method in EFL classes over modern teaching methods such as the communicative approach as represented by the following questionnaire item, "***Teachers regularly ask me, "Do you understand?" when pointing to different stages in EFL classes."***

Furthermore, the tables display a confirmation of (60%) of the subjects who prefer yes, or no questions rather than Do you understand when learning linguistic courses, their approval is clearly stated when referring to the subsequent questionnaire item, "***When learning linguistic courses, I prefer yes, or no questions rather than do you understand ones."***

Likewise, the questionnaire illustrates a considerable number of panelists, almost a ratio approaching (65%) agreeing that they sometimes find themselves unaware of some points. However, they confirm their awareness when asked, "Do you understand?" Besides, the fifth item illustrates a considerable number of

panelists, almost (63%) supportive of the fact that (CCQs) facilitate communication between EFL instructors and students. This strong rapport increases the overall learning skills and reinforces EFL students' self-confidence, mainly in speaking sessions.

The study also shows that nearly (98 %) of the subjects believe that raising simple questions during EFL classes facilitates their understanding of lectures, as illustrated by the following questionnaire point, ***"I prefer simple questions to affirm my overall understanding of the lecture when asked in public."***

When asked about the impact of the concept checking questions in improving EFL students' communication skills, many of the subjects (94%) of the participants tended towards agreeing with the next questionnaire item, "(CCQs) help EFL students improve communication skills in online sessions." Additionally, the same percentage of the subjects think that concept-checking questions can highlight some points in classes. This viewpoint is raised by the subsequent questionnaire object, ***"When highlighting one specific issue in EFL sessions, (CCQs) are effective."*** It is also stated that such questions can also motivate students to effectively participate in group discussions as (99%) of participants found them different when referring to succeeding questionnaire item, ***"(CCQs) motivated pupils to participate in class discussions actively."***

The data displayed similarly reveals the effectiveness of (CCQs) compared to some traditional questions, such as Do you understand? This argument is affirmed by (54%) of the panelists, who believe that such questions are monotonous and boring in the EFL classroom context. That is why (99%) of the study subjects, on the other hand, were in favour of the fact that concept-checking questions are more efficient in assessing students' awareness as stated by the subsequent questionnaire point, ***"(CCQs) are used to assess pupils' comprehension of the lessons they have learned."*** Finally, the last questionnaire item illustrates that "(CCQs) build a solid interaction between instructors and EFL students," the point which is confirmed by almost (99%) study subjects. This essence is confirmed by Florkowska K. (2018), who mentioned that concept-checking questions are used to vocally assess students' comprehension of new vocabulary, grammar concepts, communicative functions, or even directions given in class, as well as to underline the substance of the meaning of the target language taught during a lesson.

5. Conclusion

In conclusion, the study displays the fact that "(CCQs) are found as more effective in EFL classes compared to "do you understand?" because of several reasons, among which is that concept checking questions are effectively used to assess pupils' comprehension of the lessons they have learned. As displayed by the last questionnaire item, (CCQs) also build a solid interaction between instructors and EFL students, a point which is confirmed by almost (99%) of study subjects. Thus, avoiding you understand is vital in EFL classes as the findings show that shy students may intentionally say yes, even when they do not understand a certain point to prevent critical situations in front of their peers. This point is clearly stated when (93 %) of panelists show their approval with the questionnaire item *"I intentionally say yes to the "Do you understand?"* questions even when they did not understand the intended pointed topic.

5.1. Recommendations

1. Enhancing "(CCQs) in EFL classes is vital as they are more effective in creating a real class interaction.

2. It is important to avoid you understanding questions in EFL classes as shy students may not truly answer them to avoid any critical situation in front of their peers.

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Appendixes

1. **The questionnaire items**

Item no.	The questionnaire items
Q1	I prefer questions such as do you understand?, compared to (CCQS) in EFL classes
Q2	I sometimes feel shy to confirm that I did not understand a certain point when the teacher asks, "Do you understand?"
Q3	A question such as "Do you understand?" is monotonous and boring in EFL classes.
Q4	I intentionally say yes to the "Do you understand?" questions even when I don't understand the pointed topic to avoid putting myself in a critical situation.
Q5	When learning linguistic courses, I prefer yes, or no questions rather than do you understand ones.
Q6	Teachers regularly ask me, "Do you understand?" when pointing at different stages in EFL classes.
Q7	I find it difficult to say I did not understand some points before my peers during EFL classes when asked, "Do you understand?"
Q8	I prefer simple questions to affirm my overall understanding of the lecture when asked in public.
Q9	I sometimes find myself unaware of a particular point though I confirm my awareness when asked, "Do you understand?"
Q10	(CCQs) motivate reserved pupils to participate in class discussions actively.
Q11	(CCQs) encourage interlanguage communication between EFL instructors and students.
Q12	When highlighting one specific issue in EFL sessions, (CCQs) are effective.
Q13	Simple (CCQs) are used to assess pupils' comprehension of the lessons they have learned.
Q14	(CCQs) help EFL students improve communication skills in online sessions.
Q15	(CCQs) build a solid interaction between instructors and EFL students.

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FULL PAPER

Digital Etiquette in Academic Communication Principles, Challenges, and Impact on Student Engagement

Prepared

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Abstract:

This paper aims to highlight the concept of digital etiquette and its significance in online education environments by exploring the behavioral and communicative principles that ensure mutual respect between learners and instructors within digital platforms. It discusses the challenges associated with digital interaction, including the absence of nonverbal cues, cultural variation, and the generational gap between digital natives and digital immigrants. The paper is grounded in Social Presence Theory, which illustrates how appropriate digital behavior fosters human connection and a sense of belonging in virtual classrooms.

The study concludes that promoting digital etiquette through institutional policies and training programs enhances the quality of learning, reduces negative behaviors, and supports more effective and inclusive digital educational environments.

Keywords:

Digital Etiquette, Online Education, Netiquette, Student Engagement, Digital Citizenship, Social Presence Theory

1. Introduction to Digital Etiquette

- In today's digital world, etiquette is still important but is evolving to adapt to new ways of communication - Digital etiquette involves understanding manners, norms, morals, and legal aspects of digital interactions - It demands its own distinct set of rules different from traditional face-to-face interactions - Established digital etiquette norms have shifted and should be regularly revisited and questioned - Educators must establish inclusive learning environments with communication and collaboration practices that suit their community's norms - Communication is now heavily intertwined with technology, impacting how people communicate and teach - Tools and platforms used for communication also influence the norms and standards for communication - For example, the ability to edit and revise text can impact how people respond to others' words - Simple elements like subject lines and bullet points in emails have larger implications for organization and logic - It is important to consider how digital tools construct or inform communication practices - It's important to consider how the tools we use impact the interactions we facilitate - We must also consider how we communicate these choices to others - It's crucial to think about how our educational or work community navigates digital territory issues - Reflect on the choices made regarding the relationship between the tools we use and the interactions we facilitate. (Al-Rahmi et al.2020)

1.1. Definition and Importance

Digital etiquette online is a vast and intricate realm, governed by a set of rules distinct from those dictating offline communication. Digital etiquette encompasses the principles and guidelines one ought to adhere to when engaging with digital media platforms, be it the vast expanse of the internet or the realm of social media. These rules extend to various aspects of digital interaction, ranging from online conversations in chat rooms to the exchange of personal messages. It is only logical to recognize that practicing politeness and demonstrating good manners in this new virtual world is merely an extension of one's inherent character. If a person possesses a disposition of courtesy and politeness in their everyday life, it is highly probable that these qualities will seamlessly translate into their online interactions. By fostering a culture of good netiquette within online learning environments, participants are likely to engage in more meaningful and productive conversations, benefiting from enhanced collaborative efforts (Culpeper & Tantucci, 2021). The principles governing digital etiquette not only serve as a compass but also as a roadmap for individuals navigating the vast and ever-evolving digital landscape. As technology continues to advance, it becomes increasingly important for individuals to navigate the digital realm with grace and empathy. Understanding the intricacies of digital etiquette is essential for fostering positive and constructive online environments. By embracing digital etiquette, individuals can promote inclusivity, respect, and open-mindedness in their interactions. In this new era of digital connectivity, it is crucial to recognize the impact of our words and actions online. Every message we send, every comment we make, and every post we share contributes to the overall digital atmosphere. Therefore, it is of utmost importance to engage in thoughtful and considerate online communication. This means refraining from harmful or offensive language, actively listening to others' perspectives, and treating everyone with respect and dignity. (Zhao et al., 2020)Moreover, digital etiquette extends beyond individual interactions and encompasses the broader social implications of our online behavior. It calls for responsible online citizenship, which includes respecting others' privacy, verifying facts before sharing information, and

promoting digital literacy. Being mindful of our online presence and the repercussions of our actions can help create a safer and more harmonious digital society. In conclusion, digital etiquette is a fundamental aspect of our online interactions. It serves as a guide for navigating the complexities of the digital world, promoting respectful and meaningful engagement. By practicing digital etiquette and embracing the principles it encompasses, individuals can contribute to a positive and inclusive online culture. Let us strive to be conscientious digital citizens, fostering an environment where empathy, understanding, and collaboration thrive. (Blau et al., 2020)

Whether you're using the telephone, email, chat, blog, or social networking sites to communicate with friends, family members, or classmates, there are certain behaviors one should always avoid in order to keep it respectful. It's a way to practice good digital citizenship. In many cases, polite online behavior encourages people to engage in pleasant conversations and thoughtful interactions. Setting an example of politeness and digital etiquette can foster collaboration and a greater sense of community among users. It gives a general understanding to everyone of what to expect from the users in a virtual environment. This is sometimes known as common courtesy, which is expected in all social online environments. Students today are equipped to create a professional netizen presence both inside and outside of class and also encourage a positive culture of digital etiquette among their peers. By emphasizing the importance of treating others with respect and promoting positive interactions, students can contribute to a more inclusive and harmonious online community. Moreover, developing a strong sense of digital etiquette can be beneficial not only academically but also in the professional world. Employers value individuals who can communicate effectively and respectfully in digital spaces, and being mindful of one's online behavior can help cultivate a positive personal brand. As technology continues to evolve and shape our lives, honing our digital citizenship skills becomes increasingly important. By embracing the principles of digital etiquette, we can create safer and more respectful online environments for everyone. Let us strive to be responsible digital citizens and make a positive impact in the digital realm (Wadden et al.2021) (Lee & Lee, 2022).

2. Online Education: A Growing Trend

While once considered a mere extension of face-to-face learning, online education has fast become a strategic and indispensable component of learning for numerous institutions of higher education. Recent statistics show that online education continues to grow at an astonishing rate, surpassing all expectations. For example, a staggering 1 in 6 students is now enrolled in at least one online course, highlighting the undeniable shift towards virtual education. Furthermore, it is eye-opening to note that more than 6.7 million Americans actively participated in online courses in the year 2013 alone, signifying a paradigm shift in the realm of education. Moreover, an impressive 77% of academic professionals firmly believe that online education is at least equal to, if not superior to, face-to-face instruction, validating its significance and efficacy. (Castelli & Sarvary, 2021) The upgraded Campus Computing Survey, which meticulously analyzes the current state of education technology, has highlighted a pivotal change in regards to online learning. The report characterizes online learning as a strategic investment, emphasizing the indispensable role it plays in shaping the future of education. Notably, the field of online education has matured, evolving with remarkable speed. The technologies, tools, and services required for online education have now become readily available and standardized, paving the way for its imminent rise to prominence. As one insightful researcher aptly stated, "We're ideal for primetime." (Chen et al., 2020)

Several fundamental factors underpin the exponential growth of online education. Technological advancements have revolutionized the delivery software, rendering it more seamless, efficient, and user-friendly. Additionally, improved broadband connectivity and an array of delivery options have further propelled the expansion of online education, offering students unparalleled accessibility and convenience. Institutions have embraced the capacity for alternative means of administration, allowing for greater adaptability and customization to meet the ever-changing educational needs of both traditional and non-traditional learners. Furthermore, the increased competition provided through worldwide educational offerings has created a stimulating environment, fostering innovation and driving improvements in online education. (Adedoyin & Soykan, 2023)At the student end, the demands of nontraditional students for education without limitations of place or time have decisively influenced the surge of online learning. This phenomenon can be traced back to the late 1970s when distance education began to gain traction. As the new World Wide Web and social media gained momentum, distance education has undergone a significant transformation, becoming increasingly social and interactive. The advent of various social media tools has enabled campuses to connect with students effortlessly, creating a seamless, interconnected learning experience. This trend shows no signs of slowing down; on the contrary, it continues to expand rapidly, drawing together students and educators in a vibrant virtual community. (Xie et al.2020)In conclusion, online education has transcended its initial perception as a mere extension of traditional learning. It has emerged as an indispensable and pivotal component of higher education, shaping the way learning is delivered and experienced. The exponential growth of online education can be attributed to a multitude of driving forces, including technological advancements, improved connectivity, institutional adaptability, and the changing demands and expectations of students. As we embrace the transformative power of online education, it is essential to recognize its immense potential in revolutionizing the future of learning, enabling students to access education anytime, anywhere, and empowering them to reach their full potential.

2.1. Navigating Benefits, Challenges, and Critical Gaps

The ease of digital communications, while offering significant benefits, has simultaneously increased their susceptibility to misuse, thereby necessitating clear digital etiquette guidelines, commonly referred to as 'netiquette.' Online education epitomizes this duality by presenting substantial opportunities and notable challenges that underscore the importance of digital etiquette. Among its primary benefits is the flexibility afforded to learners, allowing access to educational materials across various formats and timeframes suitable to diverse learning styles and personal schedules (Esterhazy et al., 2021). However, digital etiquette in these educational contexts faces multiple complexities and critical gaps. Cultural variations in norms regarding politeness, respect, and communication styles frequently cause misunderstandings among users from differing backgrounds (Gunawardena et al., 2009). Additionally, generational differences contribute significantly to disparities in digital communication behaviors; digital natives often prefer informal, rapid interactions, while digital immigrants may favor formal and structured communication, leading to friction or confusion in educational settings (Prensky, 2001). The rapid advancement and emergence of new digital platforms further complicate the establishment and standardization of etiquette guidelines, perpetuating ongoing gaps in adherence and understanding (Ribble & Park, 2022). Compounding these issues is the absence of structured digital etiquette training

programs, causing reliance on informal and inconsistent learning methods that can unintentionally encourage inappropriate online behaviors. Addressing these identified challenges comprehensively is vital for cultivating inclusive, respectful, and effective digital communication environments in education (Clark & Mayer, 2023; Ahmed et al, 2024).

3. Understanding Digital Etiquette in the Context of Online Education

Digital Etiquette and Its Role in Online Education: Nurturing Courtesy in the Virtual Classroom In today's digital age, where online education is rapidly gaining popularity, it is essential to acknowledge the significance of digital etiquette. With e-learning taking the forefront, it becomes crucial to foster a sense of courtesy and respect within the virtual classroom. Digital etiquette plays a pivotal role in creating a harmonious and productive online learning environment, ensuring that all participants can fully benefit from this innovative approach to education. Embracing digital etiquette entails understanding and adhering to a set of guidelines and practices specifically tailored for the online realm. Just as in traditional educational settings, respectful and considerate behavior is essential for a smooth learning experience. However, the digital landscape presents a unique set of challenges and demands particular attention to ensure a positive and constructive virtual classroom. (Hignasari & Wijaya, 2020) Firstly, one must practice active listening in online education. This involves giving undivided attention to fellow participants, instructors, and course material. Additionally, utilizing appropriate language and tone when communicating digitally is of utmost importance. The absence of nonverbal cues in online interactions renders written language as the primary mode of communication, making it crucial to be mindful of word choice, tone, and context. Another key aspect of digital etiquette is maintaining professionalism within the virtual classroom. This includes refraining from engaging in disruptive behaviors such as side conversations, multitasking, or sharing irrelevant content. Encouraging collaborative discussions, respecting differing opinions, and recognizing the value of diverse perspectives are also vital to foster a supportive learning environment. (Neuwirth et al.2021) Online education does not exempt individuals from the social rules of engagement. Respecting privacy and confidentiality, obtaining necessary permissions, and acknowledging intellectual property rights are pillars of digital etiquette. Furthermore, being mindful of one's online presence and portraying oneself in a respectful and responsible manner is crucial for building meaningful connections in the online learning community. Digital etiquette is not solely the responsibility of students—the role of instructors and educational institutions is vital as well. Instructors must lead by example, effectively communicate expectations, and provide guidance on the dos and don'ts of online interactions. Similarly, institutions must establish clear policies and guidelines regarding digital etiquette, ensuring a consistent and supportive learning environment for all participants. (O'Keefe et al., 2020) (Bender, 2023) (Zhou et al., 2020) In conclusion, the importance of digital etiquette in online education cannot be overlooked. As this mode of learning continues to expand and evolve, it is crucial for each participant, be it a student or an instructor, to embrace and uphold digital etiquette principles. By nurturing courtesy, respect, and professionalism within the virtual classroom, we empower ourselves and others to engage fully in the transformative world of online education.

Understanding the importance of digital etiquette as it applies to online education cannot be overstated. Etiquette, after all, serves as established principles that ensure we interact with others in a polite, considerate, respectful, and inclusive manner. These principles have the potential to positively shape and

nurture interactions between students and instructors. They accomplish this by reminding us to be attentive to the feelings and experiences of others, especially in virtual forums that present challenges and distances in confirming tone and intention. For example, etiquette asks us to consider the talents and perspectives of others when we are working as part of a collective in an online chat. Even if what they say doesn't align with your own opinions or perspectives, and even if you strongly disagree, the rules of etiquette suggest that you should avoid disparaging, rude, or disrespectful comments that would serve to alienate that individual online. (Ribble & Park, 2022)

Online educational environments should resonate with the principles of digital etiquette. They must show respect by acknowledging that diverse perspectives of co-learners and others in the virtual commons have value. To accomplish these goals, digital etiquette should be at the core of the mission. Polite, respectful, and thoughtful dialogue must be made part of the lexicon here - a system of mutual kindness, trust, and respect that encourages participation, creation, and innovation in online learning communities. The following scenarios illustrate the ways in which the above three principles play out in eLearning: in email and online discussions, during teleconferencing sessions, and even in conferencing software or webinars. In the end, the principles of digital etiquette can help create the kind of online environment that supports the success of learners and the mission of the university.

3.1. Key Principles and Guidelines

The proper conduct in online courses entails various principles and guidelines: (Clark & Mayer, 2023)

1. Be clear in your communications. Write and speak clearly about the expectations and requirements of tasks. Be explicit in your directions and communications in online postings. Ensure that all instructions are clear and easy to understand for online learners.

2. Mind your manner. Demonstrate to your instructor and fellow students respect and an air of professionalism. In online education, it is important to adhere to key principles and guidelines for digital etiquette. This helps maintain a respectful and professional environment for everyone involved.

