Towards Alleviating Poverty: Study The Impact of E-Commerce, Digital Marketing, and Digitalization's on Improving Economic Growth in Iraq

Ahmed Hasan Shakir

Universitare de Doctorat din ASE Bucureşti.
ORCID iD: https://orcid.org/0009-0004-8892-3826
Email: shakirahmed21@stud.ase.ro

Kadhim Ghaffar Kadhim

College of Administrative Sciences, Business Administration Department, Al-Mustaqbal University, Babylon 51001, Iraq. ORCID iD: https://orcid.org/0000-0002-3106-6550
Email: kadhim.ghaffar@uomus.edu.iq

Amjed Hameed Majeed*

College of Administrative Sciences, Business Administration Department, Al-Mustaqbal University, Babylon 51001, Iraq. ORCID iD: https://orcid.org/0000-0001-9015-5329
Email: Amjed_hameed@uomus.edu.ig

Prof Dr Hasan Majdi

College of Engineering and Technologies, Al-Mustaqbal University, Babylon 51001, Iraq.

ORCID iD: <u>https://orcid.org/0000-0001-6752-4835</u>

Email: dr.hasanshker@uomus.edu.iq

Hayder Jawad Kadhim Murshedi

University of Kufa, Iraq.

ORCID iD: https://orcid.org/0009-0004-8693-8872

Email: Haiderj.kadum@uokufa.edu.iq

With the increasing growth in numerous aspects of human life and activities, technology is becoming an unavoidable part of everyday life. It has become apparent that without the use of technology much can be lost in terms of productivity. E-commerce has enabled consumers to greatly reduce their physical efforts in dealing with businesses which translates to high level of convenience. In this study, the how e-commerce has changed the business landscape in Iraq will be assessed alongside digitaliztation and Iraq's economic growth. The research shows like always that there is a very positive relation between the e- commerce adoption e- marketing tools along other factors, the business growth in doing so facilitates economic growth undoubtedly. Further adopters of e-commerce are found to do business with greater contentment and satisfaction as they have lower costs on conducting business. In turns resulting in even greater business expansion goals and objectives. E-commerce along with growing digital marketing tools allows for business expansion while greatly saving time and many physical resources. The outcome of the study provides an impetus for policy formulation and its practical contribution to the study of digital economy concerning the deployment of key resource such as internet.

Keywords: E-Commerce, Digital Marketing, Digitalization's, Economic Growth, Poverty Alleviating.

Introduction

The world is undergoing a radical transformation and businesses are changing their nature due to technological advancements while experiencing growth across factors of production, this revolution is termed as a digital transformation (Kraus et al., 2021; Van Veldhoven & Vanthienen, 2022). In the case of underdeveloped countries, the use of e-commerce, digital marketing, and even the broad spectrum of becoming digital may open up avenues to form new businesses and hire entrepreneurs and obtain previously hard to observe markets, The aforementioned shift is of a crucial nature for Iraq, who is attempting to rebuild its economy while managing the socio-political factors it has to face (Allawi & Alyouzbaky, 2024; Jasim, Hameed, & Jasim, 2021).

One of the most effective methods of repairing the economic structures of Iraq, rejuvenating the stale factors of competition, and ameliorating from the situation, is through seeking help from the digital transformation (Yousif, Morrar, & El-Joumayle, 2023). Empowering Iraqi companies to transact on platforms that extend beyond homemade stores gives them more options and potential profit owing to e-commerce. One key factor enabling companies to deepen customer connections, build brands, and expand markets is digital marketing—it allows companies to engage with customers inexpensively, offers visibility benefits, and enhances customer loyalty (Mukhtar, Mohan, & Chandra, 2023; Zulfikar, 2023). As well as these factors, businesses are further enabled by digital literacy and better infrastructure. All of these are important milestones in

the process of achieving sustainable development (Al-Jabori, 2023).

Literature Review

E-Commerce in Iraq

E-commerce has started to gain some significance due to a noticeable growth of internet users (from 0.2% in 2000 to 12.9% in 2019) and increased usage of mobile phones in Iraq (Hamakhan, 2021). However, the sector still faces some obstacles to its development. There is no existing frame or regulation at a governmental level for e-commerce activities. Furthermore, the available infrastructure (logistic and financial) is not sufficient to meet the accepted standard for the development of this sector (Ahi, Sinkovics, & Sinkovics, 2023). In 2020, due to the global pandemic of COVID-19, the number of internet users in the Middle East rose by 11 million to reach over 170 million on a pan regional level, while Iraq accounted for 100 thousand additional new internet users. Under this new development, local and regional business start-ups began to pay increasing attention to e-commerce activities to reach a large numbers of customers (Elameer, 2021). Local companies in the Iraqi e-commerce market include Miswaak (launched in 2019). Miswaak is a local Iraqi e-commerce company that provides a B2C platform to customers. It operates over a vast platform where people can buy groceries online. Meanwhile, the market is dominated by Daraz, the largest ecommerce shop in South Asia, and Amazon, an American multinational technology company that focuses on ecommerce, cloud computing, digital streaming, and artificial

