IMPACT OF INFORMATION TECHNOLOGIES CAPABILITIES AND INFORMATION SYSTEM CAPABILITIES ON BUSINESS PROCESS MANAGEMENT

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ABSTRACT

One of the top concerns of managers in the current business environment is to be responsible for the best organizational performance. In order to take the required actions to attain the level of performance that would maintain in the market and help to achieve their goals, they continuously examine the performance and compare it to the competitors. The business process management system offers a platform for carrying out organizational procedures, the workflow based on processes of the organization, in a fully automated way with help of effective information sharing to the customers using IT capabilities. This research can put the efforts to explore the impact of information sharing and IT capabilities to enhance business process management.

Keywords: *IT Capabilities, Information Sharing Capabilities, Business Process Management (BPM).*

1. INTRODUCTION

Business process management is a strategic method in which a corporation takes a step back and have a look fully or independently at most of these procedures [1], [2]. To establish a much more productive and successful organization, it evaluates the current situation and explores areas of change [3]. The science and art for supervising when job is done inside an enterprise to achieve optimal performance and also to seize opportunities for change is Business Process Management [4]–[6]. In the sense, based on the organization's priorities, the word 'improvement' can have various meanings. Common examples of targets for progress include reduction in costs, lowering of implementation duration and reduction of margins of error. Reforms for change will be one-off, and they also demonstrate a more ongoing existence [7]–[12]. Notably, BPM should not be about enhancing a way individual operations are carried out. Instead, it's really about controlling whole systems of events and activities even choices that eventually enhance organizational performance and its clients [13].

Throughout the study, a fundamental assumption is that now the success of the organization can be clarified for how efficiently the company uses knowledge of information technologies to develop its competitive advantage [14]–[17]. Since process innovations are experience and knowledge based [18], we could be improved by the successful utilization of information technologies capabilities [19].

In a way to provide information for practice, an information system is an integrated series of elements for data collection, delivery, storage, and processing [20]–[27]. This is necessary to emphasize that this data is needed both for management and operation in corporate organizations as well as other organizations [28], [29]. Almost all of the information systems in modern organizations are designed on computer and telecommunication information technology [30]–[32]. These are information systems generated by computer.

1.1.Problem Statement

Information technology promotes business innovation, which results in more creative apps, faster processing, better data storage, and greater information dissemination [33], [34]. Whereas, the significance of information sharing capabilities has also discussed in various studies with lack of

some factors. In order to cover that aspects, this research is aimed that is used to increase more knowledge and information in the field of business management.

2. LITERATURE REVIEW

Business Process Management has been inspired by business administration and computer programming theories and applications [35], [36]. Business Process Management was rooted in process-oriented movements and has been known as a theory of management by late 1990 [37]–[39]. So many management concepts and procedures have been correlated with studies examining business process management [40]–[45]. In a technological and organizational system, a business program is a series of tasks which are carried out in collaboration [46], [47].

By the operations and implementation restrictions among them, the Business Process Management framework was specifically represented by the business method [12], [48]–[50]. When Business Process Management was established, individuals could evaluate, enhance and enforce [51], [52] Business Process Management [53][54]–[56]. Typically, highly educated people, company rules, and established protocols have conducted the business process manually as normal [44], [57], [58]. By implementing information technology such as the Business Process Management System to coordinate activities associated with the business, the organization now has more extra benefits [59]–[61]. There are four primary steps in business process management.

It is the first step in business process management and because of its efficacy and improvement, each business model is analyzed [62]–[64]. The aim of this step is just to record information and recognize development opportunities. Analysis means going with a fine-toothed comb through each mechanism seeing what's performing and which are not [65]–[67].

In the second step business process management practitioners continue to generate ideas about how to better address the issue or refine the method as possibilities for change were found [68]–[70]. This will be the opportunity for high expectations to be established and aims set very high [71], [72]. Throughout this phase, procedures must be designed as just an ideal image of oneself.

Next in the third step, incorporate the models or model how well the planned changes will affect the mechanism as well as the method as a whole [73]–[78]. Based on the method being developed,

modelling methods will differ, but development and testing or running testing process are often a good way to see whether the proposed changes will affect procedures [79]–[82].

It is the last step, when the modelling has demonstrated that the improvements proposed have a beneficial effect on the process as well as the organization as a whole, it is time to introduce the improvements and bring it all things back together [83]–[88]. It can be a daunting task to incorporate new methods or changed procedures [89], however if the phases related to all of this were productive, so they understand the work was worth their ultimate result [90]–[92]. Information technologies capabilities to enhance the capabilities of the business and also a fundamental assumption is that now the success of the organization can be clarified [93]–[95] for how efficiently the company uses knowledge of information technologies to develop its competitive advantage [96][97]. Since process innovations are experience and knowledge based, we could be improved by the successful utilization of information technologies capabilities [98]–[100].