3. Be mindful of tone. It's easy for our tone to be misunderstood in electronic communication. To prevent misunderstandings, word your communication in a polite and respectful manner. When discussing topics related to online education, it is important to remember to be clear and concise in your communication. Avoid using ambiguous language that could lead to misunderstandings.

4. Use correct language. Electronic communications include reading students' and instructors' posted messages. Electronically posting written messages is one of the primary ways to communicate in each class. So, present your ideas in a well-organized and coherent fashion. When discussing digital etiquette in online education, it is important to consider key principles and guidelines to ensure a respectful and productive learning environment. One key principle is to always be mindful of your tone and language when communicating with others online.

5. Be mindful of schedules. Keep outside deadlines in mind when coordinating group project meetings, so as not to conflict with another group member's class schedules or obligations. Some key principles to keep in mind when coordinating group project meetings include setting clear goals and expectations, communicating effectively, and being respectful of others' time.

Being an active contributor in the learning process serves to enhance the overall quality of teaching and learning within a course, thereby fostering a captivating and intellectually stimulating environment that promotes cooperative learning. Through the exchange of valuable feedback amongst peers, individuals can identify areas for improvement and gain a deeper understanding of the practical applicability of their newly acquired knowledge. Within group settings, it is vital to maintain these fundamental concepts, as they contribute to the creation of an optimal learning environment that encourages active participation and engagement. In the context of online classes, demonstrating active involvement and contribution becomes even more significant, as it showcases to both colleagues and professors your continued dedication and commitment despite physical separation. For instructors, receiving individual emails from students serves as a valuable tool for gauging the effectiveness of their instructional materials in a non-traditional classroom setup. By providing constructive responses in online discussion boards, students further contribute to the collective learning experience, as the valuable insights they offer can assist fellow students in addressing questions raised by instructors. Moreover, it aids in framing comprehensive and thoughtful responses to other ongoing discussions within the weekly topic threads, thereby enriching the overall knowledge exchange within the virtual learning community. (Ahmed et al.2024)

The following table summarizes the key principles of digital etiquette and their manifestations of adherence and violation:

Principle	Manifestations of Adherence	Manifestations of Violation
Respect	- Using polite and courteous language- Valuing diverse opinions	- Using offensive or rude language- Engaging in digital bullying
Privacy	- Protecting personal privacy and others'- Asking permission before sharing personal data	- Sharing private information without consent- Violating others' privacy
Responsibility	- Taking responsibility for shared content- Sharing meaningful and accurate content	- Spreading rumors or false information- Ignoring the consequences of sharing inappropriate content
Integrity	- Crediting sources and respecting intellectual property rights- Avoiding plagiarism	- Stealing others' work without attribution- Publishing content without proper source citation
Cybersecurity	- Using strong, secure passwords- Avoiding suspicious links and regularly updating software	- Neglecting cybersecurity practices- Exposing oneself or others to digital risks
Digital Empathy	- Practicing empathy and understanding online- Being mindful of others' feelings	- Ignoring others' feelings and responding harshly- Engaging in cyberbullying and emotional abuse
Professionalism	- Communicating clearly and professionally online- Maintaining punctuality in responses	- Using informal or inappropriate language in professional contexts- Delayed responses or ignoring important messages
Self-Control	- Avoiding impulsive and emotional responses- Managing emotions effectively online	- Reacting impulsively or angrily- Getting involved unnecessarily in online conflicts
Equality & Non-discrimination	- Avoiding discriminatory or biased language- Respecting diversity in opinions, culture, gender, and race	- Using discriminatory or biased language against individuals or groups- Practicing racism or prejudice online
Academic & Scientific Interaction	- Engaging respectfully in academic discussions- Providing constructive and evidence-based feedback- Crediting academic and research contributions clearly- Encouraging collaborative research and respectful debates	- Engaging in aggressive academic arguments- Diminishing or undermining others' academic efforts- Plagiarizing or falsifying academic information- Ignoring collaborative and ethical research standards

3.2. Cultural Considerations in Digital Etiquette

Digital etiquette is not a one-size-fits-all framework; it is heavily shaped by cultural and social norms that vary across communities and regions. What is considered respectful or appropriate digital behavior in one context may be perceived differently in another. For instance, direct communication styles may be valued in Western educational systems, while indirect, more formal expressions are preferred in Middle Eastern or Asian cultures. Therefore, promoting digital etiquette requires a culturally sensitive approach that takes into account students' linguistic, social, and generational backgrounds. Universities should consider embedding digital communication guidelines that reflect their students' cultural values and expectations, fostering more inclusive and respectful online learning environments.

4. Impact of Digital Etiquette on Student Engagement and Learning Outcomes

Adhering to digital etiquette, or netiquette principles, can have a long-lasting and profound impact on both a student's level of engagement and their overall learning outcomes. In the ever-evolving online classroom, following digital etiquette not only promotes effective and efficient communication and collaboration among students but is equally important for facilitating harmonious and respectful interactions where students feel their contributions are genuinely valued and appreciated. It is crucial to note that motivation plays a pivotal role in predicting student engagement, and extensive research demonstrates that students immersed in a positive and supportive learning environment (characterized by respectful and disaffection-free interactions) are not only more prone to being motivated to succeed academically but also exhibit higher attendance rates. Moreover, numerous studies have unequivocally shown that digital etiquette can noticeably manifest in both teachers' and students' academic performance, providing compelling evidence of its profound influence on the educational journey. (Reguera & Lopez, 2021)

Good digital behavior achieves good outcomes. The following case studies recount students who transitioned to progress well after their instructors effectively moderated online classroom behavior. Students were experiencing difficulties at the beginning of their online studies, with students being abrasive and unkind, which was affecting the learning processes of all students. However, as preventative moderators stepped in, behavior improved significantly, the majority of the students started posting respectfully and supporting each other's learning journey. Consequently, their marks had increased as evidence of their enhanced understanding and application of the lessons. These are clear and remarkable examples that emphasize the transformative power of digital etiquette in fostering a positive educational environment. Finally, in addition to promoting positive learning environments, practicing and upholding digital etiquette principles can play a crucial role in reducing the risk of cyber harassment, including cyberbullying and libel, ultimately contributing to a safer and more inclusive online space for all users (Gabrielli et al.2021).

4.1. Practical Evidence of Digital Etiquette Impact

In a case study, a science student who followed a "rudimentary form of netiquette" in discussions and emailing early in an indigenous learning community was requested by her elders to not use the "public

discussion forum" because of the inappropriate words she was using in her discussion postings, and she soon stopped emailing her instructors altogether. She failed the course, but the following term, the student retook the course using a different email, rekindled relationships with family and community members, and did all of her assignments. "She continued to engage in discussion and group work with her classmates" and passed the course. In his work with students online, it was found that teaching students netiquette had a significant impact on their classroom interactions and increased their learning success. In a 1999 Pilgrim sorghum marketing course, students who practiced good netiquette techniques and exhibited good netiquette in their papers accumulated more points than students who practiced good netiquette techniques but did not exhibit good netiquette, who in turn accumulated more points than students who practiced neither good netiquette nor netiquette techniques. (Soler-Costa et al.2021)

In an educational ethics course, students who used email to communicate grew tired of reading trivia and of mass email, so they "stopped checking email, clicking off after a sentence, one-word answer, or invitation to a chat room." In surveys, students indicated it is "too easy for other students to be rude in anonymous ways" and "email had a, 'Hey, professor! Look at me! I have an email address because I am modern and forward thinking' kind of vibe that students both resented and reveled in." Paragraphs of guidance presented earlier helped participants in a distance education course think about how to behave in the online classroom, though they also said the information could be intimidating. Teachers, students, and experts on cybernetiquette acknowledge that writing a message in all caps indicates shouting, but that not all-caps shouting qualifies as "yelling" and is therefore inappropriate, annoying, and more predictable than shouting itself. Studies of these results also include research on the authors of some of the works cited, and analysis of related ancillary research, approaches, and literature. Challenges in these studies reveal that practitioners often need to spend time and resources on reallocating work, and can even change informal practices before implementing new guidelines, strategies, and recommendations. (Colenbrander et al., 2020)

5. Conclusion and Practical Recommendations

The increasing reliance on digital learning has made digital etiquette an essential pillar of effective and inclusive online education. Throughout this paper, we have explored the principles, challenges, and cultural nuances that shape respectful and mindful communication in virtual classrooms. When educators and students practice appropriate digital behavior, educational environments evolve into spaces characterized by empathy, professionalism, and mutual respect.

Digital etiquette, or netiquette, enhances student engagement by fostering clarity, reducing misunderstandings, and encouraging participation. As online learning continues to grow, adherence to these principles not only supports learning outcomes but also contributes to a safer, more inclusive digital space.

5.1. Practical Recommendations

- **For Institutions:**

Integrate digital etiquette guidelines into academic policies and orientation programs. Offer training workshops that address communication styles across cultures and generations.

- **For Instructors:**

Model respectful digital behavior, provide feedback on students' online communication, and foster open discussion about digital expectations.

- **For Students:**

Practice active listening, use appropriate tone and language, and be mindful of cultural and generational diversity in communication.

By institutionalizing digital etiquette education, universities can cultivate digital citizens who are prepared to engage ethically, respectfully, and effectively in the online academic sphere.

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FULL PAPER

Thematic and Artistic Characteristics in the Poetry of Ahmed Zaki Abu Shadi - An Analytical Study -

الخَصَائِصُ المَوضُوعِيَّةُ وَالفَنِّيَّةُ فِي شِعر أَحمد زَكِي أَبو شَادِي – دراسةٌ تَحْلِيَّلِيةٌ –

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Abstract

This study aims to shed light on the thematic and artistic characteristics found in the poetry of Ahmed Zaki Abu Shadi. It seeks to clarify these features and trace their Romantic foundations—both in terms of subject matter and artistic elements such as language, style, and poetic imagery.

The importance of this study lies in its contribution to the body of literary analysis that has addressed Abu Shadi's poetry from various angles. The nature of the research necessitated the use of two primary methodologies: the descriptive-analytical method, which observes and analyzes significant poetic texts, and the stylistic approach, which examines and highlights aesthetic and artistic phenomena within selected poems.

The study arrived at several conclusions, among them: Ahmed Zaki Abu Shadi was deeply influenced by the Romantic school in terms of themes, often addressing subjects prevalent in Romantic poetry, such as nature, woman, and complaints about life.

Keywords: Ahmed Zaki Abu Shadi, thematic characteristics, artistic characteristics, Romanticism, modern poetry

المُستخلص:

هدفت هذه الدّراسة إلى تسليط الضّوء على الخصائص الموضوعيّة، والفنّيّة الّتي انطوى عليها شِعر الشّاعر؛ أحمد زكي أبو شادي، ومن ثمّ تجلية هذه الخصائص، وبيان منطلقاتها "الرّومانتيكيّة" إنْ من ناحية الموضوع، أو من النّاحية الفنّيّة، المتمثّلة في: اللّغة، والأسلوب والصّورة الشِّعريّة،... وتأتت أهميّتها من كونها إثراءً لبعض الدّراسات الفنّيّة الّتي تناولت شِعر أبي شادي من جوانب مختلفة. وقد اقتضت طبيعة الدراسة الاتّكاء على المنهجيّن، الأوّل: المنهج الوصفيّ التّحليليّ، الّذي يرصد النّصوص الشِّعريّة الدّالة، ويحلّلها، والثّاني: المنهج الأسلوبيّ، الّذي يتتبّع الظّواهر الفنّيّة الجماليّة في النّصوص المختارة، ويجلّيها. وقد أسفر البحث عن عدّة نتائج، منها: تأثّر أحمد زكي أبو شادي بالمدرسة الرّومانتيكيّة من النّاحية الموضوعيّة؛ إذ طرح كثيراً من الموضوعات الّتي تناولها الشِّعر الرّومانتيكيّ، مثل: الطّبيعة، والمرأة، والشّكوى من الحياة...

الكلمات المفتاحيّة: أحمد زكي أبو شادي، الخصائص الموضوعيّة، الخصائص الفنّيّة، الرّومانتيكيّة، الشِّعر الحديث.

المقدّمة:

شكّل عصر النّهضة بداية انعطافة جديدة، ومنطلقاً جوهريّاً في تطوّر الأدب العربيّ، ولا سيّما الشّعر، فرياح التّغيير الّتي هبّت بخاصّة منذ بداية القرن العشرين، والمتمثّلة في الاتّصال بالحضارة الغربيّة، وكذلك الحاجة الماسّة لتطوير الأدب العربيّ نفسه، وضرورة ملامسته للقضايا الوطنيّة المفصليّة، والتّعبير عنها، فطبيعة الحياة العربيّة الجديدة –في شتّى جوانبها: السياسيّة، والفكريّة، والاجتماعيّة ...إلخ – فرضت تحوّلاً جذريّاً في طبيعة الأدب العربيّ، وإعادة النّظر في القضايا الّتي كان يطرحها؛ ولهذا كانت ولادة الشّعر العربيّ الحديث

بخاصّة، وتطوّره ضرورة ملحّة، واستجابة لا بدّ منها؛ لتلبية الأحداث المتلاحقة، والظّروف المتشابكة، وكذلك من أجل إعادة بناء الشّخصيّة العربيّة السّليبة الّتي انهكتها الظّروف التّاريخيّة، والواقع البئيس.

ولا شكّ في أنّ الاتّجاهات، والتّيارات، والمدارس الأدبيّة الجديدة الّتي شهدها الأدب العربيّ الحديث كان لها دور فاعل في تطوير الأدب، فقد أخذ القارئ يشهد نشوء دعوات تجديديّة فرضتها طبيعة الاحتكاك المباشر، وغير المباشر مع الثّقافة الغربيّة؛ إذ كانت مصر، ولبنان من أوائل الأقطار العربيّة اتّصالاً بالحضارة الأوروبيّة؛ نظراً لموقعهما الاستراتيجيّ، ومن ثمّ كان نتاجهما على صعيد الأدب أغزر إنتاجاً، وأكثر تنوّعاً، حيث ظهر جيل من الشّعراء الجدد، الذين أدركوا أن طبيعة الشّعر ينبغي أن تكون تعبيراً عن النّفس، ومعاناتها، وما يضطرب فيها من خير، وشرّ، وألم، ولذّة، وتصويراً لما تمرّ به الأمّة من أحداث جسام، وخطوب جليلة، وانعكاساً لرؤية الشّاعر للكون، والحياة، والإنسان.

ومن هذه المدارس، والاتّجاهات الجديدة الّتي شهدتها السّاحة الأدبيّة في القرن العشرين، مدرسة أبلّو أو اتّجاه أبلّو، أو ما يسمّى بـ "الاتّجاه الابتداعي العاطفيّ"، الّذي ساهمت عوامل عديدة في ظهوره، وتهيئة التّربة الملائمة لترعرعه، وازدهاره، منها –مثلاً– طبيعة الصّراع الّذي كان محتدماً بين المحافظين البيانيين، وعلى رأسهم أمير الشّعراء؛ أحمد شوقي (ت 1932م) وبين المجدّدين الذّهنيّين، وعلى رأسهم الأديب الكبير؛ عبّاس محمود العقاد (ت 1964م) فكانت الفرصة متاحة، والمجال رحبًا أمام جيل من الشّباب من الشّعراء؛ لكي يختار أحسن ما في الاتّجاهين، ويتجنّب أسوأ ما فيها، وأن يمزج بين محاسن كلّ من هذين الاتّجاهين حين يقول شِعراً، ومن ثمّ ينجو ممّا تورّط فيه الجيلان السّابقان من محافظين، ومجدّدين على حدّ سواء(هيكل، أحمد، 1994، ص298–199).

وثمّة عامل آخر – على قدر كبير من الأهميّة– هيّأ لظهور هذا الاتّجاه، وهو التّأثر بِشعر "الرّومانتيكيّين" الأوروبيّين، وبالإنجليز منهم بصفة خاصّة، فقد كان روّاد هذا الاتّجاه شعراء مثقّفين ثقافة أوروبيّة، ومجيدين – على وجه الخصوص للّغة الانجليزيّة، ومتعلقين بصفة أخصّ بِشعر"الرّومانتيكيّين" الإنجليز، فأحمد زكي أبو شادي(ت1955م)– الّذي يعدّه جلّ الدّارسين رائد هذا الاتّجاه، كان قد عاش في إنجلترا نحو عشر سنوات، لإتمام دراسته في الطّب، وكان مفتوناً ببعض الشّعراء "الرّومانتيكيّين" الإنجليز، وإبراهيم ناجي (ت 1953م) الّذي يعدّ من أهم معالم هذا الاتّجاه، كان من المجيدين للّغة الإنجليزيّة، ومن أقوياء الصّلة بالشّعراء؛ الإنجليزيّ "الرّومانتيّكيّ"، فضلاً عن معرفته بالفرنسيّة، وقراءته بعض الشّعراء الفرنسيّين...(هيكل، أحمد، 1994، ص299– 302).

أهمّيّة الدّراسة:

تأتي أهمّيّة الدّراسة من كونها تُسلّط الضّوء على الخصائص الموضوعيّة والفنّيّة الّتي انطوى عليها شِعر أحمد زكي أبو شادي. وبيان منطلقاتها الرّومانتيكيّة.

أهداف الدّراسة:

تجلية بعض الخصائص الموضوعيّة والفنّيّة في شِعر أحمد زكي أبو شادي. والوقوف على منطلقاتها الرّومانتيكيّة.

منهج الدّراسة:

اتّكاءت الدّراسة على المنهجيّن، الأوّل: المنهج الوصفيّ التّحليليّ، الّذي يرصد النّصوص الشِّعريّة الدّالة، ويحلّلها. والثّاني: المنهج الأسلوبيّ، الّذي يتتبّع الظّواهر الفنّيّة الجماليّة في النّصوص المختارة، ويجلّيها.

الدّراسات السّابقة:

ثمّة دراسات عديدة تناولت شِعر أحمد زكي أبو شادي، ومنها– مثلًا–:

دراسة: الشّيخ كامل محمّد محمّد عويضة، بعنوان:"أحمد زكي أبو شادي الشّاعر النّموذجيّ". وقد عرض فيها لحياته، وأغراض شِعره، ولغته، وأساليبه الشِّعريّة.

دراسة: عبد العزيز الدّسوقي؛ بحث ضمن كتاب:"أعلام الشِّعر العربيّ الحديث". وهو عبارة عن **دراسة لثلاثة شعراء**: أحمد شوقي لمحمّد مندور، وأحمد زكي أبو شادي لعبد العزيز الدّسوقي، وبشارة الخوري لأديب مروّة، قدّم لها: إيليّا حاوي تحدث عن: حياة الشّاعر؛ أحمد زكي أبو شادي، وعصره من النّاحية: السياسيّة، والاجتماعيّة، والتّيارات الأدبيّة، والفكريّة إبّان تلك الفترة، وآرائه في التّجديد، وأغراض شِعره، وريادته لتيار أبلّو، وأورد نماذج من شِعره في أغراض شِعريّة مختلفة.