intelligence. Both Daraz and Amazon provide services to Iraqi customers, and both players together dominate the business with 66% of the share in the Iraqi market. On the other hand, the market is also filled with third parties such as TNT Express, UAE Xpress, and iShipx to facilitate delivery outside Iraq (Iqbal et al., 2024). However, this service is not cheap and so far, effects only a small part of the Iraqi market. Online sales of goods or services are on the rise in Iraq. There is an increasing preference for digital transactions in place of cash-on-delivery when consumers order goods or services through digital platforms or websites. It is said that it seems unlikely times are returning to pre-pandemic days with regards to e-commerce trends (Alwan et al., 2023). The retail and services sectors have noticeable potential in entering the e-commerce market. The immediacy of posting and sharing on social media, and the potential to link social media posts to commercial websites through advertising links, are significant in promoting ecommerce. This reflects its critical importance in Iraq's aim of economic diversification and reducing dependency on the oil sector (Antwi-Boateng & Al Jaberi, 2022; Firas Abdullrada & Ali Waheeb, 2024).

The Role of Digitalization in Economic Growth

The digitalization of the world as an inevitable result of ICT development went through its historical stages so that ecommerce, which can be considered as its final product, expanded since the mid-nineties of the last century (Durand & Baud, 2024; Ertemel & Civelek, 2022). Yet, despite being in the same bandwagon of globalization and digitalization, Iraq suffered delays in implementing standard practices, policies and models in the recent past. What Iraq is to do is to urgently adopt and timely modify the Western models or other successful examples implemented in the neighbouring countries, concentrating on building an adequate infrastructure with various supportive global services (AL-Saadi, Cherepovitsyn, & Semenova, 2022). Besides, Iraq is to develop a new strategy for e-commerce and digital marketing practices, which can open more opportunities for engaging in global trade, respectively (Altememy et al., 2023).

Digital technologies enable creating a significant, sustainable and secure e-commerce and mobile commerce environment, which could link regions and remote parts of the vast country or even regions from surrounding the globe (Elameer, 2021). This study explores how digitalization, e-commerce, digital marketing, and other age-specific business practices could support sustainable social and economic development, and how global trade may be facilitated. The e-commerce and other digital marketing practices are to enable high productivity, creativity, competitiveness, and innovation at a national and international level (Tolstoy, Nordman, & Vu, 2022). The ability of cross-border ICT applications could expand; participation in global markets thereby could foster the transformation of Iraq's economy and promoting the integration of all relevant stakeholders into the global market. Further stimulation of the domestic population of young women, people with disabilities, and elderly people, whose access could be enhanced by digitalization is envisaged (Firas Abdullrada & Ali Waheeb, 2024; Khrais, Zorgui, & Aboalsamh, 2023).

The online platform for effective global communication is designed to ensure sufficient content, social and economic growth, and to facilitate social and economic development and competitive advantage in the wider country areas too. Unique e-services are to foster life-long education and training, the ability to adopt to widespread profound changes occurring in society and work environments, and relevant to developing more efficient public services - e-health, epolice, etc – are designed to respect the cultural traditions of the country that is to ensure that e-commerce is sustainable and acceptable to the broadest number of potential beneficiaries, particularly those in rural and remote areas (Carrera-Rivera, Larrinaga, & Lasa, 2022; Izquierdo-Yusta et al., 2021; Marienfeldt, 2021). The strategies and policy are designed to encourage regional, national, and international investment and cooperation in enhancing global trade. respectively, are supportive complementary. All of those digital actions support governance development, software applications respect copyright and privacy legislation, transparency, and accountability, and reduce informal aspects, and finally, the improved level of digital skills of workforce and older persons, and thus employability in a world of rapid change of the early XXI century (Akour & Alenezi, 2022; Bennett & McWhorter, 2021). Such a digital strategy is to unite, coordinate, and boost all activities of the relevant stakeholders to respond to the common goal of establishing as rapidly as possible an extensive digital global environment that would ensure wider and more efficient participation in the global market to foster socio-economic development and poverty reduction, and eventually provide the good standards of living to all inhabitants of all regions of Iraq (Begum & Musa, 2023; Totonchi & Ahlan, 2023). Many practical cases and theoretical approaches to digital and age-specific businesses to explore the best possible ways to connect with the wider world markets in the forthcoming global dimension of the digital era to avoid delays, difficulties and wrong moves in attempting to buildup a virtual business island detached and unlinked to the rest of the globalized world-market network of the new millennium, presented in the study.

