IMPACT OF TRANSPORTATION ACCESSIBILITY ON ECONOMIC GROWTH AT UAE MARITIME INDUSTRY

Iman A. Akour [1], Barween Al Kurdi [2], Muhammad Turki Alshurideh [3], Ahmad AlHamad [4]

[1] Department of Information Systems, College of Computing and Informatics. University of Sharjah, Sharjah 27272, United Arab Emirates,: iakour@sharjah.ac.ae

[2] Department of Marketing, Faculty of Economics and Administrative Sciences, The Hashemite University, P.O. Box 330127, Zarqa 13133, Jordan. Orcid [0000-0002-0825-4617], barween@hu.edu.jo

[3] Department of Marketing, School of Business, The University of Jordan, Amman 11942, Jordan, Orcid [0000-0002-7336-381X], m.alshurideh@ju.edu.jo

[4] Department of Management, College of Business, University of Sharjah, Sharjah 27272, United Arab Emirates. aalhamad@sharjah.ac.ae

ABSTRACT

This research is aimed to explore an environmentally beneficial investment in sustainable transportation should be made in a way that ensures steady growth of economy. The transportation system's time savings were invested back into society's economic input-output relationships, which raised the income level. This research provides theoretical view from literature that the infrastructure can increase accessibility while also increasing industry productivity. More specifically, this research has exposed collaboration occurs when industries retain adequate productivity in their relationships with accessibility. The maritime industry was targeted to assess the impact of transportation accessibility on economic growth, that concludes government authorities must seek the optimal collaboration between transportation plans and economic development strategies.

Keywords*: Transportation Accessibility, Economic Development, Maritime industry UAE.*

1. INTRODUCTION

Transportation is considered as crucial to a company's and a nation's reputation, economic growth and transportation share many similarities [1], [2]. Take China as an example, where the manufacturing capacity and operations have increased significantly over time due to the country's extremely efficient transport sector as a result, the Chinese marketplaces have gained significant reputation and high levels of profitability in a variety of global markets [3]–[5]. Accessibility to transportation enables businesses to expand and grow their markets [6]. Moreover, giving everyone in society equal access to transportation is not feasible economically [7], [8]. Despite being able to achieve the perfect condition, we would have wasted resources that could have been used more effectively for another company project. [9], [10].

Therefore, an economy should maximize the transportation investment in a way that provides efficient accessibilities for productive customers while ensuring that the socially vulnerable preserve at least the necessary accessibility [11]–[13]. This study would advise actions we should do to enable "meaningful accessibility" for the entire economy of society in the same setting [14], [15]. in order to provide a deep study on important factor of a nation this research is aimed to identify the impact of transportation accessibility on economic growth in Maritime industry UAE. Transportation accessibility is considered as independent variable while economic growth is dependent variable of the research.

2. LITERATURE REVIEW

2.1. Transport Accessibility and Economic Growth

[16] stated that the effect of the transport accessibility on economic growth is notable, as the rise and development of the transport industry aids to many factors that trigger economic growth [17]–[19]. Initially, the emergence of the transport industry itself has creates jobs in all dimensions and phases of it from the manufacturing of transport vehicles to drivers who drive the vehicles, the boom of the industry itself is constantly creating jobs and reducing unemployment [20], [21]. Moreover, transport accessibility provides the facility to transport goods, which is a crucial aspect in trading [22]–[24]. Transportation is the base of a distribution channel, and the method of distributing products from manufacturer to supplier, to wholesaler and then to the market retailer [25]–[27]. The aiding factor of transport in all industries and markets is the facilitation it provides

to safely carry goods from manufacturer to customer [28], [29], which is proving to be an all-rounder factor in triggering several points which assist in increasing economic growth employment, income spending, production etc [30]–[32]. Safe and sound transportation significantly lowers the cost of transporting goods as well as people (travel) [33], as one mean of safety and assurance would minus all other related costs and the upcoming costs in case of damaged goods [34]–[37]. The transportation of people increases productivity in an economy, which enables people to work and look for jobs in places which may seem inaccessible and far away [38], which also is another factor encouraging the economic growth which also provides an improved standard of living [39]–[41]. Furthermore, the output of goods and the influx of their availability increases, as the quick availability of goods will conflict with the demand supply rule [42], as efficient supply will maintain the demand and fight off inflation ticking another box for economic growth [43], [44]. Although transportation accessibility may seem favorable, it is essential to still evaluate the costs and expenditure which comes with it [45].

The economic growth and transport have a lot of things in common because the reputation of a company and country is highly dependent on transport [46]–[48]. Consider the example of China where the transport industry is highly efficient and that's why the operations and businesses in China have seen a lot of growth and production capacities overtime [49]–[51]. And for this reason, the Chinese markets have seen a lot of fame and high profitability in many different markets around the world [52], [53]. The transport accessibility allows companies to develop and grow their markets [54]–[57]. China Pakistan Economic Corridor where the Chinese government has invested a huge amount of money to build a huge rail and road network from South Asia to Africa and that's why it will allow a lot of communities and economies to develop overtime [58]. The CPEC is playing a huge role in the development of a lot of economies [59], [60]. The importance of transportation in CPEC is there because if people are not efficiently moving their goods and products from one to another then they are not contributing towards their economies [61], [62]. And that's why the underdeveloped countries have not grown their economies because of their poor transportation systems [63], [64].

2.2. Transportation Accessibility and Maritime Industry

[65] stated that maritime transportation industry has been one of the oldest methods of transportation of goods and people in human history [66], [67]. Maritime transport is waterborne

transport and it has only aided to transport accessibility, as connection by land may not always be possible and favorable by geographical conditions [68]–[70], but waterborne transport is a feasible and cost-effective method widely used by people to transport goods from one place to another [71], [72]. The initial availability and reliability begins from the geographical factors of the original destination, up to the arrival destination, only then will this method of transport will be possible [73], [74].

Moreover, the maritime industry has only proven to be fruitful in terms of creating employment and more so boosting the import and export industry of a country [75]–[79]. From the engineering of ships and containers to development and management of ports, this industry has only flourished with time regardless of many other innovations and inventions in the transport industry which are deemed quicker and efficient [80], [81], such as air cargo and land cargo, but sea freight cargo still remains a method which is the first choice of many individuals and firms – mainly because of its low cost factor [82], [83]. It is an observed fact that cities with ports for example, Karachi, Dubai and Shanghai have offered immense opportunities and have caused an influx of productivity and economic growth to the government and to the people of the cities [84]–[86]. This factor of a port has initiated a lot of migration for work, as the described cities are mainly home to immigrants and expatriates who have traveled for work and an abundance of population is employed at ports [87].