دراسة: نورل إسلام، أمير حسين، بعنوان:"أحمد زكي أبو شادي وخصائص شِعره: دراسة تحليليّة"، تحدّثا فيه عن حياة الشّاعر، ونشأته الأدبيّة، وتأثّره بالمدارس الشِّعريّة المختلفة، وقراءاته في الشِّعر الإنكليزي، والأمريكيّ، وأدب المهجر، وكذلك عرضا لأهمّ الأغراض الشِّعريّة الّتي تناولها في دواوينه الشِّعريّة، ثمّ أشارا إلى أهمّ الخصائص الفنّيّة الّتي انطوت عليها بعض قصائد، مثل: الرّمزيّة، والواقعيّة، والطّبيعة، والمرأة... وقد اختلفت دراسة الباحث عن هذه الدّراسات في تركيزها على الخصائص الموضوعيّة، والفنّيّة للمدرسة الرّومانتيكيّة" من خلال شِعر الشّاعر مدار الدّراسة.

المبحث الأوّل: جماليّة المضمون/ المحتوى في شِعر أحمد زكي أبو شادي

شطر النّصوص الشِّعريّة إلى مضمون، وشكل أمر متعذّر للغاية، ولكن قد يعمد الباحث إلى الفصل التّقليديّ بين المضمون، والشّكل؛ وذلك لأجل غايات الدّراسة فحسب،"فإذا فهمنا المضمون على أنّه الأفكار، والعواطف الّتي يحملها العمل الأدبيّ، فإنّ الشّكل يضم كلّ العناصر اللّغويّة الّتي يُعبّر بها عن المضمون"(وليك، رينيه، وآرن، آوستن، 1992، ص93). فالمضمون، أو المحتوى، هو: ما يقدّمه العمل الفنّيّ من معانٍ، وما يريد توصيله من أفكار، ويتضمن جوانب متعدّدة، ومختلفة، منها: اجتماعيّة، وإيديولوجيّة، وسيكولوجيّة، وسياسيّة... فالمضمون، أو المحتوى هو: كلّ ما يشمل عليه العمل الفنّيّ من: فكر، أو فلسفة، أو أخلاق، أو اجتماع، أو سياسة، أو دين، أو غير ذلك من موضوعات ذات شأن، ومن هنا يكون المضمون، أو المحتوى، هو في – غالب الأمر– المادة الخامّ الّتي يستخدمها الأديب، أو الشّاعر الّتي يشكّلها الفنّان في الصّورة الّتي يريدها(العشماوي، محمد، 1980، ص153). وقد تباينت مواقف النّقّاد في النّظر إلى كلّ من المحتوى والشّكل، من حيث أهميّة كلّ منها في العمل الفنّي، وعلى كلّ حال، فإنّ "المضمون: يعني شيئاً أكثر بكثير من مجرّد الموضوع، أو الفكرة، وإنّه مهما يكن من أهميّة اختيار الموضوع، فإنّ مضمون العمل الفنّيّ، يتحدّد بما يتناوله، بقدر ما يتحدّد بأسلوب تناوله" (فيشر، إرنست، 1971، ص182). فجماليّة الموضوع لا تنبع من الموضوع نفسه، بل في طريقة تقديمه، وفي وجهة نظر الفنّان، ورؤيته الّتي تجعل منه موضوعاً حسّاساً؛ قابلاً للجدل، والحوار، وتباين وجهات النظر.

وبالعودة – إلى شِعر أحمد زكي أبو شادي، ومن خلال تأمّل شِعره يجد القارئ مجموعة من المضامين "الرّومانتيكيّة الّتي طرقها الشّاعر في دواوينه الشِّعريّة العديدة، ومن ذلك **أوّلاً: الاهتمام بالمرأة**، واتّخاذها ملاذاً يفرّ إليها من عذاب الحياة، وقسوتها، ومرارتها، وجعلها عزاءً يعوّض بها ظلم الأيّام، ومرقىً يسمو عليه فوق العالم الأرضيّ المفعم بالأذى والشّرّ، والجراحات، والآلام، فالمرأة لديه تقترن بالجمال، وحبّها يتمرّد على كلّ القوانين، والأنظمة، والأعراف، ويرفع المحبّ إلى العالم العلويّ، فهو –بالتّالي– علويّ مقدس، ولذلك تراه يقع في غرام امرأة اسمها زينب ربيبة أبيه محمد أبي شادي الّتي تعيش معه في سقف واحد، يحبها حبّاً جمّاً، ولا تحبّه، لا بل ترفضه، وتتزوّج من رجل آخر، وظلّ يردّد هذا الاسم في قصائد عديدة من شِعره (إسلام، نورل، حسين، أمير، 2020، ص13). منها قصيدة زينب الّتي يقول فيها (أبو شادي، أحمد، 2005، ص31):

زَينَبُ! مَا أحْلـى الخُفـوقَ الَّذِي ... لَا يَرْحمُ القَلــبَ لَـدَى قُــرْبِكْ

زينَبُ! يَا رُوحِـي وَرَيْحــانَتِـي ... مَا شِئتِ مَاشِئتِ هــَوَى صَبّكْ

زَينَبُ! يَا شَمسِـي وَيَا بَهجَتِـي ... كُونِـي كَعهْدِ الشَّمسِ فِي حُبّكْ

ويجد أحمد زكي أبو شادي في الحبّ سلاماً من شقاء الحياة، وعثراتها، ومتفيّئاً ذا ظل ظليل من وعثاء السّفر في دوروبها الضّيقة، ويجد فيها –أيضاً– مشفى من أذى النّاس، يقول من قصيدة بعنوان"الفنّان"(أبو شادي، أحمد، 2005، ص50):

أَمَـاناً أيَّـــــهَا الحُـــبُّ سَـــلَاماً أيُّـــهَا الآسِـــي
أَتيـْـتُ إليـْـكَ مُستشفِياً فِراراً مِـــن أَذى النّـــاسِ
أَتيْتُ وَحـَـولـِـيَ الدُّنيـَـا تَصِيحُ بِلفظِهـَـا النّـَـارِي
بِيـــــَومٍ كُلُّهُ لَهَـــــبٌ كأَنِّـــي مَطْمَحُ الثَّـــارِ
حَنـَـانَكَ أيُّـــهَا الدَّاعـِي فَأنتَ مَلِيـــكُ أَنْفَاسِـــي

ويُعدّ أحمد زكي أبو شادي من الشّعراء الذين كلفوا بالمرأة روحاً، ووجداً، وعذاباً، وليس ممّن هام بها جسداً، ومتعة، ونعيماً، يقول واصفاً بعض ما يعانيه من وحدة، وجوى، ولوعة، وشكوى، وهمّ، وسقم، وعذاب، وشقاء... من قصيدة بعنوان"بعد الفراق"(أبو شادي، أحمد، 2005، ص18-19):

وَيَومَ أَثـَـارَ البَيـْـنُ كَامـِـنَ لوْعتِـــي وَأَغْرَقتُ فِي شَكـوَى تُخَفِّفُ مِنْ هَمِّي
نَفَضْتُ الكَـرَى وَارْتحتُ لِلبَثِّ بَعدَمـَا تَهالَكتُ مَـا بَيـــنَ الصَّبـــابَةِ وَالسّقْمِ
يَكـــَـادُ يَكـُـونُ الحُبُّ دِينـــاً أَعزُّهُ وَهذَا الشَّقـَاءُ العَذْبُ مِنْ مُنتَهَى هَمِّي

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سَـــلَامٌ عَلَى حُســـْنٍ دَفَنَّا سِهـَامَهُ بأَضْلُعِنـــــا بَيـــــنَ التّكتُّمِ والنَّمِّ
سَـــلَامٌ وَفِي نَفْســِي شُجـُونٌ كَثِيرةٌ تَفِيضُ لَدَى التّذْكَارِ فِي مَدْمَعِي الجَمِّ

ثانياً: حُبّ الطّبيعة، والاهتمام بها. إذا كان الكلاسيكيّ يألف المدن، ويُحبّ المجتمعات، وقلّ ما يصف الرّيف، أو يضيق ذرعاً بالمدينة، فإن الرّومانتيكيّ مولع بالطّبيعة، وتروقه الوحدة، في أحضانها؛ ليخلو إلى ذاته، فطابع الرّومانتيكيّ النّشوة بين أحضان الطّبيعة، وكذلك حبّ الخلوة، واعتزال النّاس؛ لأنّ المجتمعات مباءة، ومثار للمشكلات، وعبء على ذوي النّفوس الرّقيقة الشّعور(هلال، محمّد، د.ت، ص152-153). يقول أحمد زكي أبو شادي من قصيدة "في الطّريق الحزين"(أبو شادي، أحمد، 2005، ص454-455):

يَا طَرِيقِـي الحَزِينَ عَرِّجْ عَلَـى الغَرْ سِ وَسِـــرْ بَينَهُ بِرُوحِـي وحِسِّـي
فـِي صَمِيمِ الحُقُولِ سِرْ بِي وَخُذْنِي مِـــنْ وُجـُـودٍ وَهَبتُهُ كُلَّ يَأسِـــي
فـِي جِوارِ المِيـــَاهِ تَجْـرِي فَتَرْوِي قَبـــلَ رِيِّ الغِـــرَاسِ قَلبـِي ونَفْسِي

فـــي جِوارِ النَّبـَاتِ يَخْفِقُ مِنْ خَفـ ـــقِي ويُفْضـــي بِهَمسِهِ مِثلَ هَمْسِي
فـــي جِـوارِ الأَعشَـابِ يَلمسُهَا المَا ءُ بِرِفقٍ والنّـــورُ فـــي شِبهِ لَمْسِ
فـــي جِـــوارِ النّـــوارِ قَبَّلَهُ النَّحْـ ـــلُ بِشـــوقِ المدلَّهِ المُتَحَسِّســي
أَنا بعضٌ مِـــن الوجـــودِ الّذي يَأْ بَـــى وجُـــوداً على فَـسادٍ ورِجْسِ

فالشّاعر – كما يبدو من أبيات هذه القصيدة – يعشق الطّبيعة، ومظاهرها، ويحبّها حبّاً جمّاً؛ يمتزج بها، ويذوب فيها، بل يتماهى معها، فيغسل في طهرها رجس العيش، وأدران الحياة، كلّ ذلك في خيال مجنح، ونشوة مشوبة بعاطفة ملتهبة، وهيام عميق.

ووصفه لمظاهر الطّبيعة يتّسم بروح جديدة، فهو وصف تصويريّ؛ يدقّق، ويعمّق، ولا يكتفي بمظاهر المرئيّات، بل يحلّ فيها، ويغوص إلى أعماقها، وأحياناً يخلع أحاسيسه على الطّبيعة، ومشاهد الحياة، ويمتزج بالمظاهر الكونيّة، ومن ثمّ كثرت في أوصافه الألفاظ الجديدة الخلّابة، والتّعبيرات الرّشيقة الموحيه، مثل: الأشعة، والظّلال، والخريف الحزين، والعشب الوسنان، والطّلل الباكي، والطّير الحزين...إلخ، وهو في كلّ هذه الأوصاف يحاول أن يمزج بين أحزانه الخاصّة، وأحزان الطّبيعة(الدّسوقي، عبد العزيز، 1970، ص169–170). يقول من قصيدة بعنوان: "الطّبيعة والنّاس"(أبو شادي، أحمد، 2005، ص503–504):

لَا تَعَجبُـوا حُبّـِي الطّبيعةَ وَحْدَها قَدْ صـَـانَ مِـنْ حُبِّـي لِهذَا النَّاسِ

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ياللأَنـــامِ وَللضّمـــَائرِ مَالَـــهَا مَوْتَـــى؟ وكَيفَ يَتِيهُ فِينَا المَيْتُ؟!
سَخِرتْ بِهِم صُورُ الطّبيعةِ عِندَما سَـــرَقُوا فُنـــُونَ تَخَيُّلـــي وَبَيانِي
وَتَبجَّحـــُوا كَالمُجـــرِمينَ فَليتَهُم عَرَفـــُوا حُقـــُوقَ الفَنّ لِلفنَـــانِ

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النُّـــورُ لَيـسَ النُّورُ إلَّا مُهجَتِي! أَنَا مَـنْ شَدَوتُ بِهِ سِنينَ حَيـاتِي
نَبضتْ بِأمواجِ الضِّيـاءِ عَواطِفِي وانْســـابَتْ الأَمـــوَاجُ فِـي ذرّاتِي

ثالثاً: الحنين إلى مواطن الذّكريات، والهروب إليها في لهفة حزينة، وتعطش مرّ؛ وذلك فراراً من الحاضر المؤلم، والواقع المنفّر(هيكل، أحمد، 1994، ص318). والحنين إلى هذه الذّكريات ظاهرة إنسانيّة عامّة، تحسّ بها الذات لفَقْدها أعزّ ما تملك، وأنفس ما تعتزّ به، ولعلّ مدعاة تلك الحالة، وذلك الشّعور، الإحساس بالفناء، والخوف من الزّوال، فأعذب الذّكريات؛ ذكريات الصّبا، وأجمل الأيام ما فيها من نقاء، وطهر، وصفاء، وحُبّ، وغرام أثير، يقول أحمد زكي أبو شادي من قصيدة بعنوان:"الحنين"(أبو شادي، أحمد، 2005، ص532–533):

كَمْ يَستبِـدُ الحَنِيـْن! أوّاهُ لــَـو تَعلَمِيـــــنْ
وَكَمْ يَئـــنُّ فُـــؤادِي وَمَا شَكَــوتُ الأَنيـنْ
وَكَأنَّ بَارِقِــي عَذَابِي فُرُوضُ نُسْــكٍ وَدِينْ

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كَمْ صَاحَبْتِنــي لِصفْوٍ والصَّفوُ سِـرٌّ مَصُونْ
وَجِئــتُ جَنَّةَ أُنْسِــي كَأنَّ أُنْسِــي رَهِيــنْ
وَمــَا أَرَدتُ فَكَـاكـاً لَوْ إنَّمَــــا تأذَنِيـــنْ

ويحنّ إلى أيّامه الخوالي، وذكرياته النّفيسة العزيزة الّتي قضاها في كنف زوجته، ويستذكر أجمل أيامه معها، ويرى في فَقْدها نهاية عمره، وتلاشي أحلامه، وانقضاء سعادته وهنائه، يقول في رثاء زوجته(أبو شادي، أحمد، 2005، ص563-565):

مَاذَا تُفِيــدُكِ لَوْعَتِــي وَبُكَـائِــي هَذَا فَنــَاؤكِ مُــؤذِنٌ لِفَنــَـائِي

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اليَــومَ أُدرِكُ أَيَّ عِــبءٍ فَـــادِحٍ عَنِّـــى رَفَعــتِ وَمَا مَـدَى أَعبَائِي
كَمْ كُنتُ أَحلَمُ بالهَنـــاءةِ وَالرِّضَـى لَكِ فــِي نِهـايةِ عُمــرِكِ المُتنَـائِي
وَأَودّ مِــنْ قَلبِــي بَقاءَكِ بَعــدَما أَفْنَـــى وَأَحســبُ فــِي هَواكِ بَقائِي
وَأَعُدُّ عُمــرَكِ وَحَـدَهُ عُمْــرِي وَمَا أَرضَـــى سِــوَاكِ مِنَ الحَيـاةِ جَزائِي

ويُلحظ –أيضاً– حنينه إلى مرابع هواه، ومراتع صباه، وموطئ قدمه الأوّل؛ وطنه، ولاسيّما عندما ينأى عنه، ويرتحل عنه لسبب، أو لآخر، فذكرياته بحلوها، ومرّها، ترافقه أيّنما حلّ، وارتحل، يقول في إحدى قصائده(أبو شادي، أحمد، 2005، ص577-578):

قُبَــلٌ كَأنْفــاسِ (الرَّبيعِ) أَبثُّهــَـا شَوْقِــي إلـــى الوَطـنِ البَعِيدِ مَزَارَا
وَأَرَاهُ فــي حِضـنِ (الخَرِيفِ) بِنَضرَةٍ لَا تَستحِيــلُ بَشَاشَــةً وَنَضَـــارَا
وَكَأنّ مَنْفــَاي السَّحِيقَ مُقرّبِـــي أَبــَداً إليهِ، وَإنْ نَــأى وتَـــوَارَى
وَأَغصُّ بالذِّكــرَى وَليــسَ بِنافِعي أنْ لَا أَغــصُّ وَأَنْ أَمــُوتُ مِــرَارَا

وليس بخافٍ أنّ الشّاعر يحنّ إلى وطنه أشدّ الحنين، ويهواه هوى كبيراً، رغم أنّه أُبعد عنه قسراً.

رابعاً: تصوير البؤس، والألم، وإبراز بعض الجوانب المظلمة في المجتمع، وإظهار ما فيه من: شقاء، وتعاسة، وضحايا، وتشريد، وكذلك تصوير تعاسة الرّيف، وشقاء الفلاح، وهذا يدخل ضمن الشّعر الاجتماعي الذي يعكس واقع الحياة البئيس، وما يعانيه الإنسان من قهر، وظلم. ومن يطّلع على شِعر أحمد زكي أبو شادي يجد العديد من القصائد الّتي تصور تلك الحال، مثل:"الفلّاحة، محرّر الفلّاح، الزّارعون، الحقول، قصائد الحقول، نصير العمّال، خراب الفلّاح"... يقول– مثلاً– في قصيدته الموسومة بـ "الفلّاحة"(أبو شادي، أحمد، 2005، ص90):

سِيـرِي خِـلالَ القُطْنِ بَيـنَ تَبسُّمٍ ... مـَـا القُطنُ إلّا مِـن تَبسُّمِ فِيـــكْ
وَدَعِـي الَّذِي يَدعُــوكِ ربّةَ مِصْرِهِ ... يَجنِـــي ابْتسامَ الحُــبِّ دُونَ شَريكْ
إنّـــــي أُبايعُ بالسّيَـــادةِ مَـنْ لَهَا ... فِي مَجدِ (وَادِي النّيلِ) مَجدُ مَلِيك!
رَبّتْ لَهُ هِمَمَ الرِّجـــالِ وأَطلَعَـتْ ... أَمـَلاً كَوَعْدٍ لِلصّبـــاحِ وشِيـــك

ولا شكّ في أنّه يثني على هذه الفلاحة ثناءً عطراً، ويرى أنّها تستحق لقب السّيادة؛ لأنها تبني مجدّ مصر، شأنها شأن العظام، والملوك؛ بتبسّم وحبور، ودون تضجّر، وتأفّق، وملل، وتربّي همم الرّجال على هذا الفعل القمين بالاحترام، والتّقدير.