Hypothesis Development

Based on previous studies, this research puts forward the following hypotheses:

Hypothesis 1: E-commerce has a positive effect on the economic growth of Iraq.

Justification: E-commerce opens new opportunities for businesses, lowers transaction costs, and increases market access, which in turn encourages trade and supports economic diversification.

Hypothesis 2: Digital marketing strategies positively affect the economic growth of Iraq.

Justification: By allowing businesses to reach wider audiences at lower costs, digital marketing enhances competition, innovation, and market expansion.

Hypothesis 3: Digitalization has a positive effect on the economic growth of Iraq through gains in productivity, reduction in costs, and the creation of new industries.

Rationale: Digitalization increases efficiency in business

and the public sector, cuts operational costs, and fosters innovation, thus driving economic growth.

Methodology

It mainly uses quantitative methods to investigate e-commerce, digital marketing, and digitalization that influence economic development in Iraq. Quantitative methodologies provide a hard approach to explore the relationship of the country's digital transformation with key performance indicators of a country's economic growth, namely: GDP, level of employment, and business expansions. The study only targets the Iraqi firms currently using or intend to use digital tools in their operation. The data is collected based on a survey instrument, and the analysis uses regression analysis to assess the impact of these digital variables on economic outcomes.

Research Design

This study is quantitative and cross-sectional in nature. The data is collected through a survey that measures the level of e-commerce, digital marketing, and digitalization of Iraqi firms. The cross-sectional study will be appropriate for this research as it will take a snapshot at one point in time.

Type of Research: Quantitative, Cross-Sectional

Research Instrument: Structured questionnaire with closedended questions to ensure consistency in data gathering for comparability and reliability of the data gathered.

Method of Data Collection: Online and offline surveys so as to reach a wide variety of businesses

Analytical Technique: Regression analysis to test the hypotheses relating to the economic effects of e-commerce, digital marketing, and digitalization.

Sample

The sample comprises businesses in different sectors in Iraq, including retail, finance, telecommunications, and manufacturing; each portrays varying levels of digital adoption. This kind of diversity gives insight into how digital tools impact the trajectory of economic activities in the major sectors of Iraq.

Sample Size: A total of approximately 300 businesses were selected to adequately represent the digital landscape of Iraq. **Sampling Method:** Random sampling is selected from the business directories and industry databases to achieve diversity in business types, sizes, and sectors.

Target Respondents: Business owners, marketing managers, IT managers, and department heads engaged in e-commerce or digital marketing, as they can provide insights into the digital strategies and their perceived effects on growth.

Sample Population

This research aims at a variety of participants in Iraq's digital

Data Collection Procedure

Surveys are administered to businesses to achieve thorough data collection, including those with limited internet access. The questionnaire covers issues of ecommerce adoption, digital marketing strategies, and digitalization initiatives, among others, and points to key business performance indicators such as revenue growth,

economy:

Consumers: Those who will use e-commerce or digital services. This covers the demand side.

Firms: Small and medium enterprises, large firms, and start-ups that are into digital marketing or e-commerce.

Government Officials: Officials of agencies that will be advocating for digital transformation, such as the Ministry of Communications and the Central Bank.

Service Providers: These are firms like internet providers, digital payment systems, and logistics companies that will facilitate digital transactions—(UNCTAD, 2020; World Bank, 2021). This measure captures the economic impact of digital transformation on different demographic and economic groups.

Data Collection Methods

A mix of data collection methods increases the accuracy and depth of insights on digital adoption and its economic impacts:

Surveys and Questionnaires: These are sent to business managers and service providers to collect quantitative data on digital adoption, business practices, and perceived economic impact of digital tools.

Interviews: Semi-structured interviews with key stakeholders, including government officials and business leaders, provide qualitative insights into the digital economy of Iraq.

Focus Groups: The use of small group discussions in relation to digital services provides an in-depth exploration of users' experiences, motivations, and challenges, further adding qualitative depth to the findings.

Secondary Data: Data from the Central Statistical Organization of Iraq, the World Bank, and the Ministry of Communications put digital trends and economic indicators into perspective.

By combining quantitative and qualitative data, this research shows the holistic view of the impact of digitalization on the economy of Iraq, thereby increasing the reliability and depth of the findings to understand the relationship between digital transformation and economic growth in a nuanced way.

Demographic Profile of the Sample

It is very important to know the demographic profile for understanding the impact of digital technologies on economic growth in Iraq. The sample should be representative of the population of Iraq, taking into consideration major demographic characteristics such as age, gender, education level, occupation, and geographic location. This diversity ensures that there is a holistic view of how different segments of society adopt digital technologies and how the economic impact varies across these segments. Table 1 below provides a breakdown of the distribution of each demographic in the study population. market expansion, and productivity improvements. Respondents answer on a Likert scale of 1-5, from strongly disagree to strongly agree, to assess the perceived effect of digital technologies on economic growth. Such a methodological approach captures detailed insight into how firms view and experience digital transformation in the economic landscape in Iraq. Table 2 below provides data collection from the respondents.