Furthermore, this availability has caused a great impact in the export and import of products from continent to another, which has divided gaps and has turned the world into what we now know as the ‘global village,’ as business activity stretched beyond borders [88], [89], supplying specially manufactured products and creating strong ties between governments [90]–[92]. Due to such developments, the innovation that has occurred and is constantly being upgraded in the industry is notable [93]–[95]. There are multiple technological advancements that are being carried out to improve and create more efficiency in modifying ports, clearing out water channels [96], creating and engineering safe freight water vehicles and increasing the size capacity of vessels such as containers, tankers, bulk carriers etc [97]–[99]. Therefore, the correlation between GDP and global economic trade will constantly keep this form of transportation a crucial one despite many available alternatives and developments [100]–[102]. A negative aspect of this industry, as voiced by environmental experts and advocates [103], is the extreme impact on marine life and the destruction of habitats as well as the vast increase in greenhouse gases that originates from

maritime transport [104], creating this as an external cost towards the industry as well as gaining backlash from a mass number of environmental advocates [105]–[107].

The maritime industry too sees a huge fame and growth if the accessibility of transport is there. For example, if people sitting in Bangladesh have to export and transport their goods i.e. fish from one place to another then it is highly important to have an efficient transport service in order to transport their goods from one place to another [108]–[110]. This is because of the reason that a lot of customers wait for the products too and that's why for maritime industry, the availability of transport is highly important to play a bigger role in the development of economies and companies [71], [111].

2.3. Impact of Maritime Industry on Economic Growth

[112]–[114] stated that the impact the maritime industry has created in terms of economic growth is massive, since maritime transportation industry has created multiple jobs in several sectors which are directly or indirectly related to it [73], [115]–[117]. The government gains tax revenue through ports, through custom charges, taxes as well as port being under the public sector, which aids to in filling in the government expenditure and crating government jobs for individuals [118], [119]. Moreover, the industries which have emerged due to maritime transport are countless – one being the cargo shipment industry [75], [120]. People relocate from country to country and prefer taking their belongings with them, which is cost effectively possible through cargo shipments [121]–[123]. Apart from relocation, it is notable how products are imported and exported – from technological devices and appliances to dry fruit and cattle maritime transport has proven to be a one stop solution for many problems [124], [125]. Sea passenger transport may seem outdated, but it has been an existing method for transport all over the world in the past, and is still carried out in some parts of the world today, mainly for leisure and national transportation region to region [126]–[128]. It may be time consuming but it is still a notable method of transport, which again improves the travel and productivity of individuals [129], [130]. About 90% of the world's trade is carried out through sea transport, which also generates regional and international employment as well as an increase in the GDP, along with aiding in a positive BOP (Balance of Payments) [131]–[133].

[134], [135] stated that economies always prosper when the economic growth is there and that's why transportation in the economies is important for this reason [136], [137]. A lot of developed

countries have efficient means of transport and that's they have seen a lot of growth and developments in their regions [76], [138], [139]. For example, if there is a flood in the coastal regions of the United States, the help and relief teams are easy to reach there on time because of the efficient transportation in their regions and that's why its east for them to deliver the products on time and that's why transportation plays an important role for the growth of economies.

2.4. General Research Model

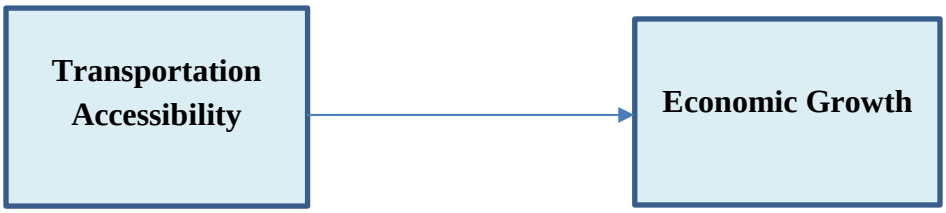

Figure 1: Conceptual Research Model

3. DISCUSSION

This research provided a deep insight about environmental protection and economic growth are both necessary for sustainable development. The theoretical analysis of this research focuses on achieving sustainable environmental protection as opposed to sustainable economic growth. For this reason, the study established that increased transportation accessibility and the local production system interact reciprocally to produce the overall benefits from a transportation investment. Additionally, this research demonstrated that the relationship between accessibility and the economy only makes sense when each component continues to produce at a reasonable level. Similarly, in order to alter ports, clear waterways, design and engineer safe freight water vehicles, and increase the size capacity of vessels such as containers, tankers, bulk carriers, etc.,

there are several technological developments being carried out. Despite the availability of many alternatives and technological advancements, this mode of transportation will continue to be essential given the relationship between GDP and global economic commerce.

4. CONCLUSION

Facilitating the transportation sector, the best method to meet the objectives of environmental sustainability, economic growth, and equal distribution of accessibility is to run the system as efficiently as possible. Transportation investments are recognized as an essential component of society's overall production system. The relationships between transport accessibility is able to determine the special benefit to the growth of economy. Many industrialized nations have effective transportation systems, and as a result, their regions have experienced significant growth and development. As a result, it is simple to deliver the goods on time, thus transportation is crucial for the development of economies.

REFERENCES

[1] S. Goria, "A DECK OF CARDS TO HELP TRACK DESIGN TRENDS TO ASSIST THE," *Int. J. Technol. Innov. Manag. (IJTIM), 2(2).*, vol. 2, no. 2, pp. 1–17, 2022.

[2] T. M. Ghazal, E. Rehman, M. A. Khan, T. R. Soomro, N. Taleb, and M. A. Afifi, "Using blockchain to ensure trust between donor agencies and ngos in under-developed countries," *Computers*, vol. 10, p. 8, Aug. 2021.

[3] H. Alzoubi, B. Kurdi, I. Akour, and M. Alshurideh, "The effect of blockchain and smart inventory system on supply chain performance: Empirical evidence from retail industry," *Uncertain Supply Chain Manag.*, vol. 10, no. 4, pp. 1111–1116, 2022.

[4] E. P. Mondol, "The Impact of Block Chain and Smart Inventory System on Supply Chain Performance at Retail Industry," *Int. J. Comput. Inf. Manuf.*, vol. 1, no. 1, pp. 56–76, 2021, doi: 10.54489/ijcim.v1i1.30.

[5] P. S. Ghosh, S., & Aithal, "BEHAVIOUR OF INVESTMENT RETURNS IN THE DISINVESTMENT," *Int. J. Technol. Innov. Manag. (IJTIM), 2(2).*, vol. 2, no. 2, pp. 65–79, 2022.

[6] M. T. Alshurideh, B. Al Kurdi, and S. A. Salloum, "The moderation effect of gender on accepting electronic payment technology: a study on United Arab Emirates consumers," *Rev. Int. Bus. Strateg.*, 2021.

[7] H. M. Alzoubi, T. M. Ghazal, M. T. Alshurideh, B. Al Kurdi, and K. M. K. Alhyasat, "The effect of e-payment and online shopping on sales growth: Evidence from banking industry," *Int. J. Data Netw. Sci.*, vol. 6, no. 4, pp. 1369–1380, 2022, doi: 10.5267/j.ijdns.2022.5.014.