The information system is an integrated series of elements for data collection, delivery and storage and processing [101]–[104]. This is necessary to emphasize that this data is needed both for management and operation in corporate organizations as well as other organizations [105]–[109]. Almost all of the information systems in modern organizations are designed on computer and telecommunication information technology [110], [111]. These are information systems generated by computer.

2.1. Critical success factors in business process management

Critical Success Factors are the areas of the organization or initiative which are integral to business success [112]–[114], usually considered as Main Results Areas. Inside the company, recognizing and transmitting critical success factors means making sure that the corporation or initiative is centered on its targets and strategies [115]–[117]. Many critical success Factors have identified in different studies and researches so some of them are discussed below:

2.1.1. Performance Measurement

The measure of performance refers to measurements of the performance of processes, projects and people [118], [119]. The efficiency of the processes should be correctly assessed to correlate them

with the objectives and targets and to select the appropriate change mechanism in addition to assessing the targets and objectives [120]–[123]. To track progress and ensure that the targets are accomplished, business process management projects need certain benchmarks and standards.

2.1.2. Information Technology

The Information technology is an organized set of consensus decisions on policies & principles, services and common solutions [124], standards and guidelines as well as specific vendor products used by Information technology providers both inside and outside the Information Technology Branch[125].

2.1.3. Information System

The proper system for the information is very important and also skill people are required for it to run the information system in a meaningful way and also fruitful for the corporation productivity [126]–[130]. The information system is a critical factor because if this system work correctly it will enhance the productivity of the corporation and also attract the customers from outside and also inside the corporation can convey the message effectively [131].

2.1.4. Top Management Support

The support of the top level management can have a most important critical factor to enhance the business process management and it can motivate the staff [132] and they can work with full dedication and it can enhance the productivity and development of the corporation [133].

2.1.5. Stakeholder Involvement and Employee Ownership

In the corporation commitments stakeholder engagement is an important factor. The employees can make choices totally independently which can lead to excelling with lesser growing number and make the employees belonging to the company or corporation [134], [135].

2.1.6. Strategic Alignment

The Current leadership participates actively working for the continuous quality improvement and the aims of business processes are extracted from and related to strategy of the company to make the corporation develop [136]–[138] and bring benefits for the corporation and also enhancement of the business process is often the strategy of top leadership discussions and work on the decision making to boost up the corporation productivity [139].

3.1 General Research Model

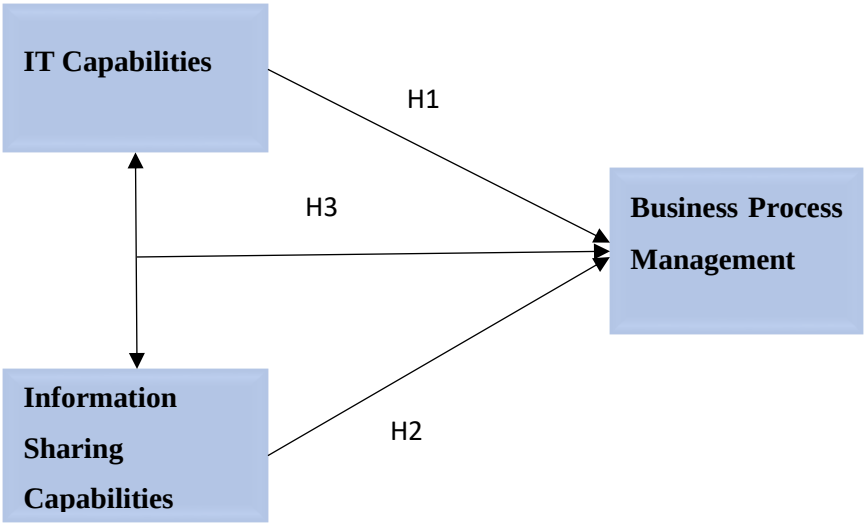

Figure 1: Conceptual Research Model

3. DISCUSSION

Due to aggressive global competition, quick technology advancements, and an increase in the variety of products available today, companies compete with one another in dynamic, complex, and unexpected contexts in an effort to boost organizational performance. In such a scenario, numerous top businesses are utilizing information technology to turn a profit and stay ahead of the competition. In this research the impact of information technology capability and information sharing capability alignment on company performance was discussed in light of the significance of company performance. According to earlier study described in the research background the integration of IT capabilities can improve the business process by incorporating technology based function in the business operations that enhances the productivity, improves cost efficiency and increase workforce interests that enhances business efficiency. On the other side, the impact of IS capabilities has investigated in previous studies that presents the better information flow in the organizations (internal or external) can boost the business activities that directly effects the organizational competitiveness.