ويصور في قصيدة أخرى معاناة الفلّاح من كثرة الضرائب، وعبئها الثّقيل عليه؛ حتّى بات الفلّاح يعاني الأمرّين: عيشاً رديئاً، وامتهاناً ذليلاً، فضلاً عن قذارة المنازل؛ حتّى أضحت بيوتهم قبوراً، عديمة الأماني، والأحلام، وكذا طعامهم وكساهم لا يسمن ولا يغني من جوع، وعري، يقول(أبو شادي، أحمد، 2005، ص490):

يَا للضـــَّـرَائـــبِ بَاتَتْ ... هـــِيَ الخَـــرَابُ الثّانِـي
عَيـــشٌ؟ وَهَلْ ثَمَّ عَيـــشٌ ... عَلَـــى رَدىً وَامْتِهـــانِ
هَـــذِي القَـــذَارةُ رَمْزٌ ... لَهُم بِكُـــلِّ مَكـَـــانِ
هَذِي البُيـــوتُ قُبـــُورٌ ... تَمـُـوتُ فِيهـَـا الأَغَانِي
أَمَّـــا الطّعَـــامُ فَوَهْمٌ ... أَمَّا الكِســـاءُ فَفـَـانِ

ويشعر بمنتهى الأسى، والحزن، وهو يرى اليتيم يعاني الفَقْد، والأَتراح والآلام، والحرمان من العطف والحنان، ويأخذه البكاء، وتجود عيناه بالدّموع الغزار، ولا سيما، وهو يشاهد الأيتام في الأعياد يغادر قلوبهم الفرح والسّرور، وتتلاشى عن أفواههم الابتسامة والسّعادة(أبو شادي، أحمد، 2005، ص291–292). ويتعاطف مع الشّحّاذ، ويصف بؤسه وفقره، وما عليه من ثياب الذّل والحرمان، والأسمال البالية، واقفاً أمام البنوك يستجدي

النّاس، ويستمطر نوالهم بهيئته وصوته ولكنه يراه (الشّاعر) غير عابئ بالدّنيا الحقيرة، وأحياناً ملكاً لا يخشى أسيره(أبو شادي، أحمد، 2005، ص627):

ضَاحِكاً كَالرَّعدِ لَا يَعبأُ بالدُّنيَا الحَقِيرهْ

وَتَمطَّى كَمِلِيْكٍ لَمْ يَعدْ يْخشَى أَسِيرَهْ

خامساً: التّأمّل، والتّفكّر في حقائق الكون، والطّبيعة. "وهذا التّأمّل يتّجه إلى حقائق الكون بلمحة الصّوفي حيناً، وبعين المتفلسف حيناً آخر، وكلّ التّأملات كان يغلب عليها الجيشان العاطفيّ – المتّسق مع طبيعة هذا الاتّجاه (الرّومانتيكيّ)– لا الطّابع الذّهنيّ، الّذي يطغى على شِعر أمثال: شكري، والعقّاد، والمازني"(هيكل، أحمد، 1994، ص324). ولكنّ المدلول الفنّي للتّأمّل يعني:"التّجربة التّأمليّة الّتي يخوضها الأَديب؛ ليعطينا من خلالها صورة صادقة عن أفكاره، ومشاعره، ونبوءاته، وتصوّره للعالم من حوله، والوقوف على مدى توافقه مع ما حوله من قيم، أو رفضه لها، وصراعه في سبيل إيجاد عالم جديد مبدع"(الدّايم، صابر، 1993، ص34). فهذه التّجربة الإبداعيّة – لدى الشّاعر– تعكس صورة صادقة لفكر الشّاعر، وشعوره، ورؤيته للعالم، والإنسان، والحياة.

ومن نماذج هذا الشِّعر التّأمليّ في شِعر أحمد زكي أبو شادي، قوله(أبو شادي، أحمد، 2005، ص399):

وَمَا الشِّعـرُ إلَّا أَنْ يَكُـونَ هِدَايَةً فَتُرفَعُ أَحـلامٌ وَيُنعَـشُ جَامِـدُ

لَهُ وَاجِـبٌ كَالأَنْبِيـاءِ تَطَلُّعـاً إلـى غَايةِ الإنْسانِ إنْ زَلَّ عَائِدُ

فهو شاعر له فلسفة معيّنة، وله مواقف تجاه الكون، والإنسان، والحياة، فقد حدّد الرّسالة الّتي يجب على الشّاعر أن يؤدّيها، فالشّاعر كالأنبياء؛ رسالته خدمة البشريّة، وتبصيرها، ودفعها إلى الأمام، وهو من النّاحية الأدبيّة؛ عليه أن يبشّر بألوهة الجمال، والاندماج في الطّبيعة، وحريّة الفكر، ومجاهدة التّقاليد العفنة، وبذلك ينهج نهج أستاذه مطران خليل مطران (ت 1949م) الّذي كانت له مواقف واضحة من القضايا المهمّة الّتي تمسّ حياة البشر(نشأت، كمال، 1967، ص188–189).

ومن الحقائق الّتي كان يتأمّلها الشّاعر: حقائق الله –تعالى– والنّاس، والخير، والشّرّ، والخلود، والفناء، والحياة، والموت... ومن نماذج ذلك قوله في قصيدته: "الخالق الفنّان"، مصوّراً إبداع الخالق –عزّ وجلّ– في السّماء، والأرض، وما احتجب عنّا، وفي ذلك دلالة على أنّ في الكون الواسع إلهاً مدبّراً، وخالقاً بديعاً لطيفاً(أبو شادي، أحمد، 2005، ص61):

تَبـَارَكَ رَبـِّي مُبـدِعاً وَمُصَـوّراً لَقَدْ خَلقَ الآيَـاتِ كَالسِّحرِ لِلوَرَى

وَمَا شَاقَنِـي فِـي الكَونِ إلَّا خَفِيُّهُ فَإنّ وَرَاءَ الكَـونِ عَقــلاً مُـدبّرا

ويرى أنّ الدّنيا مليئة بالشّرور، وخيرها ممزوج بالشّرّ، والظّلم قد ضرب أطنابه على وجهها، ومغارمها أضعاف مغانمها. يقول في قصيدته: "قصّة الدّنيا" (أبو شادي، أحمد، 2005، ص381):

لِمَنْ هَذِهِ الدُّنْيَـا وَهَـذِي المَغَانمُ؟ أَلِلخَيرِ؟ إنَّ الخَيـرَ فِي النّاسِ غَارِمُ

إذَا أَقبَلَتْ دُنيَـاكَ لَا تَغتَـرِرْ بِهَـا وإنْ ظَلَمَـتْ لَمْ يَبقَ غَيـرُكَ ظَالِمُ

أَتَطلُبُ مِنهَـا أنْ تُجَـدِّدَ خَلْقَـهَا وَتَحْلُمُ؟ إنَّ الشَّـرَّ مَا أَنـْتَ حَالِمُ

المبحث الثّاني: الخصائص الفنّيّة في شِعر أحمد زكي أبو شادي

يُعدّ الشّكل الفنّيّ من أهمّ خصائص العمل الأدبيّ، فعليه تقوم بنيته الدّاخليّة المتماسكة، فالأفكار والمعاني، والقضايا السّياسيّة والاجتماعيّة، والثّقافيّة والفكريّة.... الّتي يدلي بها العمل الفنّيّ لا تتّضح جماليّاتها، إلّا من خلال الشّكل، ولا سيّما في المنجز الشِّعريّ، فالعناصر الشّكليّة فيه أشدّ وضوحاً، وأكثر توهّجاً، وفي هذه العناصر تتجلّى المتعة الحقيقيّة، واللّذة الفنّيّة.

وممّا لا شكّ فيه أنّه لا يمكن إدراك العمل الفنّيّ إلّا من خلال الشّكل، والصّورة الماديّة الّتي تتجسّد فيها المعاني، والأفكار، فالتّجربة الفنّيّة، والنّفسيّة لا تجذب القارئ، وتأسر قلبه وعقله معاً إلّا بعد أن تتجلّى في شكل فنّيّ. وخلاصة الأمر "فالمادّة، والصّورة شيئان لا ينفصلان فحسب، بل يعتمد كلّ على الآخر، ويمارس كلاهما على الآخر تأثيراً؛ فمادّة ما لن تكون ما هي عليه؛ دون صورة ما، وكذلك لن تكون صورة ما هي عليه دون مادّة ما."(برتليمي، جان، 1970، ص173).

أوّلاً: لّغة الشّاعر أحمد زكي أبو شادي

من يطّلع على شِعر أحمد زكي أبو شادي، يجد لغته مفعمة بالكلمات الموحية بالحزن، والأسى، والألم، والعذاب، والمعاناة الّتي تتناغم مع الحالة النّفسيّة للشّاعر؛ حيث تُحقّق الوظائف، والأهداف الّتي يسعى الشّاعر إلى تحقيقها، وتهيّئ الجوّ النّفسي للموقف، وتهيّئ – أيضاً– وجدان المتلقّي لتقبّل المعاني والإحساسات الّتي يتغيّا الشّاعر إيصالها للقارئ. يقول في قصيدته المعنونة بـ"يأس" كاشفاً عن يأسه حتّى من أحاسن النّاس، وغبْنهم له، فنفض يديه من عقلائهم، ومجانينهم على حدّ سواء"(أبو شادي، أحمد، 2005، ص521):

إنّـي يَئِسـتُ وَمِثلِـي غَيـرُ مُتَّهَمٍ مِـنَ الأَنَامِ ويأسِـي مِـنْ أَحَاسِنِهِم

إنْ أَنْصَفُونِـي فَغُبنِي عَينُ نِصفَتِهِم وَفِيمَ غُبْنِـي وَجَهـدِي غَيرُ غَابِنِهِم؟

قَدْ حِـرْتُ مـَا بَينَ تَجرِيحٍ لِعاقِلِهم كـَـــأنَّ عَاقِلَهُم نـــَدٌّ لِمـــَاجِنِهم

والمعجم اللّغويّ لدى أحمد زكي أبو شادي، يُبيّن بكلّ جلاء ووضوح أن أكثر الألفاظ دوراناً في شِعره لفظة: (اليتيم)، وما يُشتق منها، و(النّفي)، و(حرق، تحرّق)، و(النّور، النّار)، و(ظمأ)...(نشأت، كمال، 1967، ص167-173). وغيرهما من الكلمات الدّالة على الألم والحزن، والموحية بالقسوة، والألم، والموشية بالشّكوى، والتّضجر والألفاظ المتعلّقة بالطّبيعة، ومظاهرها في السّماء، والأرض، وكذلك ألفاظ الحبّ، والعشق، والهوى، فليس هذا بدعاً على شاعر تأثر تأثراً جليّاً بـ"مدرسة تقوم على فلسفة العاطفة، وتعنى بالفرد في آماله ونزعاته، وتحصر جلّ همّها في الكشف عن النّواحي الذّاتيّة...(هلال، محمّد، 1967، ص175). كما يمتاز معجمه اللّغويّ بوضوح ألفاظه، وإلفها، وبعدها عن الحوشيّ والغريب؛ ولذا لا يحتاج المتلقّي إلى قاموس من قواميس اللّغة لمعرفة معانيها، والوقوف على دلالاتها، ومثال ذلك قوله من قصيدته: "الوليد الجديد تحيّة عام 1952م"(أبو شادي، أحمد، 2005، ص616):

أَيُّهَا العَامُ الَّذِي وَافَى وَفِي النّفُوسِ عِطْرُ
شَاعِراً يُنشِدُ أَحْلَاماً ولِلأَحْلَامِ سُكْرُ
مَرْحَباً يَا أَيُّهَا الشّادِي الَّذِي نَجْوَاهُ شِعْرُ
يَا وَلِيداً هَشَّتِ الدُّنْيَا لَهُ وافْتَرَّ ثَغْرُ

ثانياً: الأسلوب

يُعدّ الأسلوب من أهمّ مقوّمات العمل الفنّيّ، ولعلّ طبيعة التّجربة الفنّيّة، والشّعورية، هي الّتي تملي على الأديب نوع الأسلوب، الّذي ينبغي استخدامه، فكما أنّ لكلّ خطاب لغوي أسلوبه الخاصّ به، كذلك لكلّ مبدع، أو كاتب أسلوبه الخاصّ به، فالأسلوب –بصورة عامّة–، هو: "الوسيلة اللّازمة لنقل، أو إظهار ما في نفس الأديب"(هيكل، أحمد، 1994، ص330). من: عاطفة، وفكرة، ومشاعر، وانفعالات... فمن أبرز الخصائص الأسلوبيّة في شِعر أحمد زكي أبو شادي ما يلي:

أوّلاً: التّشخيص

يُعدّ التّشخيص من أهمّ التّقنيات البلاغيّة الّتي تُنسج من خلالها الصّور الشِّعريّة؛ لذا يلجأ إليها الشّاعر للفت المتلقّي، وإدهاشه، وإثارته، ويقصد به: "نسبة صفات البشر إلى أفكار مجرّدة، أو إلى أشياء لا تتّصف بالحياة"(وهبة، مجدي، المهندس، كامل، 1984، ص102). وهذه التّقنية كثيرة الشّيوع في آثار الرُّومانسيّين، الّذين كانوا يتخيّلون الطّبيعة كلها في جبالها، وحقولها، وأشجارها، وصخورها... كائنات حيّة تشاركهم مشاعرهم القلبيّة، فتحزن لحزنهم، وتفرح لفرحهم، وكانوا في مقابل ذلك يُحسّون خريف الطّبيعة يعصر قلوبهم، وربيعها يملأ

نفوسهم فرحاً، وغبطة(عبد النّور، جبّور، 1984، ص67). والتّشخيص ضرب من الاستعارة، وميزته الفاضلة؛ أنك ترى الجماد ناطقاً، والأجسام الخرس مبينة(الجرجانيّ، عبد القاهر، 1991، ص43).

ومن نماذج ذلك في شِعر أحمد زكي أبو شادي، قوله من قصيدة له بعنوان:"أنداء الفجر"(أبو شادي، أحمد، 2005، ص35):

مِـن دُمُـوعِ النُّجُومِ مِنْ سَهرِ العـَـا شـِقِ صِيغَتْ وَمِـنْ رَجَـاءِ الحَياةِ
فـِـي ثُغـُـورِ الأَزهَارِ وَفـِـي أَلَقِ العُشْبِ وَفَوقَ الغُصُونِ تَحْيَا وَتَفْنَى
ويَعُـودُ الفَجـْرُ الوَفـِيُّ بِهـَا بَعـْـ ـثاً وَلكِـنْ تَعُـودُ تَمضِـي الضَّحيَّة

فقد شخّص الشّاعر النّجوم – في البيت الأوّل– فأنسنها، أي: جعلها إنساناً له عينان تذرفان الدّموع؛ لأمر ما، وفي هذه الصّورة النّاهضة على الاستعارة المكنيّة إيحاء بالحزن والأسى، الممزوجين بالأمل والرّجاء، كما يدلّ السّياق اللّغويّ في قوله: "من سهر العاشق صيغت ومن رجاء الحياة". كما أنسن الأزهار –في البيت الثّاني– فجعلها إنساناً/ امرأة/ كما يدل الدّال (ثغور)؛ حيث صوّر الأزهار بنساء على ثغورهن بقايا شراب، كما هو حال الأزهار، حيث يكون على أوراقها أنداء الفجر الّتي لا تلبث أن تذوب بعد أن تضاحكها الشّمس، وترسل أشعّتها الذهبيّة عليها. والاستعارة هنا مكنيّة حال الاستعارة السّالفة الذّكر، القائمة على حذف المشبّه به، وترك ما يدل عليه (ثغور) ويلحظ –أيضاً– في البيت الثّالث– تشخيص الشّاعر للفجر؛ إذ شبّهه بإنسان وفيّ له القدرة على المجيء والذّهاب/ ويعود الفجر الوفيّ. والاستعارة هنا مكنيّة؛ حيث حذف المشبّه به، وأبقى على ما يدلّ عليه(يعود).

ويقول –كذلك– من قصيدة معنونة بـ "حياتان"(أبو شادي، أحمد، 2005، ص37):

أُمِّي (الطَّبيعَةُ)! فِي نَجوَاكِ إسْعَادِي وَفـِي ابْتِعَادِي أُعَانِي دَهرِيَ العـَادِي
مَا بَالُـهَا هـِي صَفـْوِي وَحدَهَا فإذَا رَجَعـْتُ للنّـَاسِ لَمْ أَظفَرْ بإسْعَادِي

فالشّاعر يشخّص الطّبيعة؛ حيث يشبّهها بالأمّ الّتي يجد في مناجاتها الدّفء والحنان والمودّة والسعادة والهناء، ممّا يعانيه من أحزان وآلام، في حين لم يظفر من النّاس سوى الشّقاء .

ويقول –أيضاً– من قصيدة بعنوان "رسالة الرّبيع"(أبو شادي، أحمد، 2005، ص303):

بَسَمَ الـرَّبِيعُ بِـزَنْبَقٍ وَبِـوَرْدَةٍ وأَطلَّ يَهتُفُ مِـنْ ثُغُـورِ اللَّيْكِ
فـَأَجَبتُهُ بِتَحيّـَـةٍ عُلْـوِيّةٍ وَعَشِقتُ فِيهِ النُّـورَ مِـنْ خَديكِ
وَلـَمَحتُهُ مُتَهـَلّلاً مُتـَوَثِّبـاً فَرأيتُهُ عَـرَفَ الجَمـَالَ لَدَيْكِ
هَتفَ الرَّبِيعُ فَمَـنْ لمُهْجَةِ شَاعِرٍ بِمُنَى الرَّبِيعِ تُصـَاغُ مِـنْ شَفَتَيكِ

وهنا يشخّص الشّاعر الرّبيع، حيث شبّهه بإنسان يبتسم فرحاً وسروراً، وعلامات حبوره زنابقه المتورّدة، ونَور وروده، وثغور أزهار الباسمة، ولم يكتف الشّاعر بذلك، بل حاوره، وقدّم له التّحيّة العلويّة، فتسرّبت أفراح الرّبيع ومسرّاته إلى نفس الشّاعر، فصاغ هذه المشاعر، وتلك الأحاسيس شِعراً.

ثانياً: التّجسيم

وهو: "ميل معاكس للتّجريد، أي إبراز الماهيّات، والأفكار العامّة، والعواطف في صور، وتشابيه محسوسة، هي في واقعها رموز معبّرة عنها"(عبد النّور، جبّور، 1984، ص59). ومن هنا يتجلّى الفرق الواضح بين اللّغة التّقريريّة المباشرة، واللّغة الشِّعريّة الانزياحيّة المجازيّة، التي تنهض على الصّور التّخييليّة فـ"المعاني في الطّريقة الأولى تخاطب الذّهن والوعي، وتصل إليها مجرّدة من ظلالها الجميلة، وفي الطّريقة الثّانية تخاطب الحسّ والوجدان، وتصل إلى النّفْس من منافذ شتّى: من الحواسّ بالتّخييل والإيقاع، ومن الحسّ عن طريق الحواس، ومن الوجدان المنفعل بالأضواء، والأصداء، ويكون الذّهن منفذاً واحداً من منافذها الكثيرة إلى النّفْس، لا منفذها المفرد الوحيد."(قطب، سيّد، 2003، ص147).