[8] M. El Khatib, S. Hamidi, I. Al Ameeri, H. Al Zaabi, and R. Al Marqab, "Digital Disruption and Big Data in Healthcare-Opportunities and Challenges," *Clin. Outcomes Res.*, vol. 14, pp. 563–574, 2022, doi: 10.2147/CEOR.S369553.

[9] M. Alshurideh, B. Al Kurdi, S. A. Salloum, I. Arpaci, and M. Al-Emran, "Predicting the actual use of m-

learning systems: a comparative approach using PLS-SEM and machine learning algorithms," *Interact. Learn. Environ.*, pp. 1–15, 2020.

[10] C. T. Amponsah, G. Ahmed, M. Kumar, and S. Adams, "The business effects of mega-sporting events on host cities: An empirical view," *Probl. Perspect. Manag.*, vol. 16, no. 3, pp. 324–336, 2018, doi: 10.21511/ppm.16(3).2018.26.

[11] H. Alzoubi, M. Alshurideh, B. Kurdi, B. Obeidat, S. Hamadneh, and A. Ahmad, "The influence of supply chain partners' integrations on organizational performance: The moderating role of trust," *Uncertain Supply Chain Manag.*, vol. 10, no. 4, pp. 1191–1202, 2022.

[12] B. Amrani, A. Z., Urquia, I., & Vallespir, "INDUSTRY 4.0 TECHNOLOGIES AND LEAN PRODUCTION COMBINATION: A STRATEGIC METHODOLOGY BASED ON LINKS QUANTIFICATION Anne Zouggar Amrani, Ilse Urquia Ortega, and Bruno Vallespir," *Int. J. Technol. Innov. Manag. (IJTIM), 2(2).*, vol. 2, no. 2, pp. 33–51, 2022.

[13] T. M. Ghazal, H. M. Alzoubi, R. Naqvi, T. R. Soomro, and M. T. Alshurideh, "The Nexus Between Big Data and Decision-Making: A Study of Big Data Techniques and Technologies," in *The International Conference on Artificial Intelligence and Computer Vision*, 2021, pp. 838–853.

[14] M. Alshurideh, B. Al Kurdi, and S. Salloum, "Investigating a theoretical framework for e-learning technology acceptance," *Int. J. Electr. Comput. Eng.*, vol. 10, no. 6, pp. 6484–6496, 2020.

[15] M. El Khatib, H. M. Alzoubi, A. Al Mulla, and W. Al Ketbi, "The Role of Blockchain in E-Governance and Decision-Making in Project and Program Management," *Adv. Internet Things*, vol. 12, no. 03, pp. 88–109, 2022, doi: 10.4236/ait.2022.123006.

[16] G. Ahmed and A. Rafiuddin, "Cultural Dimensions of Economic Development: A Case of UAE," *Theor. Econ. Lett.*, vol. 08, no. 11, pp. 2479–2496, 2018, doi: 10.4236/tel.2018.811160.

[17] H. M. Alzoubi, B. Al Kurdi, M. Alshurideh, I. Akour, B. Obeidat, and A. Alhamad, "The role of digital marketing channels on consumer buying decisions through eWOM in the Jordanian markets," *Int. J. Data Netw. Sci.*, vol. 6, no. 4, pp. 1175–1185, 2022, doi: 10.5267/j.ijdns.2022.7.002.

[18] S. Akhtar, A., Bakhtawar, B., & Akhtar, "EXTREME PROGRAMMING VS SCRUM: A COMPARISON OF AGILE MODELS Asma Akhtar, Birra Bakhtawar, Samia Akhtar," *Int. J. Technol. Innov. Manag. (IJTIM), 2(2).*, vol. 2, no. 2, pp. 80–96, 2022.

[19] M. Alshurideh, S. A. Salloum, B. Al Kurdi, A. A. Monem, and K. Shaalan, "Understanding the quality determinants that influence the intention to use the mobile learning platforms: A practical study," *Int. J. Interact. Mob. Technol.*, vol. 13, no. 11, pp. 157–183, 2019, doi: 10.3991/ijim.v13i11.10300.

[20] H. Alzoubi, B. Kurdi, M. Alshurideh, I. Akour, E. Tariq, and A. AlHamad, "The effect of social media influencers' characteristics on consumer intention and attitude toward Keto products purchase intention," *Int. J. Data Netw. Sci.*, vol. 6, no. 4, pp. 1135–1146, 2022.

[21] M. Alshurideh, B. Al Kurdi, A. Abu Hussien, and H. Alshaar, "Determining the main factors affecting consumers' acceptance of ethical advertising: A review of the Jordanian market," *J. Mark. Commun.*, vol. 23, no. 5, pp. 513–532, Mar. 2017, doi: 10.1080/13527266.2017.1322126.

[22] H. M. Alzoubi *et al.*, "Securing Smart Cities Using Blockchain Technology," in *2022 1st International Conference on AI in Cybersecurity (ICAIC*, 2022, pp. 1–4. doi: 10.1109/icaic53980.2022.9896971.

[23] Nasim, S. F., M. R. Ali, and U. Kulsoom, "Artificial Intelligence Incidents & Ethics A Narrative Review. International Journal of Technology, Innovation and Management," *Int. J. Technol. Innov. Manag.*, vol. 2, no. 2, pp. 52–64, 2022.

[24] T. M. Ghazal *et al.*, "Software defect prediction using ensemble learning: A systematic literature review," *IEEE Access*, vol. 9, pp. 98754–98771, Jul. 2021, doi: 10.1109/ACCESS.2021.3095559.

[25] H. Alzoubi, M. Alshurideh, B. Al Kurdi, I. Akour, and R. Aziz, "Does BLE technology contribute towards improving marketing strategies, customers' satisfaction and loyalty? The role of open innovation," *Int. J. Data Netw. Sci.*, vol. 6, no. 2, pp. 449–460, 2022, doi: 10.5267/j.ijdns.2021.12.009.

[26] T. Eli and Lalla Aisha Sidi Hamou, "Investigating the Factors That Influence Students` Choice of English Studies As a Major: the Case of University of Nouakchott Al Aasriya, Mauritania," *Int. J. Technol. Innov. Manag.*, vol. 2, no. 1, p. 1, 2022, doi: 10.54489/ijtim.v2i1.62.

[27] M. Alshurideh, B. A. Kurdi, S. A. Salloum, Z. M. Obeidat, and R. M. Al-dweeri, "An empirical investigation into examination of factors influencing university students' behavior towards elearning acceptance using SEM approach," *Int. J. Interact. Mob. Technol.*, vol. 14, no. 2, 2020, doi: 10.3991/ijim.v14i02.11115.