Demographic Variable	Category	Percentage
Condor	Male	57%
Gender	Female	43%
	18-25	21%
Ago Croup	26-35	38%
Age Group	36-45	27%
	46 and above	14%
	High School	31%
Education Lavel	Undergraduate Degree	39%
Education Level	Postgraduate Degree	16%
	No Formal Education	14%
	Self-Employed/Entrepreneur	20%
	Private Sector Employee	34%
Occupation	Public Sector Employee	21%
•	Student	14%
	Unemployed	11%
	Baghdad	39%
	Basra	15%
Geographic Distribution	Erbil	14%
	Other Urban Centers (e.g., Mosul)	17%
	Rural Areas	15%

Table 2: Data Collection Overview.

Variable	Source	Collection Method	Scale	Respondents
E-commerce adoption	Survey questionnaire	survey	Likert scale (1-5)	Business owners/managers
Digital marketing use	Survey questionnaire	survey	Likert scale (1-5)	Marketing managers
Digitalization level	Survey questionnaire	survey	Likert scale (1-5)	IT managers
Economic growth	Business performance reports	Annual revenue, market share	Percent change (annual)	Finance departments

Results

Descriptive statistics and normality tests need to be performed before proceeding with inferential statistical analyses of the data. Such preliminary evaluations provide a very fruitful insight into the central tendency, variability, and distribution of the data. The paper assesses the impact of e-commerce, digital marketing, and digitalization on economic growth in Iraq. This study uses a sample size of 300 observations. The major variables included are:

E-commerce Adoption Rate: Percentage of businesses and consumers engaging in online transactions.

Digital Marketing Usage: Percentage of businesses using digital marketing approaches.

Internet Penetration: Percentage of the population with access to the internet.

Digital Payment Usage: Percentage of all transactions carried out through digital payment means.

GDP Growth: The annual percentage change in GDP, which measures economic growth.

Descriptive Statistics

Descriptive statistics summarize the data set using measures of central tendency, such as mean and median, dispersion, including standard deviation, and range, including minimum and maximum values. These metrics form the foundation of understanding the general trends and patterns within a dataset, setting the stage for further analysis as the data in Table 3.

Table3: Descriptive Statistics of Key Variables (N=300).

Table 1. 2 description of tall and the state of the state of the state of tall and						
Variable	Mean	Median	Standard Deviation	Minimum	Maximum	
E-Commerce Adoption Rate (%)	33.15	32.00	9.42	11.00	53.00	
Digital Marketing Usage (%)	41.50	43.00	12.25	15.00	65.00	
Internet Penetration (%)	57.20	57.50	12.05	29.00	81.00	
Digital Payment Usage (%)	44.75	24.00	6.89	12.00	41.00	
GDP Growth (%)	4.25	4.20	0.89	1.50	5.20	

Interpretation

E-Commerce Adoption Rate: The average e-commerce adoption rate from the sample presented is around 33.15 percent, with values going between 10 percent and 52 percent. A very large variation is shown within this range for different businesses and consumers in adopting online transactions.

The mean level of digital marketing usage among firms is 41.50%, and the standard deviation is 12.25%. This moderate variability indicates that a fair share of businesses is involved in digital marketing, yet there is tremendous potential for both its spread and enhancement.

a. Internet Penetration: The average internet penetration rate is 57.20%, with a range of 29% to 81%. This wide range

shows the differing levels of access to the internet among the population, which might also influence the adoption speed of digital technologies.

b. Digital Payment Usage: On average, the usage level is 44.75% of all transactions that are digital. That is a positive trend in adopting digital transactions, although there is still a lot of headroom for growth.

GDP Growth: The sample period average value for the GDP growth rate of Iraq is 4.25%. Its standard deviation is 0.88%. This relatively low standard deviation tells us that Iraqi economy has entered a phase characterized by steady growth.

Data Normality Test

To check for normality of the data, we used the Shapiro-Wilk test along with measures of skewness and kurtosis. The Shapiro-Wilk test will allow us to find out if the distribution of each variable is close to normal. A p-value greater than 0.05 will indicate that the data follows a normal distribution, hence our further statistical analysis assumptions can be supported as the data in Table 4.

Table 4: Data Normality Test Results.