4. CONCLUSION

A need for corporate success is the alignment of IT and business requirements. This system, which involves negotiation, ongoing communication, and specification, is one that can help with creating such alignment. The implementation of effective information sharing (IS) strategies and IT capabilities can govern the business operations in the righteous way whereas, the IT capabilities gives everyone involved in the execution of complicated projects a foundation for ongoing communication. As project managers are aware, information sharing is also essential to the successive business projects. Therefore, IT capabilities and IS capabilities increase the effectiveness of businesses.

REFERENCES

[1] B. Al Kurdi, H. M. Alzoubi, I. Akour, and M. T. 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, doi: 10.5267/j.uscm.2022.9.001.

[2] T. M. Ghazal, S. Abbas, M. Ahmad, and S. Aftab, "An IoMT based Ensemble Classification Framework to Predict Treatment Response in Hepatitis C Patients," in *2022 International Conference on Business Analytics for Technology and Security, ICBATS 2022*, 2022, pp. 1–4, doi: 10.1109/ICBATS54253.2022.9759059.

[3] B. Al Kurdi, M. Alshurideh, 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, pp. 19–41, 2020, doi: 10.3991/ijim.v14i02.11115.

[4] 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.

[5] 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.

[6] 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.

[7] B. Al Kurdi, M. Alshurideh, I. Akour, H. M. Alzoubi, 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.

[8] 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, Dec. 2021, doi: 10.54489/IJTIM.V1I2.21.

[9] B. Kurdi, M. Alshurideh, 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.

[10] 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.

[11] M. A. M. Afifi, D. Kalra, T. M. Ghazal, 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.

[12] 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.

[13] B. Al Kurdi, M. Alshurideh, I. Akour, E. Tariq, A. Alhamad, and H. M. Alzoubi, "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, doi: 10.5267/j.ijdns.2022.7.006.

[14] T. Mehmood, "Does Information Technology Competencies and Fleet Management Practices lead to Effective Service Delivery? Empirical Evidence from E- Commerce Industry," *Int. J. Technol. Innov. Manag.*, vol. 1, no. 2, pp. 14–41, Dec. 2021, doi: 10.54489/IJTIM.V1I2.26.

[15] M. Alshurideh, R. M. d. T. 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.

[16] 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.

[17] R. M. Al Batayneh, N. Taleb, R. A. Said, M. T. Alshurideh, T. M. Ghazal, and H. M. Alzoubi, "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," in *Its Reflection on the Citizens Standard of Living*, 2021, pp. 235–247, doi: 10.1007/978-3-030-76346-6_22.

[18] 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.

[19] H. M. Alzoubi, G. Ahmed, and M. Alshurideh, "An empirical investigation into the impact of product quality dimensions on improving the order-winners and customer satisfaction," *Int. J. Product. Qual. Manag.*, vol. 36, no. 2, pp. 169–186, 2022, doi: 10.1504/IJPQM.2021.10037887.

[20] J. R. Hanaysha, M. E. Al-Shaikh, S. Joghee, and H. M. Alzoubi, "Impact of Innovation Capabilities on Business Sustainability in Small and Medium Enterprises," *FIIB Bus. Rev.*, vol. 12, no. 1, pp. 55–68, 2021.

[21] 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.

[22] 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.

[23] 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.

[24] M. Afifi, D. Kaira, and T. Ghazal, "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.

[25] 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.

[26] J. Tellez *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.

[27] 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.

[28] N. Guergov, S., & Radwan, "Blockchain Convergence: Analysis of Issues Affecting IoT, AI and Blockchain," *Inf. Manuf.*, vol. 1, no. 1, pp. 1–17, 2021.

[29] S. Zeeshan Zafar *et al.*, "Empirical linkages between ICT, tourism, and trade towards sustainable environment: evidence from BRICS countries," 2022, doi: 10.1080/1331677X.2022.2127417.

[30] 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.

[31] Y. Ramakrishna and H. M. Alzoubi, "Empirical Investigation of Mediating Role of Six

Sigma Approach in Rationalizing the COQ in Service Organizations," *Oper. Supply Chain Manag.*, vol. 15, no. 1, pp. 122–135, 2022, doi: 10.31387/OSCM0480335.