[28] S. Federico Del Giorgio, "IMPACTS OF CYBER SECURITY AND SUPPLY CHAIN RISK ON DIGITAL OPERATIONS: EVIDENCE FROM THE UAE PHARMACEUTICAL INDUSTRY Federico Del Giorgio Solfa," *Int. J. Technol. Innov. Manag. (IJTIM), 2(2).*, vol. 2, no. 2, pp. 18–32, 2022.

[29] M. El Khatib, M. Hammerschmidt, and M. Al Junaibi, "Leveraging innovation input on enhancing smart service quality. Cases from Abu Dhabi Emirate," *Int. J. Manag. Cases*, vol. 23, no. 2, pp. 46–62, 2021, [Online]. Available: http://www.redi-bw.de/db/ebsco.php/search.ebscohost.com/login.aspx%3Fdirect%3Dtrue%26db%3Dbuh%26AN%3D151548527%26site%3Dehost-live

[30] H. M. Alzoubi *et al.*, "Digital Transformation and SMART-The Analytics factor," in *2022 International Conference on Business Analytics for Technology and Security, ICBATS 2022*, 2022, pp. 1–11. doi: 10.1109/ICBATS54253.2022.9759084.

[31] M. A. Khan, "Challenges Facing the Application of IoT in Medicine and Healthcare," *Int. J. Comput. Inf. Manuf.*, vol. 1, no. 1, pp. 39–55, 2021, doi: 10.54489/ijcim.v1i1.32.

[32] G. Ahmed, C. T. Amponsah, and S. S. Deasi, "Exploring the Dynamics of Women Entrepreneurship : A Case Study of UAE," *Int. J. Bus. Appl. Sci.*, vol. 7, no. 3, pp. 13–24, 2018.

[33] T. M. Ghazal, H. M. Alzoubi, and M. Alshurideh, "Integrating BLE Beacon Technology with Intelligent Information Systems IIS for Operations' Performance: A Managerial Perspective," 2021, pp. 527–538. doi: 10.1007/978-3-030-76346-6_48.

[34] H. Alzoubi *et al.*, "The effect of electronic human resources management on organizational health of telecommunications companies in Jordan," *Int. J. Data Netw. Sci.*, vol. 6, no. 2, pp. 429–438, 2022, doi: 10.5267/j.ijdns.2021.12.011.

[35] Saad Masood Butt, "Management and Treatment of Type 2 Diabetes," *Int. J. Comput. Inf. Manuf.*, vol. 2, no. 1, p. 1, 2022, doi: 10.54489/ijcim.v2i1.71.

[36] M. Alshurideh, B. Al Kurdi, and T. Al afaishata, "Employee retention and organizational performance: Evidence from banking industry," *Manag. Sci. Lett.*, vol. 10, no. 16, pp. 3981–3990, 2020.

[37] M. M. El Khatib and G. Ahmed, "Robotic pharmacies potential and limitations of artificial intelligence: A case study," *Int. J. Bus. Innov. Res.*, vol. 23, no. 3, pp. 298–312, 2020, doi: 10.1504/IJBIR.2020.110972.

[38] M. M. El El Khatib and M. J. C. Opulencia, "The Effects of Cloud Computing (IaaS) on E- Libraries in United Arab Emirates," *Procedia Econ. Financ.*, vol. 23, pp. 1354–1357, 2015, doi: 10.1016/s2212-5671(15)00521-3.

[39] H. Alzoubi and A. Joghee, S., & Dubey, "Decisions Effectiveness of FDI Investment Biases at Real Estate Industry: Empirical Evidence from Dubai Smart City Projects," *Int. J. Sci. Technol. Res.*, vol. 9, no. 3, pp. 1245–1258, 2020.

[40] H. M. Alzoubi, J. R. Hanaysha, M. E. Al-Shaikh, and S. Joghee, "Impact of Innovation Capabilities on Business Sustainability in Small and Medium Enterprises," *FIIB Bus. Rev.*, vol. 11, no. 1, pp. 67–78, 2022, doi: 10.1177/23197145211042232.

[41] N. Al Amiri, R. A. Rahim, and ..., "The organizational resources and knowledge management capability: A systematic review," *Bus. Econ. ...*, vol. 15, no. 5, pp. 636–647, 2019, [Online]. Available: https://www.researchgate.net/profile/Nabeel-Al-Amiri/publication/341824121_The_Organizational_Resources_and_Knowledge_Management_Capability_A_Systematic_Review/links/60840ac9907dcf667bbeae96/The-Organizational-Resources-and-Knowledge-

Management-Capability

[42] Edward Probir Mondol, "the Role of Vr Games To Minimize the Obesity of Video Gamers," *Int. J. Comput. Inf. Manuf.*, vol. 2, no. 1, p. 1, 2022, doi: 10.54489/ijcim.v2i1.70.

[43] H. M. Alzoubi *et al.*, "Cyber Security Threats on Digital Banking," in *2022 1st International Conference on AI in Cybersecurity (ICAIC*, 2022, pp. 1–4. doi: 10.1109/icaic53980.2022.9896966.

[44] M. Alshurideh, B. Kurdi, and A. Alnaser, "The impact of employee satisfaction on customer satisfaction: Theoretical and empirical underpinning," *Manag. Sci. Lett.*, vol. 10, no. 15, pp. 3561–3570, 2020.

[45] H. M. Alzoubi *et al.*, "AI-Based Prediction of Capital Structure: Performance Comparison of ANN SVM and LR Models," *Comput. Intell. Neurosci.*, vol. 2022, pp. 1–13, 2022, doi: 10.1155/2022/8334927.

[46] Maged Farouk, "Studying Human Robot Interaction and Its Characteristics," *Int. J. Comput. Inf. Manuf.*, vol. 2, no. 1, p. 1, 2022, doi: 10.54489/ijcim.v2i1.73.

[47] A. Akhtar, S. Akhtar, B. Bakhtawar, A. A. Kashif, N. Aziz, and M. S. Javeid, "COVID-19 Detection from CBC using Machine Learning Techniques," *Int. J. Technol. Innov. Manag.*, vol. 1, no. 2, pp. 65–78, 2021, doi: 10.54489/ijtim.v1i2.22.

[48] A. A. Kashif, B. Bakhtawar, A. Akhtar, S. Akhtar, N. Aziz, and M. S. Javeid, "Treatment Response Prediction in Hepatitis C Patients using Machine Learning Techniques," *Int. J. Technol. Innov. Manag.*, vol. 1, no. 2, pp. 79–89, 2021, doi: 10.54489/ijtim.v1i2.24.

[49] H. M. Alzoubi *et al.*, "Empirical linkages between ICT, tourism, and trade towards sustainable environment: evidence from BRICS countries," *Econ. Res. Istraz.*, vol. 37, no. 1, pp. 850–862, 2022, doi: 10.1080/1331677X.2022.2127417.