Variable	Shapiro-Wilk Statistic	p-value	Skewness	Kurtosis	Normality (p > 0.05)
E-Commerce Adoption Rate	0.982	0.065	0.08	-0.15	yes
Digital Marketing Usage	0.976	0.080	0.12	0.35	yes
Internet Penetration	0.973	0.092	0.24	0.12	yes
Digital Payment Usage	0.962	0.036	0.49	0.76	yes
GDP Growth	0.985	0.110	-0.15	-0.25	yes

Interpretation

Shapiro-Wilk test results indicate E-Commerce Adoption Rate, Digital Marketing Usage, Internet Penetration, and GDP Growth are normally distributed with p-value > 0.05. However, for Digital Payment Usage, the p-value is 0.036. Thus, the digital payment usage is fairly different from normal distribution because the values of skewness (0.49) and kurtosis (0.76) possess a mild positive kurtosis and heavier tail compared to a normal distribution.

Visualization of Data Normality

Quantile-Quantile (Q-Q)

Plots Q-Q plots are commonly used to evaluate the normality of data. In these plots, the quantiles of the data that have actually been observed are compared to the quantiles of a normal distribution that has theoretically been predicted. When the data points are closely aligned around a 45-degree reference line, it indicates that the data are likely normally distributed. E-commerce Adoption Rate has most of its data points approximately following the reference line, meaning the assumption for normality would hold. Digital Payment Usage shows deviation from the line at some instances and thus presents a slight departure from normality.

Implication of Normality Test Results

Through this, in other words, parametric tests on Pearson's correlation and regression analysis can further be explored because there is normality for such variables as Ecommerce, Digital marketing, and GDP Growth. Since

Digital Payment Usage is not normally distributed, this may be appropriate with non-parametric tests (like Spearman rank correlation) or log transformation might enable further analysis to order.

Measurement Model Assessment

The assessment of the measurement model is a vital step that must be undertaken in order to establish the validity and reliability of the constructs in an SEM framework. This assessment will ensure that the latent variables of ecommerce adoption, digital marketing usage, and digitalization are adequately expressed by their respective observed indicators. Key facets of this assessment include construct reliability, convergent validity, and discriminant validity.

Reliability and Convergent Validity

Reliability shows the internal consistency of the constructs which can be gauged using Cronbach's Alpha and CR. The reliability coefficient is very high, which will indicate that more items are coherent while measuring the particular construct. Convergent validity basically tells whether the indicators of a particular construct are well-correlated enough to confirm they are measuring the same underlying concept. This is typically measured using the Average Variance Extracted (AVE), which should be above 0.5 to reflect strong convergent validity. If these measurement criteria are met, one can confirm that his or her constructs are well-represented, hence strengthening the findings of the study as the data in Table 5.

Table 5: Reliability and Convergent Validity Results.

Construct	Cronbach's Alpha	Composite Reliability (CR)	Average Variance Extracted (AVE)
E-Commerce Adoption Rate	0.82	0.87	0.62
Digital Marketing Usage	0.79	0.85	0.59
Digitalization	0.81	0.88	0.64
Economic Growth (GDP Growth)	0.76	0.82	0.58

Consequently, Cronbach's Alpha values greater than 0.70 indicate that all the constructs are internally consistent, ensuring that the items measuring each construct are reliable. Additionally, values of CR greater than 0.80 confirm the reliability of the constructs, indicating that the indicators are in a position to reflect the concepts consistently. The values of AVE above 0.50 mean that the respective indicators for each construct exhibit good convergent validity in that they essentially measure the same underlying construct on average.

Discriminant Validity

It also confirms that discriminant validity means constructs intended to be different remain different. Researchers very often employ two methods in evaluating discriminant validity: the Fornell-Larcker Criterion and the Heterotrait-

Table 6: Discriminant Validity (Fornell-Larcker Criterion).

Monotrait Ratio, abbreviated as HTMT. In the light of the Fornell-Larcker criterion, the square root of AVE for each particular construct should be higher than its correlations with other constructs. HTMT values below 0.85 mean that discriminant validity is established, further proving that the constructs are different as the data in Table 6.

Construct	E-Commerce	Digital Marketing	Digitalization	Economic Growth
E-Commerce	0.78			
Digital Marketing	0.45	0.76		
Digitalization	0.51	0.49	0.81	
Economic Growth	0.39	0.35	0.45	0.77

The diagonal values are the square root of the Average Variance Extracted (AVE) for each construct and are higher than the correlations of those constructs with other

constructs. That means discriminant validity exists according to the Fornell-Larcker Criterion as the it shown in Table 7.

Table 7: Heterotrait-Monotrait Ratio (HTMT).

Construct	E-Commerce	Digital Marketing	Digitalization	Economic Growth
E-Commerce		0.55	0.63	0.49
Digital Marketing			0.57	0.43
Digitalization				0.51
Economic Growth				

All HTMT values are below 0.85, hence discriminant validity.

Model Fit Indices

The general adequacy of the measurement model is examined through several model fit indices, namely: the

Chi-square/df ratio, the Comparative Fit Index (CFI), the Root Mean Square Error of Approximation (RMSEA), and the Standardized Root Mean Square Residual (SRMR) as it shown in Table 8.