والتّجسيم وسيلة من وسائل توضيح الأفكار والمعاني، وجلاء المشاعر الباطنيّة، فالقيمة الجمالية له تكمن في"تصوير ما في النّفْس، وتشكيل ما في القلب؛ حتّى تعلمه كأنك تشاهده، وإن كان يقع بالإشارة، ويحصل بالدّلالة، والأمارة، كما يحصل بالنّطق الصّريح، والقول الفصيح" (الباقلانيّ، محمّد، د.ت، ص244). فنقل المعنويّ؛ غير الحسيّ إلى الحسيّ الماديّ، هو هدف هذه التّقنية البلاغيّة، فضلاً عن توضيح الغامض.

ومن نماذج ذلك في شِعر أحمد زكي أبو شادي، قوله من قصيدة بعنوان "عبادة الحزن" (أبو شادي، أحمد، 2005، ص230- 231):

وَتَعُبُّ مِـنْ شِعْرِي رُوحِي صَبَابَتِي ... خَمْـراً مِـنَ الأَنْغَـامِ وَالآلَامِ
فَتَهزُّهـا مِثْلِـي وَتُسْكِـرُهَا كَمَا ... بِالفَـنِّ تَسْكَـرُ رِيشَةُ الرَّسَّـامِ
وتَخَيَّلتْنِـي عَاطِفـاً وَمُـوَاسِيـاً ... أَحْنُو بِكَـأْسِ هَـوىً وَكَأْسِ مُـدَامِ

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غَلبَتْ عَلَيَّ مِنَ الشُّجُـونِ عَوَاصِفٌ ... فَسَقَطْنَ فِـي كَنَفِ المُرُوجِ أَمَامِـي

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أَحْيِـا بِأَشْجَـانٍ تُمِيدُ رَوَاسِيـاً ... وَتُمِيـتُ كُلَّ رَجَـائِـيَ البسَّـامِ
فَأَعُبُّ كَأْسَ الحُـزْنِ وَحْدِي صَامِتاً ... وَالصَّمْتُ بَعْضُ عِبَـادةِ المُسَامِي

وَأَصـــُونُ عَنْهَا الحُـــزْنَ إنَّ شُبُوبَهُ حَرْقـــِي وَإنَّ رُكـــُودَهُ لِحُطـــَامـــِي

لقد جسّم الشّاعر –في البيت الأوّل– شِعره وهو من المعاني المجرّدة فشبّهه بالماء السّائغ السّلس العذب– وكذلك شبّهه بالخمر الّذي يبعث النّشوة في شاربه، ولكنها خمر من الأنغام والآلام، وليست الخمر الّتي تذهب العقل، وتأخذ بالألباب. فهذه الأنغام والآلام النّاجمة عن الحُبّ، والعشق، والهوى؛ هي أيضاً خمر تهزّ المحبوبة، وتسكرها كما هو حال الفنّ، الذي يُسكر ريشة الفنّان، فيأتي بما يدهش، ويؤثّر حسبما جاء في البيت الثاني. كما جسّم الهوى –في البيت الثّالث–، فجعله شراباً سائغاً لذيذاً تعبّ منه محبوبته، ولم يكتف بذلك، بل ذهب إلى أنّ هذه الكأس مترعة بالمدام. وكذا الحال في البيت الرّابع؛ إذ شبّه شجون الهوى، وذكريات الصّبابة المتّقدة بالعواطف الّتي تقتلع كلّ ما يقف أمامها، وكذا حال هذه الذّكريات عندما تهيج قلب المحبّ وعقله، فإنّها تفتك به. فهذه الأشجان الّتي يحيا فيها الشّاعر – كما يوضح البيت الخامس – كأنّها بركان، أو زلزال عظيم تميد منه الرّواسي الشّامخات، وتميت –أيضاً– كلّ الآمال، والرّجاء، فتتناثر كلّ هذه الآمال...، كأنّها أموات تناثرت أجسادهم على وجه الأرض. ويمضي الشّاعر في استغلال هذه السّمة الفنّيّة. ففي البيت السّادس يشبّه الحزن بالشّراب المرّ العلقم يعبّ منه برغم أنفه – صامتاً، فهو لم يجد سوى الصّمت، بل اتّخذه عبادة لعله يخفّف عنه ما به، ويسرّي عنه آلامه وأحزانه وهمومه، كما تفعل العبادة بالنسّاك، الّذين يلجؤون إلى العبادة، والانقطاع لها؛ ليخلّصوا أنفسهم من متاعب الحياة ومشاقّها. ولكنّه لا يظهر حزنه أمام محبوبته، فيصونه عنها، كأنه شيء ماديّ ثمين يحفظه صاحبه عمّا يُدنّسه، ويخدشه، رغم أنّ حزنه كالنّار المحرقة الّتي اتّخذت منه حطاماً لها. لقد لجأ الشّاعر إلى هذه التّقنية الفنّيّة، من أجل تقريب المعاني إلى النفوس، والتّأثير فيهم، وتقريب المعاني المجرّدة، من خلال تجسيمها، وجعلها أشياء ماديّة محسوسة، سهلة التّصوّر.

ويقول في قصيدة أخرى بعنوان"تحت الوسادة"(أبو شادي، أحمد، 2005، ص194):

خَبَّأْتُ أَغَانِي الحُبِّ تَحتَ وِسَادةٍ بِسَرِيرِهَا

فَكَأَنَّمَا خَبَّأْتُ بِهَا رُوْحاً تَحِنُّ لِنُورِهَا

وَاسْتَنْشَقَتْ مِنْهَا العَبِيرَ وَقَبَّلَتْ مَعْنَاهَا

فَرأَتْ بِهَا نُورَ الحَيَاةِ وَحظَّهَا وغِنَاهَا

وَمَضَتْ تُدَاعِبُ رَوحَ هَذَا الشِّعرِ فِي تَحْنَانهِ

وَكَأَنَّمَا قَلْبِي الَّذِي حَمَلَتْهُ بَينَ يَدَيْهَا

وَأَحسَّتِ اللَّهَبَ الحَنُونَ يَفِيضُ بَينَ سُطُورِهِ

وتَذوقُ مِلءَ الشِّعرِ طَعمَ غَرامِها وهمُومِها

تنهض هذه القصيدة– في تصوير مشاهدها، ورسم لوحاتها– على تقنية التّجسيم، فأغاني الحبّ، ونشيد العشق، والهوى –كما يشي البيت الأوّل– تشبه الشّيء المادي النّفيس، الّذي يحرص المرء على تخبئته، وصونه وحفظه، فلا يطمئن عليه إلّا أن يضعه تحت وسادته، وهكذا حال المحبوبة مع حبيبها الشّاعر؛ تحفظ حبّها وتصونه عمّا يشينه. ويتعمّق هذا المعنى ويُؤكّد في البيت الثّاني، والثّالث؛ حيث أغاني الحبّ الّتي تحاكي الرّوح من حيث أهميّتها، ونفاستها تنساب منها رائحة زكية فوّاحة تشبه العبير الّتي تعبق رائحته في كلّ مكان، وكأنها (أغاني الحبّ) عين ترى من خلالها المحبوبة مناحي الحياة، وتنظر عَبْرَها بهجتها، وسرورها؛ كما يوحي البيت الرّابع. وفي البيت الخامس يجسّم الشّعر، الّذي تغنّى فيه معاني الحبّ، وأشجانه على مسمع المحبوبة، بأوتار الآلة الموسيقيّة الّتي داعبتها أنامل محبوبته. وفي البيت السّادس يشبه قلبه؛ مجمع أحاسيسه، ومشاعره، وعواطفه بشيء مادي محسوس نفيس حملته المحبوبة بين يديها. فضاهت هذه الأحاسيس والمشاعر اللّهب الحنون، الّذي يدفئ ولا يحرق، كما حاكت أيضاً الماء العذب الزّلال، الّذي فاض بين سطور شِعره الأنيقة، الّتي شبّهها بالمكان الجميل الحسن؛ كما يوحي البيت السّابع. أما البيت الثّامن، فيتبدّى فيه تشبيه مناجاة أرواح المحبّين، وتبادلها لأحاديث الهوى بالطّعام اللّذيذ، الّذي يتذوّقه النّاس، فيستمرؤنه، ويتلذّذون به. فهذه القصيدة فيها من التّصوير الرّائع، والخيال الجديد، حتّى ليشعر القارئ بصور فتانة لم يألفها الأدب العربيّ، فهو لا يكتفي برسم الأطياف، وتصوير النّور فقط، بل يحلّل هذا الضّوء تحت المجهر، ولا غرو فهو رجل علم، وهذا أثر علم الضّوء في شِعره(عويضة، الشّيخ كامل، 1994، ص57).

الخاتمة:

خلصت الدّراسة إلى مجموعة من النّتائج، منها:

أوّلاً: تأثّر أحمد زكي أبو شادي بالمدرسة الرّومانتيكيّة من النّاحية الموضوعيّة؛ إذ طرح كثيراً من الموضوعات الّتي تناولها الشِّعر الرّومانتيكيّ، مثل: الطّبيعة، والمرأة، والشّكوى من الحياة، والتّذمّر من تقلباتها وصروفها، واستعادة الذّكريات الّتي تترك المرء نهب اللّهفة والشّوق والحنين. ولاغرو أن يتأثّر أحمد زكي أبو شادي بهذه المدرسة، فقد أمضى مدّة طويلة من الزّمن في إنجلترا، واطّلع على أهمّ نتاج شعرائها في لغتهم الأمّ. فمن يتأمّل شِعره يجد الاهتمام بالطّبيعة؛ يناجيها، ويبثّها آلامه، وأحزانه، كأنّها أمّه الحنون، وكذلك الاهتمام بالمرأة الّتي اتّخذها ملاذاً؛ يفرّ إليها من عذاب الحياة، وقسوتها إلى غير ذلك من الموضوعات الّتي يلحظها القارئ لدى الشّعراء الرّومانتيكيّين.

ثانياً: يُلحظ– كذلك– تأثّر شِعره بهذه المدرسة من حيث الخصائص الفنّيّة، فجاءت لغته سهلة واضحة،لا يجد المتلقّي صعوبة في فهم معانيها، كما جاء معجمه الشِّعريّ مفعماً بالكلمات الدّالة على الحزن والأسى، والألم،

والعذاب، والمعبّرة– في الآن ذاته– عن تجربته الشِّعريّة، والشّعوريّة الّتي انتابته، أو مرّ بها، ومن ثمّ فقد حظيت بقبول حسن لدى المتلقّي، وربّما أخذته اللّوعة، وامتلكه الحزن والأسى، وهو يقرأ قصائده. فلغته فرديّة ذاتيّة؛ مستقاة من مشاعره وعواطفه. أمّا صوره الشِّعريّة فقد نهضت على تقنية التّشخيص؛ وذلك من أجل إضفاء الحياة على الجمادات؛ لتقريب الصّورة إلى ذهن المتلقّي، وكذلك تقنية التّجسيم الّتي تقدّم المعنويّات في صور المادّيات؛ لجعلها في متناول فهم المتلقّي، وذهنه.

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"Measuring and Analyzing the Impact of the Relationship between Economic Feasibility Studies and Public Investment in Iraq for the Period 1980–2023"

قياس وتحليل اثر العلاقة بين دراسة الجدوى الاقتصادية والاستثمار العام في العراق للمدة 1980–2023

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Abstract

Public investment is considered one of the key pillars that countries strive to achieve through various tools, regardless of their political or economic philosophies and available resources. Therefore, this study aims to analyze the reality, significance, and impact of economic feasibility studies on public investment, and to identify the challenges and opportunities that influence investment decision-making with the support of such studies. The importance of this study lies in both its academic and practical dimensions. Regardless of the scale of a project, conducting a feasibility study is essential. In Iraq, the investment process faces a range of challenges across different economic sectors due to various reasons, some of which are related to the structure of the Iraqi economy, while others stem from planning methodologies and resource management. Corruption also poses a significant barrier to project completion in terms of quality and efficiency, which has weakened the investment climate. Most investment projects implemented in Iraq have not been thoroughly studied or analyzed according to the requirements of feasibility studies, leading to substantial losses and wasted resources due to poor planning and inappropriate project selection. Additionally, the investment environment in Iraq has been unstable since 2003, largely due to weak institutions and the lack of experience among some administrative leaders. Based on this, the research is structured into two sections: the first discusses the concepts of economic feasibility studies and public investment, while the second measures the impact of feasibility studies on public investment over the period 1980–2023. The study concludes with several key findings and recommendations

Keywords: Economic Feasibility Study, Investment, Value Added of Economic Sectors, Inflation.

المستخلص:

يعد الاستثمار العام أحد المرتكزات التي تسعى الدول الى تحقيقها بمختلف الأدوات بغض النظر عن الفلسفة السياسية والإقتصادية للدولة وإمكانياتها، لذا تهدف هذه الدراسة الى تحليل واقع وأهمية وتأثير دراسة الجدوى الاقتصادية على الإستثمار العام وبيان التحديات والفرص التي تقف وراء تعزيز القرار الاستثماري بدعم من دراسة الجدوى الإقتصادية، وتبرز أهمية الدراسة بجانبيها الأكاديمي والتطبيقي، وبغض النظر عن مستوى المشروع فلابد من إجراء دراسات جدوى الإقتصادية، تواجه عملية الاستثمار في العراق جملة من التحديات في مختلف القطاعات الإقتصادية، وعلى اختلاف الأسباب والدوافع ، منها يتعلق في بنية الإقتصاد العراقي وبعضها يتعلق بمنهج التخطيط وإدارة الموارد ، كما يشكل الفساد أحد المظاهر التي تعرقل إنجاز المشاريع من حيث الجودة والكفاءة مما أضعف المناخ الإستثماري ، كما ان أغلب المشاريع الإستثمارية التي تم تنفيذها في العراق لم تدرس بشكل دقيق أو تحلل وفق متطلبات دراسة الجدوى ، مما يعرضها الى خسائر كبيرة وضياع الكثير من الموارد من جراء سوء التخطيط واختيار المشروع المعني، كما ان البيئة الإستثمارية في العراق بعد 2003 اضطربت بسبب ضعف المؤسسات وقلة خبرة بعض القيادات الإدارية، وعلى هذا الأساس جاء هذا البحث بمبحثين، يتناول المبحث الأول مفهوم دراسة الجدوى الإقتصادية ومفهوم الاستثمار العام ، أما المبحث الثاني قياس أثر دراسة الجدوى الاقتصادية على الاستثمار العام للمده 1980-2023 ، وخلص البحث الى عدد من الإستنتاجات والتوصيات.

الكلمات المفتاحية: دراسة الجدوى الاقتصادية، الاستثمار، القيمة المضافة للقطاعات الاقتصادية، التضخم.

بحث مستل من اطروحة الدكتوراه الموسومة " أثر دراسة الجدوى الاقتصادية على الاستثمار العام في العراق :دراسة نظرية قياسية".

المقدمة

تعد الدولة هي الجهة المسؤولة عن تحقيق برامج التنمية وتوظيف الموارد المتاحة من أجل توفير كل متطلبات الرفاهية، سواء كان ذلك عبر مؤسساتها أو من خلال المشاركة مع القطاع الخاص والمختلط، وتوسعت وظائف الدولة مع تطور المجتمعات وطبيعة الاحتياجات ، فضلا عن ظهور تحديات مختلفة في بيئة الأعمال منها داخلية وبعض منها خارجية، ويعد الاستثمار من اكثر الادوات الفعالة في تحقيق التنمية وانجاز المشاريع في مختلف نواحي الحياة وتطوير القطاعات وتوفير البنى التحتية وخصوصا المشاريع الضخمة او الاستراتيجية، لذا تتولى الدولة التخطيط وتنفيذ المشاريع العملاقة من خلال الاستثمار العام، لذا اصبح من الضروري تهيئة عوامل الاستثمار وتهيئة بيئة ومناخ استثماري واستقرار امني وبنية تحتية تمثل عوامل تسهم في جذب الاستثمار من جانب وتفيد في نجاح برامج التنمية من جانب اخر. ولا شك ان هناك علاقة بين الاستثمار والتنمية، لقد أصبح موضوع الاستثمار من الموضوعات التي تحتل مكانة مهمة وأساسية في اولويات الدراسات الاقتصادية والمالية والمصرفية والإدارية وغيرها من التخصصات الهيكلية التي شهدتها المجتمعات المتقدمة هذه التطورات صاحبها تطور مماثل في دراسة الاستثمار ومجالاته المختلفة، وبغض النظر عن نوع ومصدر وطبيعة الاستثمار لابد من توفير كل متطلباته ومنها دراسة الجدوى الاقتصادية للمشاريع، كون انها تمثل مجموعة من الدراسات العلمية التي يتم إعدادها بدقة للحكم على صلاحية أي مشروع استثماري مقترح، وتقييم إمكانية نجاحه من عدمها عن طريق تحليل جوانبه القانونية والتسويقية والمالية والفنية والبيئة وغيرها، كما تسهم دراسة الجدوى في التطبيق العملي لخطة المشروع من أجل معرفة مدى القدرة على المُضي قُدمًا في المشروع أم لا، وذلك بخلاف خطة العمل (Business plan) التي تفترض أنَّ الفكرة ناجحة، وتمنح خطوات تتمكن من خلالها من اتخاذ الإجراءات اللازمة للتنفيذ.

أولًا: مشكلة البحث

ما هي علاقة دراسات الجدوى الاقتصادية بكفاءة ونجاح الاستثمار العام في العراق خلال المدة (1980–2023)؟

ثانيًا: فرضية البحث

توجد علاقة ذات دلالة إحصائية بين جودة دراسات الجدوى الاقتصادية ومستوى كفاءة الاستثمار العام في العراق.

ويتفرع عنها فرضيات فرعية:

1. توجد علاقة معنوية بين دراسات الجدوى الاقتصادية والاستثمار العام في القطاع الزراعي.

2. توجد علاقة معنوية بين دراسات الجدوى الاقتصادية والاستثمار العام في القطاع الصناعي.

3. توجد علاقة معنوية بين دراسات الجدوى الاقتصادية والاستثمار العام في القطاع النفطي.

4. توجد علاقة معنوية بين دراسات الجدوى الاقتصادية والاستثمار العام في القطاع الخدمي.

ثالثًا: أهمية البحث

1. تسليط الضوء على دور دراسات الجدوى الاقتصادية في ترشيد القرار الاستثماري الحكومي.

2. الكشف عن مدى التزام المؤسسات الحكومية في العراق بإجراء دراسات جدوى فنية واقتصادية قبل تنفيذ المشاريع.

3. بيان أثر غياب الجدوى الدقيقة على كفاءة الاستثمار العام وهدر الموارد.

4. تقديم تحليل قياسي يعزز من فهم العلاقة بين مخرجات الجدوى الاقتصادية والمؤشرات الاستثمارية القطاعية.

رابعًا: أهداف البحث

1. تحليل العلاقة بين دراسات الجدوى الاقتصادية وكفاءة الاستثمار العام في العراق.