[50] D. M. M. El Khatib, "Integrating Project Risk Management and Value Engineering in Tendering Processes," *Int. J. Eng. Res.*, vol. 4, no. 8, pp. 442–445, 2015, doi: 10.17950/ijer/v4s8/808.

[51] T. M. Ghazal, R. A. Said, and N. Taleb, *Internet of vehicles and autonomous systems with AI for Medical Things*. Soft Computing, 2021.

[52] H. M. Alzoubi, H. Elrehail, J. R. Hanaysha, A. Al-Gasaymeh, and R. Al-Adaileh, "The Role of Supply Chain Integration and Agile Practices in Improving Lead Time During the COVID-19 Crisis," *Int. J. Serv. Sci. Manag. Eng. Technol.*, vol. 13, no. 1, pp. 1–11, 2022, doi: 10.4018/IJSSMET.290348.

[53] Neyara Radwan, "the Internet'S Role in Undermining the Credibility of the Healthcare Industry," *Int. J. Comput. Inf. Manuf.*, vol. 2, no. 1, p. 1, 2022, doi: 10.54489/ijcim.v2i1.74.

[54] H. M. Alzoubi, A. U. Rehman, R. M. Saleem, Z. Shafi, M. Imran, and M. Pradhan, "Analysis of Income on the Basis of Occupation using Data Mining," in *2022 International Conference on Business Analytics for Technology and Security, ICBATS 2022*, 2022, pp. 1–4. doi: 10.1109/ICBATS54253.2022.9759040.

[55] M. T. Alshurideh and B. H. Al Kurdi, "Facebook Advertising as a Marketing Tool," *Int. J. Online Mark.*, vol. 11, no. 2, pp. 52–74, 2021, doi: 10.4018/ijom.2021040104.

[56] M. M. El Khatib, A. Al-Nakeeb, and G. Ahmed, "Integration of Cloud Computing with Artificial Intelligence and Its Impact on Telecom Sector—A Case Study," *iBusiness*, vol. 11, no. 01, pp. 1–10, 2019, doi: 10.4236/ib.2019.111001.

[57] M. El Khatib, S. Al Blooshi, and A. Al-habeeb, "The Challenge and Potential Solutions of Reading Voluminous Electronic Medical Records (EMR): A Case Study from UAE," *IOSR J. Bus. Manag. (IOSR-JBM*, vol. 18, no. 12, pp. 38–46, 2016.

[58] M. Alshurideh, R. M. d.Taisir Masa'deh, and B. Alkurdi, "The effect of customer satisfaction upon customer retention in the Jordanian mobile market: An empirical investigation," *Eur. J. Econ. Financ. Adm. Sci.*, vol. 47, no. 47, pp. 69–78, 2012.

[59] H. M. Alzoubi, M. In'airat, and G. Ahmed, "Investigating the impact of total quality management practices and Six Sigma processes to enhance the quality and reduce the cost of quality: the case of Dubai," *Int. J. Bus. Excell.*, vol. 27, no. 1, pp. 94–109, 2022, doi: 10.1504/IJBEX.2022.123036.

[60] M. M. El Khatib and G. Ahmed, "Management of artificial intelligence enabled smart wearable devices for early diagnosis and continuous monitoring of CVDS," *Int. J. Innov. Technol. Explor. Eng.*, vol. 9, no. 1, pp. 1211–1215, 2019, doi: 10.35940/ijitee.L3108.119119.

[61] Nada Ratkovic, "Improving Home Security Using Blockchain," *Int. J. Comput. Inf. Manuf.*, vol. 2, no. 1, p. 1, 2022, doi: 10.54489/ijcim.v2i1.72.

[62] G. Ahmed and N. Al Amiri, "An Analysis of Strategic Leadership Effectiveness of Prophet Muhammad (PBUH) Based on Dave Ulrich Leadership Code," *J. Islam. Stud. Cult.*, vol. 7, no. 1, pp. 11–27, 2019, doi: 10.15640/jisc.v7n1a2.

[63] H. M. Alzoubi and R. Yanamandra, "Empirical Investigation of Mediating Role of Six Sigma Approach in Rationalizing the COQ in Service Organizations," *Oper. Supply Chain Manag. An Int. J.*, vol. 15, no. 1, pp. 2579–9363, 2022.

[64] M. El Khatib, L. Nakand, S. Almarzooqi, and A. Almarzooqi, "E-Governance in Project Management: Impact and Risks of Implementation," *Am. J. Ind. Bus. Manag.*, vol. 10, no. 12, pp. 1785–1811, 2020, doi: 10.4236/ajibm.2020.1012111.

[65] T. Ghazal, M. Afifi, and D. Kaira, "Integration of collaboration systems in hospitality management as a comprehensive solution," *Int. J. Adv. Sci. Technol.*, vol. 29, no. 8s, pp. 3155–3173, 2020, [Online]. Available: http://sersc.org/journals/index.php/IJAST/article/view/16386

[66] H. M. Alzoubi, A. Ali, A. W. Septyanto, I. Chaudhary, H. A. Hamadi, and Z. F. Khan, "Applied Artificial Intelligence as Event Horizon Of Cyber Security," in *2022 International Conference on Business Analytics for Technology and Security (ICBATS*, 2022, pp. 1–7. doi: 10.1109/ICBATS54253.2022.9759076.

[67] G. Ahmed and Nabeel Al Amiri, "the Transformational Leadership of the Founding Leaders of the United Arab Emirates: Sheikh Zayed Bin Sultan Al Nahyan and Sheikh Rashid Bin Saeed Al Maktoum," *Int. J. Technol. Innov. Manag.*, vol. 2, no. 1, p. 1, 2022, doi: 10.54489/ijtim.v2i1.58.

[68] M. El Khatib, F. Beshwari, M. Beshwari, and A. Beshwari, "The impact of blockchain on project management," *ICIC Express Lett.*, vol. 15, no. 5, pp. 467–474, 2021, doi: 10.24507/icicel.15.05.467.

[69] J. C. T. Gaytan, A. M. Sakthivel, S. S. Desai, and G. Ahmed, "Impact of Internal and External Promotional Variables on Consumer Buying Behavior in Emerging Economy – An Empirical Study," *Skyline Bus. J.*, vol. 16, no. 1, pp. 45–54, 2020, doi: 10.37383/sbj160104.

[70] G. Ahmed and C. T. Amponsah, "Gender Differences in Entrepreneurial Attitude and Intentions: A Case of Dubai," *Proc. Ed.*, vol. 11, no. 4, pp. 315–334, 2018, [Online]. Available: https://www.researchgate.net/profile/Rudresh-Pandey-2/publication/349368995_Consumers'_purchase_decision_towards_Private_Label_Brands_An_Empirical_Investigation_for_Select_Indian_Retailers/links/602d103f299bf1cc26cfa009/Consumers-purchase-decision-towards

[71] H. Alzoubi, M. Shamout, R. Ben-Abdallah, M. Alshurideh, B. Al Kurdi, and S. Hamadneh, "A conceptual model for the adoption of autonomous robots in supply chain and logistics industry," *Uncertain Supply Chain Manag.*, vol. 10, no. 2, pp. 577–592, 2022, doi: 10.5267/j.uscm.2021.11.006.