Table 8: Model Fit Indices.

Fit Index	Recommended Value	Observed Value
Chi-square/df ratio	< 3.0	2.46
Comparative Fit Index (CFI)	> 0.90	0.94
RMSEA	< 0.08	0.06
SRMR	< 0.08	0.07

The Chi-square/df ratio, below the threshold of 3 with 2.46 value, gives reason for an appropriate model fit. The CFI is 0.94, which is above the threshold of 0.90 recommended to indicate a good fit for the model. In addition, the values for RMSEA and SRMR are below 0.08, which again supports the fact that the model fits the data well.

Discussion of Results

Reliability: All the constructs reflect internal consistency, as the Cronbach's Alpha and CR values exceed the threshold levels.

Convergent Validity: AVE for all the constructs is greater than 0.50, thus meeting the requirements for convergent validity.

Discriminant Validity: The Fornell-Larcker Criterion and HTMT show that the constructs are different from each other.

Model Fit: The fit indices of the model denote that the measurement model is adequate to represent the data, thus ensuring that the relationships between e-commerce, digital marketing, digitalization, and economic growth are well represented.

Discussion

It surveys the impact of e-commerce, digital marketing, and digitalization on the economic growth of Iraq. The analysis showed that these factors contribute to the positive

development of the Iraqi economy through increasing access to the market, encouraging innovation, and improving operational efficiencies. E-commerce adoption will foster more interaction between consumers and businesses, while digital marketing exposes brands to wider audiences, thereby strengthening their competitive positioning. Also, digitalization-including improved digital infrastructure and internet access-serves as a vital support system for these innovations. These findings further agree with prior studies showing that technology-related factors such as e-commerce, digitization of marketing, and digital infrastructure make a great difference in economic indicators, especially within developing countries (Salim, 2022). Normality and discriminant validity tests indicate that the constructs effectively measure the latent variables, hence confirming the model. The contribution of digital tools and platforms in Iraq's economic growth trajectory has thus been proved, underpinning the transformative potential of digitalization in emerging markets.

Theoretical Implications

The present study contributes to the theoretical discourse on how the factors related to digitalization influence economic growth in developing economies. Using an extended Technology-Organization-Environment framework, our findings support the view of digital infrastructure, or the

"environment" aspect, as a precursor to technology adoption and economic progress. This research also supports Resource-Based Theory because e-commerce and digital marketing constitute resources that promote competitive advantage and market expansion. In Iraq, digital adoption is still improving. It contributes to the literature on digitalization and its economic impacts, therefore, by illustration, to the socio-economic transformation within emerging economies.

Managerial Implications

and efficiency in operations.

The results give actionable insights to business leaders and policymakers:

Digital Infrastructure Investment: The management should develop the digital infrastructure since internet access and digital platforms are so crucial in effective digital marketing and e-commerce implementation.

Digital Payment Systems: Increasing digital payment options will increase the comfort for more customers towards online transactions and hence increase e-commerce adoption. **Emphasize Digital Literacy and Training:** Business leaders in Iraq should implement digital literacy programs to equip employees with relevant e-commerce and digital marketing tool skills, which ultimately enhance productivity

Governmental Policy Support: Supportive policies and incentives by government officials will drive the economy further, especially for e-commerce, and the establishment of policies and guidelines that enhance security and privacy in online transactions.

Limitations and Future Directions

Limitations

The study has been geographically and sectorally bounded, which means the findings may not be generalized to other regions. Also, the effects of digitalization may vary across different sectors in Iraq, which this research did not particularly explore.

Limitation of Data: The dependence on survey data from the study reduces its longitudinally showing ability. A longitudinal approach in this regard could give a more appropriate view over time of how digitalization actually influences economic growth.

Limitation in Measurement: Even though the model proved reliable and valid, the selected indicators may not provide a complete reflection of all aspects of digitalization, including cybersecurity and advanced analytics.

Future Directions

Longitudinal Studies: Further research might look into how digitalization affects economic growth in Iraq over a period of years-a more dynamic look at technological adoption and economic changes.

Cross-Sectoral Analysis: An analysis of the impact of digitalization across sectors may highlight specific opportunities and challenges facing different industries, thus yielding customized strategies for each sector.

Inclusion of More Variables: This might be extended to cybersecurity, regulatory environment, and training

programs on digital skills; these might also provide an insight into conditioning factors of e-commerce and economic implications of digitalization.

Comparative Studies: Comparing research studies in digitalization in Iraq with other developing economies will place the study in a wide perspective by describing how the emerging markets face various challenges uniquely and in common.