2. استخدام أدوات التحليل القياسي لاختبار مؤشرات الجدوى الاقتصادية على تكوين رأس المال الثابت الحكومي.

3. تحديد الفجوات التي تعيق تفعيل دراسات الجدوى في السياسات العامة.

4. تقديم توصيات عملية لتعزيز استخدام الجدوى الاقتصادية في مشاريع الاستثمار العام.

خامسا: منهجية البحث

اتبعت الباحثة المنهج التجريبي بوصفه الأنسب لقياس أثر دراسة الجدوى الاقتصادية على الاستثمار العام، نظراً لقدرته على تحليل البيانات واختبار الفرضيات باستخدام الأدوات الكمية.

أولًا: مفهوم دراسة الجدوى الاقتصادية وأهميتها

تعرف دراسة الجدوى بشكل عام بانها مجموعة من الاجراءات المالية والفنية التي تسهم في اعداد مؤشرات لاتخاذ القرار بقبول المشروع من عدمه في ضوء التكلفة والعوائد والمخاطر والنتائج. (معروف، 2010، ص14)

كما وتعرف بانها سلسلة من الدراسات التي تقوم على اقتراحات سليم ، وتسعى إلى تحقيق أهداف عدة، وتنتهي باتخاذ قرار يحدد الموقف النهائي للمشروع وتشغيله أو رفضه، وذلك اعتمادا على مجموعة من المعايير تنطلق من مبدأ التكلفة لمعرفة مقدرة هذا المشروع على بلوغ الأهداف المرجوة من انشائه. (الكناني: 2020، ص36)

ومن خلال تعريف مفهوم دراسة الجدوى الاقتصادية تتضح أهمية دراسات جدوى المشروعات وذلك باعتبارها تساعد وتساهم بإيجابية في تحقيق الأهداف التالية: (Schoemann:2018,p255 & Mulkey)

1. ترشيد عملية اتخاذ القرارات الاستثمارية: تعد دراسات الجدوى أداة فعالة يمكن استخدامها لترشيد عملية اتخاذ القرارات الاستثمارية، حيث تجعلها عملية متكاملة الأبعاد تأخذ كل العوامل والمتغيرات المؤثرة على أداء المشروع، الأمر الذي يؤدي الى الدقة في حساب المخاطر المتوقعة،
2. زيادة كفاءة وفعالية عمليات التخطيط للمشروع: تساعد دراسات الجدوى في إعداد الخطط والبرامج الخاصة بالمشروع وذلك خلال مراحل الإعداد والتنفيذ والمتابعة، كما تساعد أيضا في إعداد الخطط والبرامج المتعلقة بتوفير السيولة المالية والآلات والمعدات والعمالة والتدريب، وتخطيط عمليات الإنتاج.
3. تحقيق أفضل تخصيص ممكن للموارد المتاحة: تفيد دراسات الجدوى في تحقيق أفضل تخصيص ممكن للموارد المتاحة والتي غالبا ما تتصف بالندرة النسبية وذلك عن طريق تحديد أولويات المشروعات المتعددة التي تفيد الاقتصاد القومي وتخصيص الموارد المتاحة طبقا لهذه الأولويات.

ثانيا: مفهوم الاستثمار العام واهميته

الاستثمار مهما كان نوعه فهو المرتكز بالتنمية بل يعد من ادوات الدولة في توظيف مواردها وهناك نوع من الاستثمار خاص بالحكومة يطلق عليه بالاستثمار العام وقد يكون من قبل جهات اخرى غير حكومية، وهذا يسمى بالاستثمار الخاص، ويختلف مفهوم الاستثمار العام باختلاف المدرسة الاقتصادية التي تنظر

إليه، ولكنه بشكل عام يشير إلى عملية تخصيص الموارد العامة لتحقيق أهداف تنموية طويلة الأجل. (Fujii & Kozuka: 2013,p.35)

وبشكل عام يمكن تعريف الاستثمار العام بانه الاستثمار الذي تقوم به الحكومة لتنفيذ الخطط الاقتصادية والاجتماعية والثقافية وغيرها من الخطط التي تخدم أهداف الدولة، فهو يشمل كلّ ما ينفق لتكوين رأس المال الثابت الهادف لزيادة الطاقة الانتاجية للبلد والتي تخرج بطبيعتها عن قدرات القطاع الخاص مثل مشروعات البنى الارتكازية المتمثلة بالطرق، والجسور والسدود، واستصلاح التربة، وانتاج وتوزيع الطاقة الكهربائية، وشبكات الصرف الصحي، ومحطات تنقية وتوزيع الماء الصالح للشرب، وبناء المطارات والسكك الحديدية وسواها، وقد يمتد ليشمل المصانع والمرافق السياحية وحسب فلسفة الدول.(P 127 Scott &Chan: 2000,)

يعد تنوع الاستثمار العام أمرًا بالغ الأهمية لتحقيق التنمية الاقتصادية الشاملة والمستدامة، يمكن بلورة اهمية الاستثمار العام من خلال التوجهات الاتية:(Petrović, Arsic 2021: p580)

1. **محرك للنمو الاقتصادي:**

- **زيادة الطلب الكلي** :يساهم الاستثمار العام في زيادة الطلب على السلع والخدمات، مما يحفز الإنتاج ويوفر فرص عمل جديدة.
- **تحسين الإنتاجية** :يستثمر في البنية التحتية الحديثة والتكنولوجيا المتقدمة، مما يزيد من كفاءة الإنتاج ويخفض التكاليف.
- **توفير بيئة استثمارية جاذبة** :يجذب الاستثمار الخاص من خلال توفير البنية التحتية اللازمة وتقليل المخاطر.

2. **تحسين مستوى المعيشة:** (فليفل:2022، ص22)

- **توفير الخدمات الأساسية** :يوفر الاستثمار العام خدمات أساسية مثل التعليم والصحة والمياه والصرف الصحي، مما يحسن نوعية الحياة للمواطنين.
- **تقليل الفقر** :يساهم في الحد من الفقر من خلال توفير فرص العمل وتوزيع الدخل بشكل أكثر عدالة بين افراد المجتمع.

- **تحسين البنية التحتية** :يساهم في تطوير البنية التحتية، مما يسهل حركة الأشخاص والبضائع ويحسن جودة الحياة.

3. **التنمية المستدامة:** (عبود:2022، ص86)

- **حماية البيئة** :يستثمر في مشاريع الطاقة المتجددة والحفاظ على البيئة، مما يساهم في تحقيق التنمية المستدامة.
- **التكيف مع التغيرات المناخية** :يدعم مشاريع التكيف مع التغيرات المناخية، مثل بناء السدود وحماية السواحل.

4. **التكامل الاقتصادي:** (الدليمي:2023,ص152)

- **ربط المناطق** :يساهم في ربط المناطق المختلفة داخل الدولة، مما يعزز التكامل الاقتصادي.
- **تعزيز التجارة والاستثمار** :يسهل حركة التجارة والاستثمار من خلال توفير البنية التحتية اللازمة.

5. **البحث والتطوير:**

- **دعم الابتكار** :يستثمر في البحث والتطوير، مما يعزز الابتكار ويساهم في تطوير صناعات جديدة.
- **تحسين القدرة التنافسية** :يزيد من القدرة التنافسية للاقتصاد على المستوى العالمي.

6. **العدالة الاجتماعية:** (الدليمي:2023، ص33)

- **توزيع عادل للثروة** :يساهم في توزيع عادل للثروة من خلال الاستثمار في المناطق المحرومة وتوفير الخدمات الأساسية لجميع المواطنين.
- **تمكين الفئات الضعيفة** :يدعم الفئات الضعيفة في المجتمع، مثل النساء والشباب والأشخاص ذوي الإعاقة.

ثالثا: العلاقة بين دراسة الجدوى الاقتصادية والاستثمار العام

(Kratochwill& Gettinger:2021, P259)

الاستثمار هو استغلال الموارد المتاحة في استخدامات محددة بهدف تحقيق عائد ملائم في المستقبل وتتمثل علاقة الجدوى الاقتصادية بالاستثمار بدراسة كيفية استغلال الموارد في الاستخدامات المقترحة بهدف الحصول على مؤشرات مسبقة عن المنافع والعوائد المتوقعة من هذا الاستغلال خاصة وأنه لا يمكن عادة استرداد الموارد المستغلة من دون حدوث خسائر ويتطلب القيام بذلك تجميع بيانات أساسية عن الاستثمار المقترح ودراستها وتحليلها بطريقة منهجية تمكن من الحصول على المؤشرات المستهدفة لتقييم الاستثمار. وقد

تحمل العلاقة بين الجدوى الاقتصادية والاستثمار مسميات عديده ولكن مهما اختلفت هذه المسميات الا انها تشير إلى مضمون واحد وهوه تقييم واختبار صلاحية المشروع المقترح من جوانب متعددة بهدف اتخاذ قرار بتنفيذها. ولعل التأمل بالمفاهيم الأساسية لدراسات الجدوى الاقتصادية يكشف النقاب عن أن تلك الدراسات هي القاعدة التي يتم على أساسها صناعة واتخاذ القرار الاستثماري الرشيد إذ يستند القرار الاستثماري الرشيد على مبدأ الرشادة الاقتصادية (Economic Rationality) الذي يقوم عليه علم الاقتصاد اساساً إذ يتوجب على منفذ القرار الاستثماري أن يتسم بالقدرة على حسن التصرف بالموارد المتاحة في حسن استغلال الموارد المتاحة أفضل استغلال في النشاطات والمشروعات التي تعطي أكبر عائد ممكن من الاستثمار، ومن هنا يمكن القول بأن القرار الاستثماري الرشيد هو ذلك القرار الذي يقوم على اختيار البديل الاستثماري الذي يعطى أكبر عائد استثماري من بين بديلين على الأقل والمبني على مجموعة من دراسات الجدوى التي تسبق عمليه الاختيار، ومما يتضح أن دراسة الجدوى الاقتصادية لها علاقة وثيقة بالاستثمار إذ لا يمكن أن يقام استثمار ناجح من دون دراسة جدوى تدرس كل جوانبه قبل القيام به وذلك للتأكد من انه استثمار ناجح ومحقق الهدف القائم لأجله هو تحقيق عوائد جيده وبتكاليف قليلة ومعرفة دوره في تدعيم الاقتصاد.

المبحث الثاني: تحليل وقياس أثر العلاقة بين دراسة الجدوى الاقتصادية والاستثمار العام

في هذا المبحث سيتم تحليل وقياس متغيرات دراسة الجدوى الاقتصادية و الاستثمار العام من خلال استخدام بعض الاساليب والنماذج من الاقتصاد القياسي، وذلك من خلال محاولة قياس وتحليل العلاقة بين سياسة متغيرات الدراسة ومدى تأثير نتائج دراسة الجدوى، والاستثمار في العراق وقياس كفاءتها في العراق ابتداء لابد من اجراء اختبار جذر الوحدة للتأكد من سكون السلاسل الزمنية للمتغيرات المدروسة باستخدام مجموعة من اختبارات السكون واختبار جذر الوحدة باستخدام البرنامج الاحصائي (EViews 10)، تسهم تلك الاختبارات في تجنب الوقوع في مشكلة الانحدار الزائف، فضلا عن أنها تساعد على تحديد العلاقة السببية بين المتغيرات وتحديد درجة تكامل كل متغير، ومن ثم تحديد الانموذج القياسي الملائم وكذلك تحديد العلاقات الطويلة والقصيرة الأجل ، وفي هذا المبحث ايضا سيتم عرض وبيان النماذج القياسية، على وفق المنهجية الحديثة للتكامل المشترك.

المنهجية والاساليب والنماذج القياسية المعتمدة

يعد الاسلوب القياسي أحد الادوات التي يركن اليها الباحث الاقتصادي لغرض التوصل الى استدلال كمي يجيب من خلاله على التساؤلات التي تم طرحها في مشكلة الدراسة فضلاً عن اثبات الفرضية او نفيها بناء على معطيات النموذج والاسلوب القياسي المتبع.

بالتالي لا تكاد تخلو منه الدراسات التطبيقية في اطار السياسات والتوقعات الاقتصادية على الصعيد الكلي، وفي ظل التطورات التي يشهدها الاقتصاد القياسي على مستوى البرامج و النماذج القياسية تم الاستعانة في هذا البحث ببرنامج (Eviews 10) وهو من احدث البرامج في مجال الاقتصاد القياسي ، مستعيناً بأسلوب التكامل المشترك باستخدام نموذج الانحدار الذاتي للإبطاء الموزع **(ARDL) Autoregressive Distributed Lag Estimate**. أن الاسلوب القياسي يتضمن تطبيقات الاحصاء الرياضي على البيانات الاقتصادية للوصول الى النماذج التي يكونها الاقتصاد الرياضي من اجل التوصل لنتائج رقمية. (محمد سالم: 2014، ص11)

إذا موضوع الاقتصاد القياسي هو التعبير الكمي عن ظاهرة اقتصادية معينة والعوامل التي تتحكم فيها وتقديمها بشكل علاقات رياضية (معادلات، دوال،... الخ) تكون متغيراتها عبارة عن مقادير اقتصادية، بصورة أخرى تحويل المشكلة الاقتصادية من شكلها النظري العام الى شكل كمي تحكمه علاقات كمية رياضية يمكن أن تعالج باستعمال الاساليب الاحصائية والرياضية. (علوش:2010، ص27)

يتأثر الاستثمار العام عموما بالعديد من المتغيرات والعوامل الداخلية والخارجية، وسنخص في دراستنا القياسية دراسة أثر الجدوى الاقتصادية على الاستثمار العام في الاقتصاد العراقي خلال الفترة (1980–2023)، حيث اعتمدنا على بيانات سنوية بعدد 43 مشاهدة لكل متغيرة محسوبة، تم الحصول على البيانات من النشرات والتقارير السنوية الصادرة عن الهيئات الرسمية ذات الاختصاص، وباستخدام نموذج ARDL.

تحديد متغيرات ونموذج الدارسة ودارسة الاستقرارية.

نتناول هنا وصف تحليلي لمتغيرات البحث وفق الهدف من الدراسة والمتمثل في استقصاء تأثير أثر الجدوى الاقتصادية على الاستثمار العام في الاقتصاد العراقي، سنقوم في هذا الجزء بتحديد متغيرات الدارسة، كما سنستعين ببرنامج القياس الاقتصادي والسلاسل الزمنية EVIEWS10 في معالجة المتغيرات وتقدير النموذج ودراسة الاستقرارية، ولقد تم اختيار متغيرات الدراسة بما يتوافق مع النظرية الاقتصادية والدراسات السابقة، فقد أثبت في إطار دراسات عديدة دور المتغيرات المكونة للنموذج المختار في تفسير العلاقة المدروسة ،

تشتمل الدراسة على بيانات سلسلة زمنية تغطى الفترة (1980– 2023)، وقد تم اختيار هذه الفترة طبقا لمعيار توافر البيانات للمتغيرات محل الدراسة لكل السنوات وما لهذه الفترة من تنوع للأحداث والأزمات الاقتصادية العالمية والمحلية التي مر بتأثيراتها الاقتصاد العراقي وكذلك التغير المحدث في النظام الاقتصادي العراقي خلال هذه الفترة.

نموذج الدراسة:

يمكن وصف النموذج القياسي في العلاقة بين الاستثمار العام كمتغير تابع، ودراسة الجدوى الاقتصادية كمتغير مستقل، ويمكن وضع العلاقة كما في الدالة التالية:

$$\boldsymbol{NE_t = \propto_1 + \beta_1 NVA_t + \beta_2 NVI_t + \beta_3 OILRE_{t_t} + \beta_4 TRD_t + \beta_5 INFO_t + \beta_6 NVSR_t + U_t}$$

حيث: –

– $(\boldsymbol{NE_t})$: يمثل المتغير التابع الاستثمار العام ويعبر عنه بإجمالي تكوين رأس المال الثابت (% من إجمالي الناتج المحلي) في السنة t .

– $(\propto_1)$, (β_1) , (β_2) , (β_3) , (β_4) , (β_5) , (β_6): هي ثوابت الدالة .

المتغيرات المستقلة والتي تمثل الجدوى الاقتصادية في الاقتصاد العراقي: –

– (NVA_t): تمثل المتغير المستقل للقيمة المضافة في قطاع الزراعة (% من إجمالي الناتج المحلي) في السنة t.

–(NVI_t): تمثل المتغير المستقل للقيمة المضافة في قطاع الصناعة (% من إجمالي الناتج المحلي) في السنة t.

–$(OILRE_t)$: تمثل المتغير المستقل لإيرادات الموارد النفطية (% من إجمالي الناتج المحلي) في السنة t.

–(TRD_t): تمثل المتغير المستقل اجمالي التجارة (% من إجمالي الناتج المحلي) في السنة t.

–$(INFO_t)$: تمثل المتغير المستقل التضخم ، انكماش الناتج المحلي الإجمالي (النسبة المئوية السنوية) في السنة t.

–$(NVSR_t)$: تمثل المتغير المستقل لخدمات، القيمة المضافة في قطاع الخدمات (% من إجمالي الناتج المحلي) في السنة t.

– (U_t) : متغير عشوائي يعكس كل العوامل الأخرى التي لم تدرج في النموذج .

يوضح الجدول (1) الملخص الاحصائي للمتغيرات المستخدمة في التقدير

جدول رقم 1 نتائج التحميل الوصفي للمتغيرات المستخدمة في التقدير (1980–2023)

	NE	INFO	NVA	NVI	NVSR	OILRE	TRD
Mean	15.69493	33.49899	8.747075	57.69024	35.16848	38.13186	69.12565
Median	14.37314	14.02514	6.934759	55.83997	36.81677	39.01745	68.98621
Maximum	51.40888	396.438	20.58514	84.79598	54.81965	65.1576	154.2345
Minimum	0.734463	-30.19965	1.635052	37.74911	10.85912	9.433085	0.020999
Std. Dev.	12.2766	78.1354	5.406866	11.59665	12.1444	15.14856	39.74543
Skewness	1.217594	3.241541	0.777805	0.352545	-0.340461	0.005562	-0.030591
Kurtosis	4.357435	14.21062	2.37935	2.446286	1.998325	2.040022	2.601745
Jarque-Bera	14.25008	307.4653	5.142734	1.473545	2.689515	1.68975	0.297643
Probability	0.000805	0.00000	0.076431	0.478656	0.260603	0.429611	0.861723
Sum	690.5769	1473.956	384.8713	2538.371	1547.413	1677.802	3041.529
Sum Sq. Dev.	6480.74	262521	1257.071	5782.74	6341.922	9867.589	67927.05
Observations	44	44	44	44	44	44	44

المصدر: إعداد الباحثة من واقع تحليل نموذج الدراسة باستخدام برنامج Eview.10

أ. الاستثمار العام (NE):

متوسط الاستثمار العام: 15.69%

الوسيط: 14.37%

الحد الأعلى: 51.41%

الحد الأدنى: 0.73%

الانحراف المعياري: 12.28%

الالتواء: 1.22 (ميل نحو اليمين)

التفلطح: 4.36 (وجود قيم متطرفة عالية)

اختبار جاركي–بيرا: 14.25 (P=0.0008) ← التوزيع غير طبيعي

مجموع الاستثمار: 690.58%

مجموع مربعات الانحرافات: 6480.74

التحليل الاقتصادي: يوضح التغيرات الحادة في توجهات الحكومة في الإنفاق الرأسمالي، ما بين فترات انتعاش وأخرى ركود أو أزمات.