[72] Asem Alzoubi, "Machine Learning for Intelligent Energy Consumption in Smart Homes," *Int. J. Comput. Inf. Manuf.*, vol. 2, no. 1, p. 1, 2022, doi: 10.54489/ijcim.v2i1.75.

[73] H. M. Alzoubi, K. L. Lee, P. N. Romzi, J. R. Hanaysha, and M. Alshurideh, "Investigating the impact of benefits and challenges of IOT adoption on supply chain performance and organizational performance: An empirical study in Malaysia," *Uncertain Supply Chain Manag.*, vol. 10, no. 2, pp. 537–550, 2022, doi: 10.5267/j.uscm.2021.11.009.

[74] M. Alshurideh, "Pharmaceutical Promotion Tools Effect on Physician's Adoption of Medicine Prescribing: Evidence from Jordan," *Mod. Appl. Sci.*, vol. 12, no. 11, 2018.

[75] H. M. Alzoubi, K. L. Lee, N. A. N. Azmi, J. R. Hanaysha, and M. T. Alshurideh, "The effect of digital supply chain on organizational performance: An empirical study in Malaysia manufacturing industry," *Uncertain Supply Chain Manag.*, vol. 10, no. 2, pp. 495–510, 2022, doi: 10.5267/j.uscm.2021.12.002.

[76] N. Alsharari, "the Implementation of Enterprise Resource Planning (Erp) in the United Arab Emirates: a Case of Musanada Corporation," *Int. J. Technol. Innov. Manag.*, vol. 2, no. 1, p. 1, 2022, doi: 10.54489/ijtim.v2i1.57.

[77] M. Alshurideh, S. A. Salloum, B. Al Kurdi, and M. Al-Emran, "Factors affecting the Social Networks Acceptance: An Empirical Study using PLS-SEM Approach," in *8th International Conference on Software and Computer Applications*, 2019, pp. 1–5.

[78] T. M. Ghazal *et al.*, "Performances of k-means clustering algorithm with different distance metrics," *Intell. Autom. Soft Comput.*, vol. 30, no. 2, pp. 735–742, Aug. 2021, doi: 10.32604/iasc.2021.019067.

[79] T. M. Ghazal, M. Suleman, T. R. Soomro, and M. Alshurideh, "Combating Against Potentially Harmful Mobile Apps," in *The International Conference on Artificial Intelligence and Computer Vision*, 2021, pp. 154–173. doi: 10.1007/978-3-030-76346-6_15.

[80] T. M. Ghazal, *Positioning of UAV base stations using 5G and beyond networks for IOMT applications*. Arabian Journal for Science and Engineering, 2021.

[81] N. Al Amiri, R. E. A. Rahim, and G. Ahmed, "Leadership styles and organizational knowledge management activities: A systematic review," *Gadjah Mada Int. J. Bus.*, vol. 22, no. 3, pp. 250–275, 2020, doi: 10.22146/gamaijb.49903.

[82] H. M. Alzoubi *et al.*, "Fuzzy assisted human resource management for supply chain management issues," *Ann. Oper. Res.*, vol. 2, no. 308, pp. 617–629, 2022, doi: 10.1007/s10479-021-04472-8.

[83] M. El Khatib, K. Alabdooli, A. AlKaabi, and S. Al Harmoodi, "Sustainable Project Management: Trends and Alignment," *Theor. Econ. Lett.*, vol. 10, no. 06, pp. 1276–1291, 2020, doi: 10.4236/tel.2020.106078.

[84] H. M. Alzoubi *et al.*, "Fusion-based supply chain collaboration using machine learning techniques," *Intell. Autom. Soft Comput.*, vol. 31, no. 3, pp. 1671–1687, 2022, doi: 10.32604/IASC.2022.019892.

[85] N. Alsharari, "Integrating Blockchain Technology with Internet of things to Efficiency," *Int. J. Technol. Innov. Manag.*, vol. 1, no. 2, pp. 01–13, 2021, doi: 10.54489/ijtim.v1i2.25.

[86] E. Khatib, Z. M., R. A., and A. Al-Nakeeb, "The effect of AI on project and risk management in health care industry projects in the United Arab Emirates (UAE)," *Int. J. Appl. Eng. Res.*, vol. 6, p. 1, 2021.

[87] H. M. Alzoubi and R. Aziz, "Does emotional intelligence contribute to quality of strategic decisions? The mediating role of open innovation," *J. Open Innov. Technol. Mark. Complex.*, vol. 7, no. 2, p. 130, 2021, doi: 10.3390/joitmc7020130.

[88] T. M. Ghazal, H. M. Alzoubi, R. M. Al Batayneh, N. Taleb, R. A. Said, and M. T. Alshurideh, "IT Governance Framework and Smart Services Integration for Future Development of Dubai Infrastructure Utilizing AI and Big Data, Its Reflection on the Citizens Standard of Living," 2021, pp. 235–247. doi: 10.1007/978-3-030-76346-6_22.

[89] T. M. Ghazal, M. K. Hasan, S. N. H. Abdullah, K. A. Abubakkar, and M. A. M. Afifi, "IoMT-enabled fusion-based model to predict posture for smart healthcare systems," *Comput. Mater. Contin.*, vol. 71, no. 2, pp. 2579–2597, 2022, doi: 10.32604/cmc.2022.019706.

[90] H. M. Alzoubi, J. Hanaysha, and M. Al-Shaikh, "Importance of Marketing Mix Elements in Determining Consumer Purchase Decision in the Retail Market," *Int. J. Serv. Sci. Manag. Eng. Technol.*, vol. 12, pp. 56–72, 2021, doi: 10.4018/IJSSMET.2021110104.

[91] M. M. El Khatib and G. Ahmed, "Improving Efficiency in IBM Asset Management Software System 'Maximo': A Case Study of Dubai Airports and Abu Dhabi National Energy Company," *Theor. Econ. Lett.*, vol. 08, no. 10, pp. 1816–1829, 2018, doi: 10.4236/tel.2018.810119.

[92] T. M. Ghazal *et al.*, "Hep-pred: Hepatitis C staging prediction using fine gaussian SVM," *Comput. Mater. Contin.*, vol. 69, no. 1, pp. 191–203, 2021, doi: 10.32604/cmc.2021.015436.

[93] H. M. Alzoubi *et al.*, "Modelling supply chain information collaboration empowered with machine learning technique," *Intell. Autom. Soft Comput.*, vol. 30, no. 1, pp. 243–257, 2021, doi: 10.32604/iasc.2021.018983.