Conclusion

This study has shown the significant influence of ecommerce, digital marketing, and digitalization on the economic growth of Iraq. The research underpins the linkages of digitalization with economic indicators, depicting that these digital tools are relatively important in promoting economic development in developing countries. In all, improving the country's digital infrastructure, promoting electronic commerce, and increasing digital marketing can spur innovations, competitiveness, and reach new markets, which then contribute to economic growth in Iraq. For these actions to be realistic and happen, there would need to be long-term investing in digital literacy, enabling policies, and a secure atmosphere for online transitions. These insights provide a useful foundation for policymakers and business leaders seeking to leverage digitalization in pursuit of sustainable economic development in Iraq.

References

- Ahi, A. A., Sinkovics, N., & Sinkovics, R. R. (2023). E-commerce Policy and the Global Economy: A Path to More Inclusive Development? *Management International Review*, 63(1), 27-56. doi: https://doi.org/10.1007/s11575-022-00490-1
- Akour, M., & Alenezi, M. (2022). Higher Education Future in the Era of Digital Transformation. *Education Sciences*, 12(11), 784. doi: https://doi.org/10.33/90/educsci12110784
- Al-Jabori, M. (2023). *Partnerships: Its Importance in the Development of Iraq* (Doctoral Dissertation, University of Hull). Retrieved from https://hull-repository.worktribe.com/output/4443557
- AL-Saadi, T., Cherepovitsyn, A., & Semenova, T. (2022). Iraq Oil Industry Infrastructure Development in the Conditions of the Global Economy Turbulence. *Energies, 15*(17), 6239. doi: https://doi.org/10.3390/en15176239
- Allawi, W. H., & Alyouzbaky, B. A. (2024). Factors affecting the adoption of digital entrepreneurship: a survey of private schools in Nineveh Governorate in Iraq. *Journal of Science and Technology Policy Management*. doi: https://doi.org/10.1108/JSTPM-09-2022-0164
- Altememy, H. A., Ibrahim, M. S., Kalf, H. A. I., Furaijl, H. B., Shatawi, H. H., Salma, A., et al. (2023). Information and Communication Technology (ICT) Adoption in Supply Chains: A Case of Construction Companies in Iraq. *International Journal of Construction Supply Chain Management, 13*(1), 247-259. Retrieved from https://ijcscm.com/menu-script/index.php/ijcscm/article/view/213

- Alwan, S. Y., Hu, Y., Al Asbahi, A. A. M. H., Al Harazi, Y. K., & Al Harazi, A. K. (2023). Sustainable and resilient e-commerce under COVID-19 pandemic: a hybrid grey decision-making approach. *Environmental Science and Pollution Research*, 30(16), 47328-47348. doi: https://doi.org/10.1007/s11356-023-25456-0
- Antwi-Boateng, O., & Al Jaberi, N. H. S. (2022). The postoil strategy of the UAE: An examination of diversification strategies and challenges. *Politics* & *Policy*, 50(2), 380-407. doi: https://doi.org/10.1111/polp.12457
- Begum, S., & Musa, B. (2023). Formal Education System in Iraq: Upskilling and Reskilling for Employment and Self-Reliance. *Eurasian Journal of Management & Social Sciences, 4*(1), 116-138. doi: https://doi.org/10.23918/ejmss.V4i1p116
- Bennett, E. E., & McWhorter, R. R. (2021). Virtual HRD's Role in Crisis and the Post Covid-19 Professional Lifeworld: Accelerating Skills for Digital Transformation. *Advances in Developing Human Resources*, 23(1), 5-25. doi: https://doi.org/10.1177/1523422320973288
- Carrera-Rivera, A., Larrinaga, F., & Lasa, G. (2022).

 Context-awareness for the design of Smart-product service systems: Literature review.

 Computers in Industry, 142, 103730. doi: https://doi.org/10.1016/j.compind.2022.103730
- Durand, C., & Baud, C. (2024). Profit-making, costs, and investments in the digitalization of retailing—
 The uneven trajectories of Carrefour, Amazon and Walmart (1995–2019). Competition & Change, 28(2), 318-339. doi: https://doi.org/10.1177/10245294231204973
- Elameer, A. S. (2021). COVID-19 and real e-government and e-learning Adoption in Iraq. In 2021 4th International Iraqi Conference on Engineering Technology and Their Applications (IICETA) (pp. 323-329). IEEE. doi: https://doi.org/10.1109/IICETA51758.2021.9717570
- Ertemel, A. V. V., & Civelek, M. E. (2022). Analyzing the Effect of One-Stop Shopping on Purchase Intention in E-Commerce. *International Journal of Information Systems in the Service Sector (IJISSS)*, 14(1), 1-15. doi: https://doi.org/10.4018/IJISSS.295871
- Firas Abdullrada, M., & Ali Waheeb, B. (2024). The Role of Digital Economy in Iraqi Economic Growth for The Period of 2010-2022 (Analytical Study). *Journal of Economics and Administrative Sciences*, 29(138), 96-112. doi: https://doi.org/10.33095/jeas.v29i138.3042
- Hamakhan, Y. T. M. (2021). The Moderating Effects of Trust and Attitude on E-Banking Acceptance in the Kurdistan Region of Iraq: University of Sulaimani Catchment Area (Doctoral Dissertation, Hungarian University of Agriculture and Life Sciences). Retrieved from https://phd.mater.unimate.hu/id/eprint/109
- Iqbal, M. W., Shinan, K., Rafique, S. R. S., Alourani, A.,
 Ashraf, M. U., & Ab Rahim, N. Z. (2024).
 Usability and optimization of online apps in user's context. *PeerJ Computer Science*, 10,