[32] 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.

[33] 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.

[34] H. M. Alzoubi, M. Alshurideh, and T. M. Ghazal, "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.

[35] 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.

[36] M. Alzoubi, H., Alshurideh, M., Alkurdi, B. and 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. 439–632, 2020.

[37] 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, 2022, doi: 10.54489/ijtim.v2i1.59.

[38] N. Ali *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.

[39] M. Alshurideh *et al.*, "Fuzzy assisted human resource management for supply chain management issues," *Ann. Oper. Res.*, pp. 1–19, Jan. 2022, doi: 10.1007/s10479-021-04472-8.

[40] 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.

[41] 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 *ACM International Conference Proceeding Series*, 2019, vol. Part F1479, pp. 414–418, doi: 10.1145/3316615.3316720.

[42] 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.

[43] R. Naqvi, T. R. Soomro, H. M. Alzoubi, T. M. Ghazal, 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, doi: 10.1007/978-3-030-76346-6_73.

[44] 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.

[45] 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.

[46] A. Joghee, S., Alzoubi, H. & 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.

[47] N. Alsharari, "Integrating Blockchain Technology with Internet of things to Efficiency," *Int. J. Technol. Innov. Manag.*, vol. 1, no. 2, pp. 01–13, Dec. 2021, doi: 10.54489/IJTIM.V1I2.25.

[48] N. N. Alnazer, M. A. Alnuaimi, and H. M. Alzoubi, "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.

[49] 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.*, vol. 4, no. 2, pp. 1–15, 2020, doi: 10.1080/10494820.2020.1826982.

[50] D. Miller, "The Best Practice of Teach Computer Science Students to Use Paper Prototyping," *Int. J. Technol. Innov. Manag.*, vol. 1, no. 2, pp. 42–63, Dec. 2021, doi: 10.54489/IJTIM.V1I2.17.

[51] 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.

[52] M. Shamout, R. Ben-Abdallah, M. Alshurideh, H. Alzoubi, 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.

[53] M. Suleman, T. R. Soomro, T. M. Ghazal, and M. Alshurideh, "Combating Against Potentially Harmful Mobile Apps," in *The International Conference on Artificial Intelligence and Computer Vision*, 2021, pp. 154–173.

[54] 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.

[55] M. T. Alshurideh, B. Al Kurdi, H. M. Alzoubi, 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, Sep. 2022, doi: 10.5267/J.USCM.2022.8.009.

[56] H. M. Alzoubi, M. T. Alshurideh, B. Al Kurdi, K. M. K. Alhyasat, and T. M. Ghazal, "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.

[57] 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.

[58] K. L. Lee, N. A. N. Azmi, J. R. Hanaysha, H. M. Alzoubi, 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.

[59] 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, doi: 10.5267/j.msl.2019.9.008.

[60] A. Alzoubi, "MACHINE LEARNING FOR INTELLIGENT ENERGY CONSUMPTION IN SMART HOMES," *Int. J. Comput. Inf. Manuf.*, vol. 2, no. 1, p. 2022, May 2022, doi: 10.54489/IJCIM.V2I1.75.

[61] 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.

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

[63] 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.

[64] A. Alhamad, M. Alshurideh, K. Alomari, S. Hamouche, S. Al-Hawary, and H. M. Alzoubi, "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.

[65] 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.

[66] A. Alzoubi, "Renewable Green hydrogen energy impact on sustainability performance," *Int. J. Comput. Inf. Manuf.*, vol. 1, no. 1, p. 2021, Dec. 2021, doi: 10.54489/IJCIM.V1I1.46.

[67] 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.

[68] 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.

[69] M. F. Khan *et al.*, "An iomt-enabled smart healthcare model to monitor elderly people using machine learning technique," *Comput. Intell. Neurosci.*, vol. 2021, 2021, doi: 10.1155/2021/2487759.

[70] P. M. Hamann, F. Schiemann, L. Bellora, and T. W. Guenther, "Exploring the Dimensions of Organizational Performance: A Construct Validity Study," *Organ. Res. Methods*, vol. 16, no. 1, pp. 67–87, 2013, doi: 10.1177/1094428112470007.

[71] M. Alnuaimi, H. M. Alzoubi, D. Ajelat, and A. A. Alzoubi, "Towards intelligent organisations: An empirical investigation of learning orientation's role in technical innovation," *Int. J. Innov. Learn.*, vol. 29, no. 2, pp. 207–221, 2021.