[94] G. M. Qasaimeh and H. E. Jaradeh, "The Impact of Artificial Intelligence on the effective applying of Cyber Governance in Jordanian Banks," *Int. J. Technol. Innov. Manag.*, vol. 2, no. 1, 2022.

[95] A. Abudaqa, M. F. Hilmi, H. Almujaini, R. A. Alzahmi, and G. Ahmed, "Students' perception of e-Learning during the Covid Pandemic: a fresh evidence from United Arab Emirates (UAE)," *J. E-Learning Knowl. Soc.*, vol. 17, no. 3, pp. 110–118, 2021, doi: 10.20368/1971-8829/1135556.

[96] T. M. Ghazal *et al.*, "Multi-Dimensional Trust Quantification by Artificial Agents through Evidential Fuzzy Multi-Criteria Decision Making," *IEEE Access*, vol. 9, pp. 159399–159412, 2021, doi: 10.1109/ACCESS.2021.3131521.

[97] H. M. Alzoubi, M. Vij, A. Vij, and J. R. Hanaysha, "What leads guests to satisfaction and loyalty in UAE five-star hotels? AHP analysis to service quality dimensions," *Enlightening Tour.*, vol. 11, no. 1, pp. 102–135, 2021.

[98] M. El Khatib and A. Al Falasi, "Effects of Artificial Intelligence on Decision Making in Project Management," *Am. J. Ind. Bus. Manag.*, vol. 11, no. 03, pp. 251–260, 2021, doi: 10.4236/ajibm.2021.113016.

[99] M. El Khatib, A. Al Jaberi, and A. Al Mahri, "Benchmarking Projects' 'Lessons Learned' through Knowledge Management Systems: Case of an Oil Company," *iBusiness*, vol. 13, no. 01, pp. 1–17, 2021, doi: 10.4236/ib.2021.131001.

[100] John Kasem and Anwar Al-Gasaymeh, "a Cointegration Analysis for the Validity of Purchasing Power Parity: Evidence From Middle East Countries," *Int. J. Technol. Innov. Manag.*, vol. 2, no. 1, p. 1, 2022, doi: 10.54489/ijtim.v2i1.60.

[101] T. M. Ghazal *et al.*, "IOMT cloud-based intelligent prediction of breast cancer stages empowered with Deep Learning," *IEEE Access*, vol. 9, pp. 14649–46478, Oct. 2021.

[102] T. M. Ghazal *et al.*, "Energy-efficiency model for residential buildings using supervised machine learning algorithm," *Intell. Autom. Soft Comput.*, vol. 30, no. 3, pp. 881–888, 2021, doi: 10.32604/iasc.2021.017920.

[103] T. M. Ghazal, M. A. M. Afifi, D. Kalra, and B. Mago, "Information Technology Ethics and Professional Responsibilities," *Int. J. Adv. Sci. Technol.*, vol. 29, no. 4, pp. 11336–11343, 2020, [Online]. Available: https://www.researchgate.net/publication/352159596

[104] M. El Khatib, M. Almteiri, and S. A. Al Qasemi, "The Correlation between Emotional Intelligence and Project Management Success," *iBusiness*, vol. 13, no. 01, pp. 18–29, 2021, doi: 10.4236/ib.2021.131002.

[105] H. Alzoubi and A. ALnuaimi, M., Dana Ajelat & Alzoubi, "Toward Intelligent Organizations: An Empirical investigation of Learning Orientation's role in Technical Innovation.," *Int. J. Innov. Learn.*, vol. 29, no. 2, pp. 207–221, 2020.

[106] T. Eli, "Students` Perspectives on the Use of Innovative and Interactive Teaching Methods at the University of Nouakchott Al Aasriya, Mauritania: English Department as a Case Study," *Int. J. Technol. Innov. Manag.*, vol. 1, no. 2, pp. 90–104, 2021, doi: 10.54489/ijtim.v1i2.21.

[107] Vorobeva Victoria, "Impact of Process Visibility and Work Stress To Improve Service Quality: Empirical Evidence From Dubai Retail Industry," *Int. J. Technol. Innov. Manag.*, vol. 2, no. 1, p. 1, 2022, doi: 10.54489/ijtim.v2i1.59.

[108] H. M. Alzoubi, G. Ahmed, A. Al-Gasaymeh, and B. Al Kurdi, "Empirical study on sustainable supply chain strategies and its impact on competitive priorities: The mediating role of supply chain collaboration," *Manag. Sci. Lett.*, vol. 10, no. 3, pp. 703–708, 2020.

[109] M. M.ElKhatib, "Knowledge Management System: Critical Success Factors and Weight Scoring Model of the Technical Dimensions," *Int. J. Appl. Inf. Syst.*, vol. 7, no. 9, pp. 6–12, 2014, doi: 10.5120/ijais14-451213.

[110] T. Ghazal, T. R. Soomro, and K. Shaalan, "Integration of Project Management Maturity (PMM) Based on Capability Maturity Model Integration (CMMI)," *Eur. J. Sci. Res.*, vol. 99, p. 418{\textendash}428, 2013.

[111] S. Rana, S. Verma, M. M. Haque, and G. Ahmed, "Conceptualizing international positioning strategies for

Indian higher education institutions," *Rev. Int. Bus. Strateg.*, vol. 32, no. 4, pp. 503–519, 2022, doi: 10.1108/RIBS-07-2021-0105.

[112] T. Mehmood, "Does Information Technology Competencies and Fleet Management Practices lead to Effective Service Delivery?," *Empir. Evid. from E-Commerce Ind.*, vol. 1, no. 2, pp. 14–41, 2021.

[113] T. M. Ghazal *et al.*, "Modeling habit patterns using conditional reflexes in agency," *Intell. Autom. Soft Comput.*, vol. 30, no. 2, pp. 539–552, Aug. 2021, doi: 10.32604/iasc.2021.018888.

[114] A. M. Sakkthivel, G. Ahmed, C. T. Amponsah, and G. N. Muuka, "The influence of price and brand on the purchasing intensions of Arab women: an empirical study," *Int. J. Bus. Innov. Res.*, vol. 28, no. 2, pp. 141–161, 2022, doi: 10.1504/IJBIR.2022.123260.

[115] H. Alzoubi and G. Ahmed, "Do TQM practices improve organisational success? A case study of electronics industry in the UAE," *Int. J. Econ. Bus. Res.*, vol. 17, no. 4, pp. 459–472, 2019, doi: 10.1504/IJEBR.2019.099975.

[116] D. Miller, "The Best Practice of Teach Computer Science Students to Use Paper Prototyping. International Journal of Technology," *Innov. Manag. (IJTIM),* vol. 1, no. 2, pp. 42–63, 2021.