ب. التضخم (INFO):

المتوسط: 33.50%

الوسيط: 14.03%

الحد الأعلى: 396.44% ← مؤشر على التضخم المفرط

الحد الأدنى: −30.20% ← انكماش شديد

الانحراف المعياري: 78.14

الالتواء: 3.24

التفلطح: 14.21

اختبار جاركي–بيرا: 307.47 (P=0.000) ← التوزيع بعيد عن الطبيعي

التحليل الاقتصادي: يشير إلى حالة عدم استقرار نقدي واضح أثّرت بشدة على استقرار الاقتصاد الكلي والسياسات الاقتصادية.

ج. القيمة المضافة في القطاع الزراعي (NVA):

المتوسط: 8.75%

الوسيط: 6.93%

الحد الأعلى: 20.59%

الحد الأدنى: 1.63%

الانحراف المعياري: 5.41

الالتواء: 0.78 (ميل طفيف نحو اليمين)

التفلطح: 2.37

اختبار جاركي–بيرا: 5.14 (P=0.076) ← التوزيع قريب من الطبيعي

التحليل الاقتصادي: يعكس تقلبات في الأداء الزراعي نتيجة لمتغيرات بيئية واقتصادية، مما أثر على استدامة مساهمته.

د. القيمة المضافة في القطاع الصناعي (NVI):

المتوسط: 57.69%

الوسيط: 55.84%

الحد الأعلى: 84.80%

الحد الأدنى: 37.74%

الانحراف المعياري: 15.97

الالتواء: 0.35

التفلطح: 2.45

اختبار جاركي–بيرا: 1.47 (P=0.23) ← التوزيع طبيعي

التحليل الاقتصادي: يؤكد على أن القطاع الصناعي كان ركيزة أساسية في الاقتصاد الوطني، وإن تفاوتت مساهمته بسبب المتغيرات الاقتصادية.

جدول رقم 2 تقدير النموذج بطريقة المربعات الصغرى

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-81.94162	151.4224	-0.541146	0.5917
NVA	0.8989	1.294761	0.69426	0.4919
NVI	0.71437	1.536242	0.465012	0.6446
NVSR	1.319141	1.441863	0.914887	0.366200
OILRE	-0.165786	0.148069	-1.119655	0.2701
TRD	0.122247	0.063493	1.925361	0.0619
INFO	0.001216	0.031408	0.038712	0.9693

المصدر: إعداد الباحثة من واقع تحليل نموذج الدراسة باستخدام برنامج (Eview.10)

أولًا: التفسير العام للثابت

إحصائيًا: يشير معامل الثابت السلبي (−81.94) إلى قيمة سالبة للاستثمار العام عندما تكون جميع المتغيرات المستقلة صفرًا، إلا أن عدم دلالته الإحصائية (t = −0.541، p = 0.5917) يعكس ضعف إسهام العوامل غير المدرجة أو التأثر بالتباين العشوائي.

اقتصاديًا: يُعد الثابت مؤشرًا للعوامل غير المشمولة في النموذج، كضغوط مالية أو سوء تخصيص الموارد، مما يستدعي مراجعة السياسة المالية وتحسين أساليب اتخاذ القرار الاستثماري.

ثانيًا: القيمة المضافة في الزراعة (NVA)

إحصائيًا: معامل الزراعة (0.8989) غير دال إحصائيًا (p = 0.4919)، مما يعكس ضعف العلاقة وعدم استقرار مساهمة القطاع.

اقتصاديًا: يشير ضعف التأثير إلى الحاجة إلى تطوير البنية التحتية الزراعية وتعزيز مساهمة القطاع عبر برامج وطنية ودراسات جدوى دقيقة.

ثالثًا: القيمة المضافة في الصناعة (NVI)

إحصائيًا: العلاقة ضعيفة وغير معنوية ($p = 0.6446$)، ما يعكس تذبذب أداء القطاع الصناعي.

اقتصاديًا: توضح النتائج ضعف مساهمة الصناعة في الاستثمار العام، وقد تُعزى إلى توقف المشاريع أو سوء التخطيط وغياب دراسات الجدوى.

رابعًا: القيمة المضافة في الخدمات (NVSR)

إحصائيًا: رغم إيجابية المعامل (1.319)، إلا أن عدم دلالته ($p = 0.3662$) يشير إلى تباين إسهام القطاع بين السنوات.

اقتصاديًا: هناك ضعف في استثمار إمكانات قطاع الخدمات نتيجة غياب التقييم الجيد لدراسات الجدوى، ما يتطلب سياسات لتعزيز دوره في دعم الاستثمار.

خامسًا: إيرادات الموارد النفطية (OILRE)

إحصائيًا: العلاقة سلبية وغير معنوية ($p = 0.2701$)، مما يثير تساؤلات حول فاعلية توظيف الموارد النفطية.

اقتصاديًا: تعكس النتيجة ضعف استثمار الإيرادات النفطية، بسبب الاعتماد على تغطية النفقات الجارية بدلًا من تمويل الاستثمارات الإنتاجية، ما يتطلب تحسين الإدارة والتخطيط الاستثماري.

سادسًا: إجمالي التجارة (TRD)

إحصائيًا: العلاقة إيجابية ودالة جزئيًا عند مستوى 10% ($p = 0.0619$)، مما يشير إلى أثر ملحوظ للتجارة على الاستثمار العام.

اقتصاديًا: يبرز دور التجارة في دعم الإيرادات والطلب الكلي، وهي إحدى ركائز دراسة الجدوى، إلا أن بعض القيود التجارية قد تحد من تأثيرها الكلي. نلاحظ من الجدول رقم (2) ان قيم معلمات المتغيرات المستقلة للنموذج اكبر من 5% وهي غير معنوية مما يشير الى ان هناك ارتباط متعدد بين المتغيرات المستقلة ولذلك وجب التأكد من صحة هذه المعلمات وذلك بإجراء أحد الاختبارات الاتية: –

اختبار مصفوفة معامل الارتباط الجزئي: –

نلاحظ من الجدول رقم (3) ان قيمة الارتباط بين كل من المتغير القيمة المضافة لقطاع الصناعة وكل من إيرادات النفط وصافي التجارة هي قيم عالية مما تشير الى وجود ارتباط خطي متعدد ما بين هذه المتغيرات وهذا ما تم التأكيد عليه في الجدول السابق الخاص بتقدير النموذج بطريقة المربعات الصغرى

رقم (2) بان قيمة المعلمة للمتغير القيمة المضافة لقطاع الصناعة انها قيمة غير معنوية عند مستوى 5%.

جدول رقم 3 اختبار مصفوفة معامل الارتباط الجزئي للمتغيرات المستقلة

Covariance Analysis: Ordinary	Correlation					
	Sample: 1980 - 2023			Included observations: 44		
	INFO	NVA	NVI	NVSR	OILRE	TRD
INFO	1.000000					
NVA	0.53994	1.000000				
NVI	0.14799	-0.27077	1.000000			
NVSR	-0.39119	-0.10734	-0.92324	1.000000		
OILRE	0.00972	-0.51369	0.45824	-0.30421	1.000000	
TRD	-0.46259	-0.57181	0.52629	-0.30675	0.5021	1.000000

المصدر: إعداد الباحثة من واقع تحليل نموذج الدراسة باستخدام برنامج (Eview.10)

اختبار معامل تضخيم التباين

التحليل الإحصائي والاقتصادي لمصفوفة الارتباط بين المتغيرات

يعكس تحليل مصفوفة الارتباط العلاقات المتبادلة بين المتغيرات الاقتصادية المدروسة، حيث اتضح وجود علاقات طردية وعكسية متفاوتة القوة والدلالة الإحصائية والاقتصادية، الأمر الذي يساعد في فهم التفاعلات البنيوية بين القطاعات المختلفة.

1. التضخم (INFO) أظهر علاقة طردية معتدلة مع القيمة المضافة في قطاع الزراعة (0.53994)، وسالبة مع قطاع الخدمات (−0.39119) والتجارة (−0.46259)، ما يشير إلى أن التضخم يعزز الزراعة لكنه يضر بالخدمات والتجارة. العلاقة الضعيفة مع الإيرادات النفطية (0.00972) تؤكد محدودية تأثير التقلبات النفطية عليه.

2. القيمة المضافة في قطاع الزراعة (NVA) ارتبطت إيجابيًا مع التضخم، وسلبًا مع الإيرادات النفطية (−0.51369) والتجارة (−0.57181)، مما يشير إلى تعزيز الزراعة في فترات التضخم وضعف علاقتها بالقطاع النفطي والتجاري بسبب التركيز على السوق المحلي.

3. القيمة المضافة في قطاع الصناعة (NVI) سجلت ارتباطًا إيجابيًا مع التجارة (0.52629) والإيرادات النفطية (0.45824)، وسالبًا وبقوة مع الخدمات (−0.92324)، مما يعكس دور الصناعة كمحرك للتجارة وتنافسها مع قطاع الخدمات على الموارد والسياسات.

4. القيمة المضافة في قطاع الخدمات (NVSR) أظهرت علاقات سالبة مع الصناعة، والتجارة، والنفط، والتضخم، ما يدل على تأثر هذا القطاع سلبيًا بتقلبات الاقتصاد الكلي وتوجه الاستثمارات نحو القطاعات الإنتاجية.

5. إيرادات الموارد النفطية (OILRE) ارتبطت إيجابيًا مع الصناعة والتجارة، وسلبًا مع الزراعة والخدمات، ما يعكس تركيز الإنفاق النفطي على دعم القطاعات ذات المردود التصديري على حساب القطاعات الخدمية والزراعية.

6. إجمالي التجارة (TRD) سجلت علاقة طردية مع الصناعة والنفط، وسالبة مع الزراعة والخدمات والتضخم، في دلالة على التركيز على الصادرات الصناعية والنفطية، في حين تؤثر الأسعار المحلية المرتفعة سلبًا على تنافسية التجارة.

أما اختبار معامل تضخيم التباين (VIF) الوارد في الجدول (3)، فقد أظهر أن بعض المتغيرات المستقلة (الزراعة، الصناعة، الخدمات) تتجاوز قيمها 5، وهو مؤشر على وجود مشكلة الارتباط الخطي المتعدد، مما يستدعي الحذر عند تفسير نتائج النماذج القياسية وضبطها لضمان دقة التقدير.

جدول رقم 4 اختبار معامل تضخيم التباين

	Coefficient	Uncentered	Centered
Variable	Variance	VIF	VIF
NVA	1.676406	80.29982	21.83217
NVI	2.360040	3721.815	141.3875
NVSR	2.078969	1308.696	136.5925
OILRE	0.021924	16.77295	2.241288
TRD	0.004031	11.61791	2.836958
INFO	0.000986	3.187469	2.682865
C	22928.74	10451.79	NA

المصدر: إعداد الباحثة من واقع تحليل نموذج الدراسة باستخدام برنامج (Eview.10)

تحليل التباين العشوائي وعوامل التضخيم التبايني (VIF):

تم استخدام أدوات تحليل التباين وعوامل التضخيم التبايني لتشخيص مشكلة تعدد الارتباط الخطي بين المتغيرات المستقلة في النموذج القياسي لتقدير أثر دراسة الجدوى الاقتصادية على الاستثمار العام.

القيمة المضافة في الزراعة (NVA):

لوحظ وجود مشكلة تعدد ارتباط معتدلة، حيث بلغ عامل VIF المتمركز 21.83، ما يعكس ارتباطًا متوسطًا مع المتغيرات الأخرى. اقتصاديًا، يُعزى ذلك إلى تأثر القطاع الزراعي بالسياسات الاقتصادية العامة، خصوصًا في الاقتصادات الريعية.

القيمة المضافة في الصناعة (NVI):

سُجل أعلى مستوى لمؤشرات التضخيم التبايني، حيث بلغ VIF المتمركز 141.38، مما يشير إلى وجود مشكلة حادة في تعدد الارتباطات. ويرجع ذلك اقتصاديًا إلى الترابط البنيوي بين الصناعة وبقية القطاعات، لا سيما اعتمادها على الإيرادات النفطية.

القيمة المضافة في الخدمات (NVSR):

سُجلت مؤشرات تضخيم تبايني مرتفعة جدًا (VIF المتمركز 136.59)، مما يشير إلى ارتباط قوي مع بقية المتغيرات. يعود ذلك إلى الطبيعة التكاملية للقطاع مع الصناعة والتجارة في الاقتصاد الكلي.

الإيرادات النفطية (OILRE):

أظهرت مؤشرات VIF معتدلة (2.24)، ما يشير إلى غياب مشكلة ارتباط حاد. ويرجع ذلك إلى تأثر الإيرادات النفطية بعوامل خارجية، مثل الأسعار العالمية، أكثر من تأثرها بالمتغيرات الداخلية.

إجمالي التجارة (TRD):

سجل ارتباطًا معتدلًا (VIF المتمركز 2.83)، ما يعكس دوره الوسيط في الربط بين القطاعات دون أن يكون له تأثير مباشر كبير عليها.

معدل التضخم (INFO):

أظهر ارتباطًا ضعيفًا إلى متوسط (VIF المتمركز 2.68)، ويعزى ذلك إلى أن التضخم يتأثر بعوامل كلية كالعرض النقدي والسياسات النقدية، بعيدًا عن تأثيرات القطاعات الفردية.

الثابت (C):

تميز بقيمة تباين مرتفعة جدًا نظرًا لطبيعته كعنصر تجميعي يعكس العوامل غير المشمولة في النموذج.

المعالجة المنهجية:

لمعالجة مشكلة تعدد الارتباط، تم استبعاد متغير القيمة المضافة في الصناعة (NVI) استنادًا إلى أعلى قيمة معنوية عند مستوى 5%. أدى هذا الإجراء إلى تحسين دلالة معاملات بعض المتغيرات الأخرى، مما حسّن من كفاءة النموذج المقدر، كما هو موضح في الجدول رقم (4).

جدول رقم 5 تقدير النموذج بطريقة المربعات الصغرى

Variable	Coefficient	Std. Error	t-Statistic	Prob.
NVA	0.330781	0.424253	0.77968	0.4404
NVSR	0.653345	0.168415	3.879366	0.0004
OILRE	-0.188839	0.138077	-1.367637	0.1795
TRD	0.127731	0.061742	2.068792	0.0454
INFO	-0.001014	0.030718	-0.033019	0.9738
C	-11.77027	12.40866	-0.948553	0.3488
R-squared	0.445694	Mean dependent Var		15.69493
Adjusted R-squared	0.372759	S.D. dependent Var		12.2766
F-statistic	6.11083	Prob(F-statistic)		0.000302

المصدر: إعداد الباحثة من واقع تحليل نموذج الدراسة باستخدام برنامج (Eview.10)

أولًا: القيمة المضافة في قطاع الزراعة (NVA)

التفسير الإحصائي: أظهر معامل التأثير (0.33) علاقة إيجابية ضعيفة وغير معنوية إحصائيًا، كما يشير الخطأ المعياري المرتفع إلى تدني دقة التقدير.

التفسير الاقتصادي: رغم الأثر الإيجابي الظاهري، إلا أن ضعف المعنوية يعكس محدودية تأثير القطاع الزراعي في دفع الاستثمار العام، وربما يعزى ذلك إلى غياب الدعم المؤسسي أو التكنولوجي الكافي.

ثانيًا: القيمة المضافة في قطاع الخدمات (NVSR)

التفسير الإحصائي: يُعد هذا المتغير الأكثر تأثيرًا، حيث أن معامل التأثير (0.65) معنوي عند مستوى 1% مع خطأ معياري منخفض، ما يعكس موثوقية التقدير.

التفسير الاقتصادي: يعكس هذا التأثير أهمية الخدمات كرافعة رئيسية للاستثمار العام، خصوصًا في القطاعات المرتبطة بالإنفاق الحكومي مثل التعليم والصحة والنقل.

ثالثًا: الإيرادات النفطية (OILRE)

التفسير الإحصائي: أظهر معامل التأثير (−0.19) علاقة سالبة وغير معنوية إحصائيًا، ما يشير إلى ضعف تأثير الإيرادات النفطية على الاستثمار العام ضمن النموذج.

التفسير الاقتصادي: يعكس هذا الأثر السلبي المحتمل توجه الإيرادات نحو مجالات غير استثمارية أو مواجهة التقلبات في أسعار النفط، مما يحد من القدرة على التخطيط الاستثماري طويل الأجل.

رابعًا: إجمالي التجارة (TRD)

التفسير الإحصائي: معامل تأثير موجب (0.13) ومعنوي عند مستوى 5%، مع خطأ معياري منخفض، مما يعكس تقديرًا موثوقًا نسبيًا.

التفسير الاقتصادي: يدل على أن التجارة الخارجية تسهم في تعزيز الاستثمار العام من خلال الإيرادات التي تُستخدم في مشاريع البنية التحتية والتنمية الاقتصادية.

خامسًا: التضخم (INFO)

التفسير الإحصائي: معامل تأثير سلبي ضئيل جدًا (−0.001) وغير معنوي، مع دقة تقدير معتدلة.

التفسير الاقتصادي: يشير إلى أن التضخم لا يُعد من العوامل المؤثرة على الاستثمار العام في العراق ضمن الإطار الزمني المدروس، ربما نتيجة لتعويض الحكومة آثاره عبر سياسات مالية ونقدية.

سادسًا: الثابت (C)

التفسير الإحصائي والاقتصادي: معامل الثابت سلبي وغير معنوي إحصائيًا، مما يشير إلى وجود تأثيرات لعوامل خارج النموذج تؤثر على الاستثمار العام، قد تشمل صدمات اقتصادية أو سياسات حكومية غير مشمولة.

التقييم العام للنموذج:

بلغت قيمة معامل التحديد المعدل (Adjusted R^2) نحو 0.373، مما يشير إلى أن المتغيرات المستقلة تفسر نحو 37% من التغير في الاستثمار العام.

أظهر اختبار F معنوية إجمالية للنموذج عند مستوى 1%، مما يعني أن المتغيرات المستقلة مجتمعة تفسر التغير في المتغير التابع بشكل مؤثر.

الاستنتاج:

تشير نتائج النموذج إلى أن القيمة المضافة في قطاع الخدمات وإجمالي التجارة يمثلان أبرز المحركات للاستثمار العام في العراق. في المقابل، فإن القيمة المضافة في الزراعة، والإيرادات النفطية، والتضخم لم تُظهر تأثيرًا معنويًا، مما يبرز الحاجة إلى إصلاحات هيكلية في هذه المجالات لتعزيز مساهمتها في الاستثمار العام. النموذج يفسر نسبة معتدلة من التغير في الاستثمار العام، مما يشير إلى إمكانية تضمين متغيرات إضافية مستقبلًا لزيادة القدرة التفسيرية.