[72] 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.

[73] 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.

[74] 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.

[75] 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.

[76] T. M. Ghazal *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.

[77] S. Hamadneh, O. Pedersen, M. Alshurideh, B. A. Kurdi, and H. M. Alzoubi, "An Investigation Of The Role Of Supply Chain Visibility Into The Scottish Blood Supply Chain," *J. Leg. Ethical Regul. Issues*, vol. 24, no. 1, pp. 1–12, 2021.

[78] G. M. Qasaimeh and H. E. Jaradeh, "THE IMPACT OF ARTIFICIAL INTELLIGENCE ON THE EFFECTIVE APPLYING OF CYBER GOVERNANCE IN JORDANIAN COMMERCIAL BANKS," *Int. J. Technol. Innov. Manag.*, vol. 2, no. 1, 2022.

[79] M. T. Alshurideh, B. Al Kurdi, R. Masa'deh, 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.*, vol. 31, no. 3, pp. 375–396, 2021, doi: 10.1108/RIBS-

08-2020-0102.

[80] 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.

[81] 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.

[82] 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.

[83] S. Y. Siddiqui *et al.*, "IoMT Cloud-Based Intelligent Prediction of Breast Cancer Stages Empowered with Deep Learning," *IEEE Access*, vol. 9, pp. 146478–146491, 2021, doi: 10.1109/ACCESS.2021.3123472.

[84] 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.

[85] N. Ali *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.

[86] 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.

[87] A. Q. M. Alhamad, I. Akour, M. Alshurideh, B. A. Kurdi, and H. M. Alzoubi, "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.

[88] 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.

[89] B. Al Kurdi, M. Alshurideh, and S. A. Salloum, "Investigating a theoretical framework for e-learning technology acceptance," *Int. J. Electr. Comput. Eng.*, vol. 10, no. 6, pp. 6484–6496, 2020, doi: 10.11591/IJECE.V10I6.PP6484-6496.

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

[91] M. S. Aslam *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.

[92] A. Akhtar *et al.*, "COVID-19 Detection from CBC using Machine Learning Techniques," *Int. J. Technol. Innov. Manag.*, vol. 1, no. 2, pp. 65–78, Dec. 2021, doi: 10.54489/IJTIM.V1I2.22.

[93] M. M. 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.

[94] 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.

[95] 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.

[96] 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.

[97] 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.

[98] 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.

[99] 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.

[100] K. L. Lee, P. N. Romzi, J. R. Hanaysha, H. M. Alzoubi, 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.

[101] 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, May 2021, doi: 10.3390/joitmc7020130.

[102] F. Del and G. Solfa, "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.

[103] 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.

[104] 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.

[105] 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.

[106] 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.

[107] 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.

[108] J. Hanaysha, M. Al-Shaikh, and H. M. Alzoubi, "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.

[109] A. Ali, A. W. Septyanto, I. Chaudhary, H. A. Hamadi, H. M. Alzoubi, 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.

[110] 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.

[111] 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. A PATHMAKING J.*, vol. 11, no. 1, pp. 102–135, 2021.

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

[113] T. M. Ghazal *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.

[114] 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.

[115] 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.

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

[117] 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.

[118] 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.

[119] 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.

[120] R. Bibi *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.

[121] 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.

[122] T. M. Ghazal *et al.*, "Hep-pred: Hepatitis C staging prediction using fine {G}aussian SVM," *Comput. Mater. Contin.*, vol. 69, no. 1, pp. 191–203, Jun. 2021.

[123] F. Matloob *et al.*, "Software defect prediction using ensemble learning: A systematic literature review," *IEEE Access*, vol. 9, no. 1109, pp. 98754–98771, 2021, doi: 10.1109/ACCESS.2021.3095559.

[124] 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.

[125] 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.

[126] S.-W. Lee *et al.*, "Multi-Dimensional Trust Quantification by Artificial Agents Through Evidential Fuzzy Multi-Criteria Decision Making," *IEEE Access*, vol. 9, pp. 159399–159412, 2021.

[127] 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.

[128] 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.

[129] 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.

[130] T. Mehmood, H. M. Alzoubi, 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.

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

[132] M. Alshurideh, A. Gasaymeh, G. Ahmed, H. Alzoubi, 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.

[133] M. El Khatib, 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.

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

[135] A. U. Rehman, R. M. Saleem, Z. Shafi, M. Imran, M. Pradhan, and H. M. Alzoubi, "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.

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

[137] M. M. El Khatib *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.

[138] M. 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.

[139] 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.