[117] A. J. Obaid, "Assessment of Smart Home Assistants as an IoT," *Int. J. Comput. Inf. Manuf.*, vol. 1, no. 1, pp. 18–38, 2021, doi: 10.54489/ijcim.v1i1.34.

[118] H. Alzoubi, M. Alshurideh, B. Al Kurdi, and M. Inairat, "Do perceived service value, quality, price fairness and service recovery shape customer satisfaction and delight? A practical study in the service telecommunication context," *Uncertain Supply Chain Manag.*, vol. 8, no. 3, pp. 579–588, 2020, doi: 10.5267/j.uscm.2020.2.005.

[119] Khatib, H. Alzoubi, and M. El, "BIM as a tool to optimize and manage project risk management," *Int. J. Mech. Eng.*, vol. 7, no. 1, pp. 6307–6323, 2022.

[120] H. M. Alzoubi, N. N. Alnazer, and M. A. Alnuaimi, "Analysing the appropriate cognitive styles and its effect on strategic innovation in Jordanian universities," *Int. J. Bus. Excell.*, vol. 13, no. 1, pp. 127–140, 2017, doi: 10.1504/IJBEX.2017.085799.

[121] H. M. Alzoubi, T. Mehmood, M. Alshurideh, A. Al-Gasaymeh, and G. Ahmed, "Schumpeterian entrepreneurship theory: Evolution and relevance," *Acad. Entrep. J.*, vol. 25, no. 4, pp. 1–10, 2019.

[122] M. Farouk, "The Universal Artificial Intelligence Efforts to Face Coronavirus COVID-19," *Int. J. Comput. Inf. Manuf.*, vol. 1, no. 1, pp. 77–93, 2021, doi: 10.54489/ijcim.v1i1.47.

[123] A. Abudaqa, R. A. Alzahmi, H. Almujaini, and G. Ahmed, "Does innovation moderate the relationship between digital facilitators, digital transformation strategies and overall performance of SMEs of UAE?," *Int. J. Entrep. Ventur.*, vol. 14, no. 3, pp. 330–350, 2022, doi: 10.1504/ijev.2022.124964.

[124] H. M. Alzoubi, S. Hamadneh, O. Pedersen, M. Alshurideh, and B. A. Kurdi, "An Investigation Of The Role Of Supply Chain Visibility Into The Scottish Blood Supply Chain," *J. Leg. Ethical Regul. Issues*, vol. 24, pp. 1–12, 2021.

[125] M. El Khatib, A. AlMaeeni, and W. Alkamali, "The Relation between Effective Digital Program Governance and Program Success," *Am. J. Ind. Bus. Manag.*, vol. 12, no. 09, pp. 1402–1418, 2022, doi: 10.4236/ajibm.2022.129078.

[126] H. Alzoubi *et al.*, "Predicting the intention to use google glass: A comparative approach using machine learning models and PLS-SEM," *Int. J. Data Netw. Sci.*, vol. 5, no. 3, pp. 311–320, 2021, doi: 10.5267/j.ijdns.2021.6.002.

[127] K. Elkhatib, M., Al Hosani, A., Al Hosani, I., & Albuflasa, "Agile Project Management and Project Risks Improvements: Pros and Cons.," *Mod. Econ.*, vol. 13, no. 9, pp. 1157–1176, 2022.

[128] O. Gulseven and G. Ahmed, "The State of Life on Land (SDG 15) in the United Arab Emirates," *Int. J. Soc. Ecol. Sustain. Dev.*, vol. 13, no. 1, pp. 1–15, 2022, doi: 10.4018/ijsesd.306264.

[129] N. Guergov, S., & Radwan, "Blockchain Convergence: Analysis of Issues Affecting IoT, AI and

Blockchain," *Inf. Manuf.*, vol. 1, no. 1, pp. 1–17, 2021.

[130] T. M. Ghazal *et al.*, "Edge AI-Based Automated Detection and Classification of Road Anomalies in VANET Using Deep Learning," *Comput. Intell. Neurosci.*, vol. 2021, pp. 1–19, Sep. 2021, doi: 10.1155/2021/6262194.

[131] A. Alzoubi, "Renewable Green hydrogen energy impact on sustainability performance," *Int. J. Comput. Inf. Manuf.*, vol. 1, no. 1, pp. 94–105, 2021, doi: 10.54489/ijcim.v1i1.46.

[132] M. M. El Khatib, G. Ahmed, and A. Al-Nakeeb, "Enterprise Cloud Computing Project for Connecting Higher Education Institutions: A Case Study of the UAE," *Mod. Econ.*, vol. 10, no. 01, pp. 137–155, 2019, doi: 10.4236/me.2019.101010.

[133] M. El Khatib, A. Kherbash, A. Al Qassimi, and K. Al Mheiri, "How Can Collaborative Work and Collaborative Systems Drive Operational Excellence in Project Management?," *J. Serv. Sci. Manag.*, vol. 15, no. 03, pp. 297–307, 2022, doi: 10.4236/jssm.2022.153017.

[134] H. Alzoubi, M. Alshurideh, A. Gasaymeh, G. Ahmed, and B. Al Kurd, "Loyalty program effectiveness: Theoretical reviews and practical proofs," *Uncertain Supply Chain Manag.*, vol. 8, no. 3, pp. 599–612, 2020, doi: 10.5267/j.uscm.2020.2.003.

[135] M. El El Khatib, A. Alhosani, I. Alhosani, O. Al Matrooshi, and M. Salami, "Simulation in Project and Program Management: Utilization, Challenges and Opportunities," *Am. J. Ind. Bus. Manag.*, vol. 12, no. 04, pp. 731–749, 2022, doi: 10.4236/ajibm.2022.124037.

[136] H. M. Alzoubi *et al.*, "IoT for Smart Cities: Machine Learning Approaches in Smart Healthcare-A Review," *Futur. Internet*, vol. 13, no. 8, p. 218, 2021, doi: 10.3390/fi13080218.

[137] M. El Khatib, A. Al Hammadi, A. Al Hamar, K. Oraby, and M. Abdulaziz, "How Global Supply Chain Management Is Disrupting Local Supply Chain Management Case of Oil and Gas Industry in UAE," *Am. J. Ind. Bus. Manag.*, vol. 12, no. 05, pp. 1067–1078, 2022, doi: 10.4236/ajibm.2022.125056.

[138] H. M. Alzoubi and R. Yanamandra, "Investigating the mediating role of Information Sharing Strategy on Agile Supply Chain in Supply Chain Performance," *Uncertain Supply Chain Manag.*, vol. 8, no. 2, pp. 273–284, 2020.

[139] N. Radwan and M. Farouk, "The Growth of Internet of Things (IoT) In The Management of Healthcare Issues and Healthcare Policy Development. International Journal of Technology," *Innov. Manag. (IJTIM)*, vol. 1, no. 1, pp. 69–84, 2021.