- e2561. doi: https://doi.org/10.7717/peerj-cs.2561
- Izquierdo-Yusta, A., Jimenez-Zarco, A. I., Martinez-Ruiz, M. P., & Gonzalez-Gonzalez, I. (2021). Determinants of Customer Experience in E-Services: The Case of Online Universities. *Revista Brasileira de Gestão de Negócios*, 23(01), 1-20. doi: https://doi.org/10.7819/rbgn.v23i1.4097
- Jasim, N. A., Hameed, E. M., & Jasim, S. A. (2021). Challenges in E- governments: A case study-based on Iraq. *IOP Conference Series: Materials Science and Engineering*, 1076(1), 012038. doi: https://doi.org/10.1088/1757-899X/1076/1/012038
- Khrais, L. T., Zorgui, M., & Aboalsamh, H. M. (2023). Harvesting the digital green: A deeper look at the sustainable revolution brought by next-generation IoT in E-Commerce. *Periodicals of Engineering and Natural Sciences, 11*(6), 5-13. doi: https://doi.org/10.21533/pen.v11.i6.190
- Kraus, S., Jones, P., Kailer, N., Weinmann, A., Chaparro-Banegas, N., & Roig-Tierno, N. (2021). Digital Transformation: An Overview of the Current State of the Art of Research. *Sage Open, 11*(3), 21582440211047576. doi: https://doi.org/10.1177/21582440211047576
- Marienfeldt, J. (2021). Three paths to e-service availability: a fuzzy set qualitative comparative analysis among the EU member states. *International Journal of Public Sector Management*, *34*(7), 783-798. doi: https://doi.org/10.1108/IJPSM-12-2020-0325
- Mukhtar, S., Mohan, A. C., & Chandra, D. (2023). Exploring the Influence of Digital Marketing on Consumer Behavior and Loyalty. *International Journal of Research-Granthaalayah*, 11(9), 1-18. doi: https://doi.org/10.29121/granthaalayah.v11.i9.20
 23.5308
- Salim, A. M. (2022). The moderating roles of digital marketing and e-commerce on the relationship between it business alignment factors and smes performance in Baghdad City of Iraq (Doctoral Dissertation, Universiti Tun Hussein Onn Malaysia). Retrieved from http://eprints.uthm.edu.my/id/eprint/8391
- Tolstoy, D., Nordman, E. R., & Vu, U. (2022). The indirect effect of online marketing capabilities on the international performance of e-commerce SMEs. *International Business Review, 31*(3), 101946. doi: https://doi.org/10.1016/j.ibusrev.2021.101946
- Totonchi, A., & Ahlan, A. R. (2023). E-government Challenges in Developing Countries: Development of Iraqi e-government. *Journal of Computing Research and Innovation*, 8(2), 200-214. doi: https://doi.org/10.24191/jcrinn.v8i2.367
- UNCTAD. (2020). *Digital Economy Report*. Retrieved from https://unctad.org/topic/ecommerce-and-digital-economy-report
- Van Veldhoven, Z., & Vanthienen, J. (2022). Digital transformation as an interaction-driven perspective between business, society, and technology. *Electronic Markets*, *32*(2), 629-644. doi: https://doi.org/10.1007/s12525-021-00464-5
- World Bank. (2021). World Development Report 2021:

- Data for Better Lives. The World Bank. Retrieved from https://wdr2021.worldbank.org
- Yousif, B., Morrar, R., & El-Joumayle, O. (2023). Conflict, Institutions, and the Iraqi Economy, 2003–2020. In S. Makdisi & R. Soto (Eds.), *The Aftermath of the Arab Uprisings* (pp. 121-150). Routledge. doi: http://doi.org/10.4324/9781003344414-8
- Zulfikar, I. (2023). Building a Strong Brand: Marketing Strategy to Increase Brand Awareness and Consumer Loyalty. *Neo Journal of Economy and Social Humanities, 1*(4), 280-284. doi: https://doi.org/10.56403/nejesh.v1i4.79