اختبار معامل تضخيم التباين

وللتأكد من صحة معالجة هذه المشكلة وذلك بإسقاط أحد هذه المتغيرات والمتمثل في متغير القيمة المضافة لقطاع الصناعة (NVI) على الرغم من أهميته في النموذج يبين الجدول رقم (5) والخاص باختبار معامل تضخيم التباين من خلال القيم الخاصة بهذا المقياس هي قيم أصغر من5% مما يشير الى عدم وجود ارتباط خطي متعدد ما بين هذه المتغيرات المستقلة والى تحسن في النموذج المقدر

جدول رقم 6 اختبار معامل تضخيم التباين

	Coefficient	Uncentered	Centered
Variable	Variance	VIF	VIF
NVA	0.179991	8.803113	2.393418
NVSR	0.028364	18.23077	1.902801
OILRE	0.019065	14.89274	1.990044
TRD	0.003812	11.21716	2.739101
INFO	0.000944	3.113150	2.620311
C	153.9749	71.66576	NA

المصدر: إعداد الباحثة من واقع تحليل نموذج الدراسة باستخدام برنامج (Eview.10)

تُظهر نتائج اختبارات كفاءة النموذج مستوى جيداً من الدقة الإحصائية والتفسير الاقتصادي المنطقي للمتغيرات المدروسة:

1. القيمة المضافة في الزراعة (NVA):

من الناحية الإحصائية، معامل التباين البالغ (0.1799) يشير إلى استقرار نسبي في تقدير الأثر، بينما تشير قيم VIF المركزية (2.39) إلى غياب مشكلات التعدد الخطي. اقتصادياً، يعكس هذا المتغير دور القطاع الزراعي في تحفيز الاستثمار العام عبر تعزيز التنمية الريفية والبنى التحتية.

2. القيمة المضافة في الخدمات (NVSR):

يتميز معامل التباين (0.0283) بدقة عالية، فيما تبرز قيمة VIF غير المركزية المرتفعة (18.23) تداخلاً مع متغيرات أخرى، غير أن القيمة المركزية المقبولة (1.90) تقلل من القلق الإحصائي. اقتصادياً، يبرز المتغير أهمية القطاع الخدمي في تحفيز الاستثمار العام عبر قطاعات حيوية كالنقل والصحة والتعليم.

3. الإيرادات النفطية (OILRE):

معامل التباين المنخفض (0.0190) يعكس دقة مقبولة، في حين تشير قيم VIF (14.89 غير مركزية و1.99 مركزية) إلى ارتباط متوسط بالمتغيرات الأخرى. اقتصادياً، يُعد النفط مصدراً رئيسياً لتمويل الاستثمارات العامة، مع تأثيرات محتملة ناتجة عن علاقته بالتجارة والقطاعات المرتبطة.

4. إجمالي التجارة (TRD):

يبرز معامل التباين المنخفض جداً (0.0038) دقة عالية، وتظل قيم VIF ضمن الحدود المقبولة (11.21 غير مركزية، 2.73 مركزية). من الناحية الاقتصادية، تسهم التجارة في تعزيز الاستثمار العام عبر تحفيز الناتج المحلي والإيرادات.

5. التضخم (INFO):

يتمتع بأعلى دقة (معامل التباين 0.0009)، وقيم VIF منخفضة (3.11 غير مركزية، 2.62 مركزية)، ما يشير إلى موثوقية التقدير. اقتصادياً، للتضخم تأثير سلبي محتمل على الاستثمار عبر ارتفاع التكاليف، لكن التقديرات لم تتأثر بتداخلات كبيرة.

6. الثابت (C):

يتميز بارتفاع شديد في معامل التباين (153.97) وVIF غير مركزي (71.66)، ما يعكس وجود تأثيرات خارجية غير مفسَّرة، مثل العوامل السياسية والاقتصادية غير المدرجة في النموذج.

الخلاصة الإحصائية:

جميع قيم VIF المركزية للمتغيرات المستقلة تقع ضمن الحدود المقبولة (<10)، ما يشير إلى سلامة النموذج من مشكلات التعدد الخطي.

الخلاصة الاقتصادية:

تبرز النتائج أهمية الإيرادات النفطية، التجارة، والخدمات في دعم الاستثمار العام، مع مساهمة أقل وضوحاً من الزراعة والتضخم.

اختبارات سلسلة البواقي:

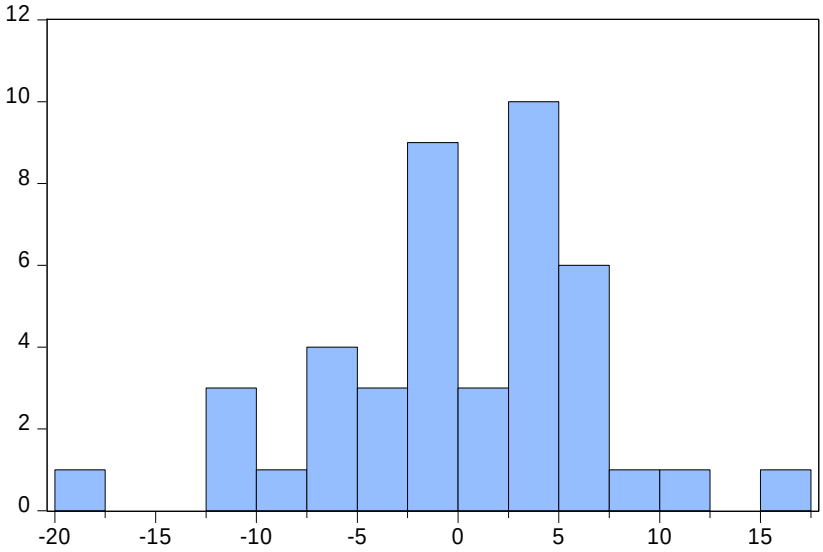
الطبيعية: اجتاز النموذج اختبار Jarque–Bera، مما يدل على أن البواقي تتبع التوزيع الطبيعي.

الارتباط الذاتي: لا يعاني النموذج من الارتباط الذاتي، وفقاً لاختبار Breusch–Godfrey.

عدم التجانس: البواقي خالية من مشكلة تغاير التباين، حسب نتائج اختبار Breusch–Pagan–Godfrey و ARCH.

الاستنتاج العام:

تشير نتائج التحليل إلى موثوقية النموذج وقدرته التفسيرية المقبولة إحصائيًا واقتصاديًا، مع عدم وجود مشاكل خطيرة تتعلق بالافتراضات الكلاسيكية لنموذج الانحدار المتعدد.



Series: Residuals
Sample 1981 2023
Observations 43

Mean	3.67e-16
Median	0.318366
Maximum	16.79528
Minimum	-18.26966
Std. Dev.	6.663776
Skewness	-0.341571
Kurtosis	3.535627
Jarque-Bera	1.350164
Probability	0.509115

شكل رقم 1 اختبار التوزيع الطبيعي لسلسلة البواقي Normaltiy test

جدول رقم 7 اختبارات سلسلة البواقي Residuals

Breusch–Godfrey Serial Correlation LM Test:

F-statistic	0.785515	Prob. F(2,34)	0.4640
Obs*R-squared	1.899137	Prob. Chi-Square(2)	0.3869
Heteroskedaticity Test: Breusch-Pagan-Godfrey			
F-statistic	1.123275	Prob. F(6,36)	0.3685
Obs*R-squared	6.780707	Prob. Chi-Square(6)	0.3416
Scaled explained SS	6.025575	Prob. Chi-Square(6)	0.4203
Heteroskedaticity Test: ARCH			
F-statistic	0.104889	Prob. F(2,38)	0.9007
Obs*R-squared	0.225098	Prob. Chi-Square(2)	0.8936

المصدر: إعداد الباحثة من واقع تحليل نموذج الدراسة باستخدام برنامج (Eview.10)

أولًا: اختبار الارتباط التسلسلي (Breusch-Godfrey LM Test):

التفسير الإحصائي: أظهرت نتائج الاختبار أن قيمة إحصائية F بلغت (0.7855) باحتمالية (0.4640)، وإحصائية Obs*R-squared بلغت (1.8991) باحتمالية (0.3869)، وكلاهما أعلى من مستوى المعنوية 5%. وبالتالي، لا توجد أدلة على وجود ارتباط تسلسلي في البواقي، ويُقبل الفرض الصفري.

التفسير الاقتصادي: يشير غياب الارتباط التسلسلي إلى أن الأخطاء في النموذج مستقلة زمنيًا، مما يعزز موثوقية النتائج وعدم تأثرها بالعوامل الزمنية، ويؤكد صلاحية النموذج للتحليل الاقتصادي طويل الأمد.

ثانيًا: اختبار عدم تجانس التباين (Breusch-Pagan-Godfrey Test):

التفسير الإحصائي: بلغت قيمة F (1.1232) باحتمالية (0.3685)، وقيمة Obs*R-squared (6.7807) باحتمالية (0.3416)، إضافة إلى Scaled explained SS (6.0255) باحتمالية (0.4203)، وكلها غير معنوية إحصائيًا، مما يشير إلى تجانس التباين.

التفسير الاقتصادي: استقرار التباين يعكس حيادية النموذج عبر مختلف مستويات المتغيرات المستقلة، ويدل على أن التقديرات غير متحيزة وثابتة، مما يدعم صلاحية النموذج في التنبؤ والتحليل الاقتصادي.

ثالثًا: اختبار ARCH لتباين التباين الزمني:

التفسير الإحصائي: بلغت إحصائية F (0.1048) باحتمالية (0.9007)، وObs*R-squared (0.2251) باحتمالية (0.8936)، مما يؤكد غياب مشكلة ARCH.

التفسير الاقتصادي: يشير عدم وجود تباين زمني في الأخطاء إلى استقرار النموذج عبر الزمن وعدم تأثره بتقلبات البيانات، وهو ما يعزز دقة التحليل والسياسات الاقتصادية المستندة إليه.

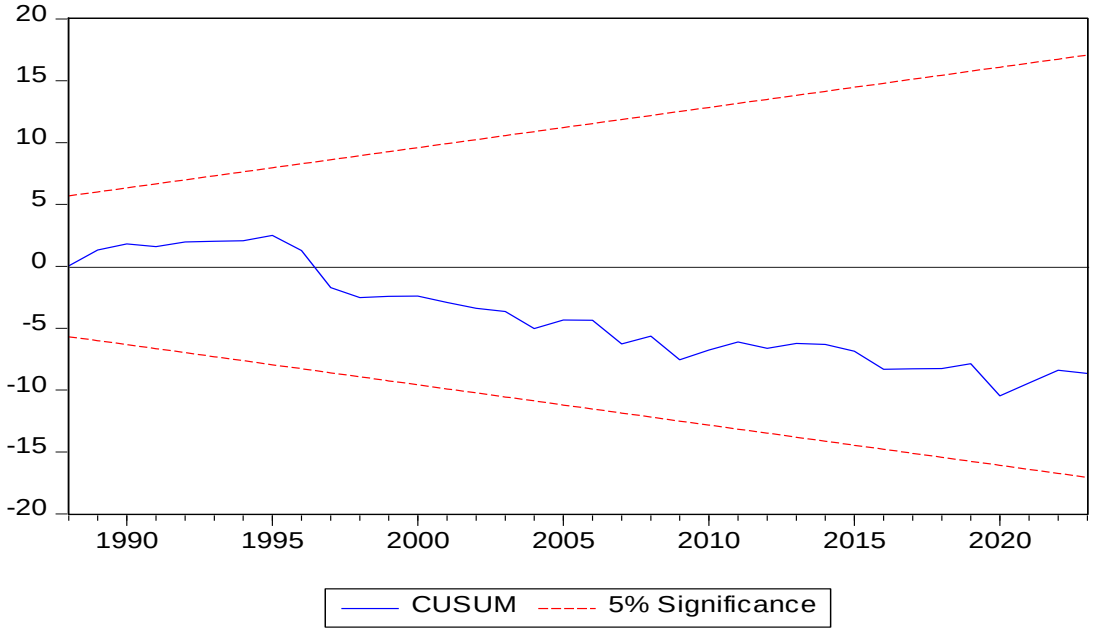
رابعًا: اختبار استقرار هيكل النموذج (CUSUM):

أظهرت نتائج اختبار CUSUM أن منحنى الإحصائية يقع ضمن الحدود الحرجة عند مستوى 5%، ما يدل على استقرار معلمات النموذج على مدى فترة الدراسة.

الاستنتاج العام:

من الناحية الإحصائية، اجتاز النموذج جميع الاختبارات التشخيصية بنجاح، دون مؤشرات على مشاكل في الارتباط الذاتي، أو تجانس التباين، أو عدم الاستقرار الهيكلي.

من الناحية الاقتصادية، تعزز هذه النتائج الثقة في كفاءة النموذج في تفسير العلاقة بين المتغيرات المستقلة والاستثمار العام، مما يجعله أداة موثوقة في تقييم تأثير دراسات الجدوى الاقتصادية على قرارات الاستثمار الحكومي.



شكل رقم 2 اختبار استقرار هيكل النموذج وفقا لإحصائية CUSUM

الاستنتاجات

يمكن بلورة عدد من الاستنتاجات التي تم التوصل اليها في ضوء ما تم عرضه خلال الدراسة وكما يأتي:

1. ان سوء التخطيط ادى الى غياب دراسات الجدوى الشاملة والمفصلة للمشاريع الاستثمارية، مع عدم الكفاءة والتي انعكست على الكفاءات والخبرات اللازمة لإدارة وتنفيذ المشاريع الاستثمارية. فضلا تأثير المصالح السياسية على قرارات الاستثمار، مما يؤدي إلى تحويل المشاريع إلى مشاريع ذات طابع سياسي بدلاً من مشاريع اقتصادية. كما ان انتشار الفساد في عمليات المناقصات والتراخيص يؤدي إلى ارتفاع التكاليف وتدهور جودة المشاريع.

2. تلعب دراسة الجدوى الاقتصادية دورًا حاسمًا في تحسين كفاءة الاستثمار العام فهي تساعد في اتخاذ القرارات الاستثمارية المدروسة والواعية، وتوجيه الموارد نحو المشاريع الأكثر جدوى، وتقليل المخاطر المرتبطة بالاستثمار.

3. وجود علاقة ذات دلالة احصائية لدراسة الجدوى الاقتصادية على الاستثمار العام في قطاع الزراعة، حيث يعكس دور الزراعة كأحد القطاعات الأساسية، لكن الضعف في الأهمية الإحصائية قد يشير إلى أن هذا التأثير محدود أو يعتمد على عوامل أخرى مثل التكنولوجيا أو استراتيجيات دعم القطاع الزراعي.

4. وجود علاقة ذات دلالة احصائية لدراسة الجدوى الاقتصادية على الاستثمار العام في قطاع الخدمات. وهذا قد يعكس التركيز المتزايد على القطاعات الخدمية مثل التعليم، الصحة، والنقل، والتي تشكل جزءًا كبيرًا من الإنفاق الحكومي لتحسين التنمية الاقتصادية والاجتماعية.

5. وجود علاقة ذات دلالة احصائية لدراسة الجدوى الاقتصادية على الاستثمار العام في قطاع النفط، ان هذه العلاقة السلبية قد تعكس تحول الإيرادات النفطية نحو القطاعات الاستهلاكية أو تسديد الديون بدلاً من الاستثمار العام. هذا التوجه قد يرتبط بسياسات مالية تهدف إلى تحقيق استقرار الاقتصاد الكلي بدلاً من التوسع الاستثماري.

6. وجود علاقة ذات دلالة احصائية لدراسة الجدوى الاقتصادية على الاستثمار العام في قطاع الصناعة، وذلك من خلال العلاقة بين القيمة المضافة لقطاع الصناعة التي تمثل الجدوى الاقتصادية والاستثمار العام. أن القطاع الصناعي كان له تأثير كبير على الاقتصاد العراقي طوال الفترة المدروسة، لكنه شهد تقلبات واضحة في مساهمته. من المحتمل أن تكون هذه التقلبات ناتجة عن تغييرات في السياسات الحكومية، الأزمات الاقتصادية العالمية، أو تغييرات هيكلية في الاقتصاد العراقي.

التوصيات

في ضوء طبيعة الاستنتاجات والملاحظات التي توصلت اليها الدراسة يمكن التوصل الى العديد من النتائج والتوصيات، وهي كالاتي:

1. ان هناك علاقة بين كفاءة الاستثمار العام ودراسة الجدوى من هنا أصبح لابد من الاهتمام بالمقومات الاساسية لتنفيذ المشاريع كترشيد الانفاق الحكومي وتعزيز قدرات الانتاج المحلي في قطاعي الزراعة والصناعة والقطاعات الاخرى مثل الاتصالات والسياحة والاسكان وغيرها مع اهمية الاستثمار في البحث والتطوير وتحسين مستوى الاداء.
2. الاهتمام بدراسات الجدوى الاقتصادية لرفع كفاءة الاداء للاستثمار العام لدعم القطاعات ذات القيمة المضافة العالية، اذ تمثل دراسات الجدوى الاقتصادية صمام أمان ومعينًا جيدًا لعملية الترشيد في الإنفاق واستغلال الموارد المالية والبشرية المتاحة.
3. تفعيل وتشجيع دور القطاع القطاع الخاص، وتسهيل الإجراءات، وتقديم الحوافز الضريبية. واستكمال المنظومة التشريعية وتجاوز العقبات والاساليب الروتينية وتفعيل عملية الشراكة.
4. الحد من ظاهرة الابتزاز والفساد وتعزيز الشفافية والمساءلة، مما يؤدي الى ترشيد الاستخدام للموارد العامة ورفع فعالية الاستثمار العام.
5. انه من الضروري تأهيل كادر وطني متخصص في دراسات الجدوى الاقتصادية، وبناء كفاءات تمتلك زمام المبادرة باتجاه تحقيق الرؤى والأهداف الاستراتيجية للتنمية الاقتصادية والاجتماعية، بغية تمكين وحدات القطاع الحكومي من تقديم مشاريعها التنموية بصورة متكاملة ودقيقة.
6. اعداد برنامج وطني للمشاريع الاستثمارية في القطاعات العامة وتكون قابلة للتوسع لتشمل الشباب الراغبين في إقامة مشروعات خاصة ومبادرات فردية، وتأسيس مؤسسات متوسطة وصغيرة، بحيث يمتلكون المهارات والخبرات اللازمة في هذا الشأن، على أن تبادر الجهات المعنية بتنفيذ مثل هذه البرامج مجانًا لهم، وإتاحتها أمام الجميع، بما يؤسس لثقافة مجتمعية تتوسع لتشمل الأسر وكل رب أسرة، بل كل فرد داخلها.

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