THE IMPACT OF PULL SUPPLY CHAIN STRATEGY AND JUST IN CASE ON SUPPLY CHAIN PERFORMANCE

Muhammad Turki Alshurideh [1], Barween Al Kurdi [2], Samer Hamadneh [3]

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

[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, s.hamadneh@ju.edu.jo*

ABSTRACT

Every successful businesses rely substantially on effective supply chain management in order to execute its daily operations. Organizational operations management processes profoundly depends on expedient supply chain performance. Some of the most prosperous businesses in the world, including Amazon and Walmart, largely rely on cutting-edge supply chain logistics methods. As a result, all elements of the chain experience significant innovation in this very active market. Therefore, to examine the Pull strategy and Just in case impact on supply chain performance with the help of profound literature, and researches.

Keywords: Pull Supply Chain, Just In Case, Supply Chain Performance

1. INTRODUCTION

A quick responding business is considered to be growing and successful business in the competitive market. More interestingly, business success and development has great charge on its effective supply chain management [1]. In order to justify the supply chain strategies that helps in inventory management, cost effective production and goods provision by exact demand forecast

[2], [3]. Just-in-case (JIC) supply chain management has gained popularity recently, especially in the wake of the coronavirus epidemic [4], [5]. By carrying additional inventory and incorporating redundancy into their supply chains, businesses can respond to unforeseen demand points or reduce supply disruptions [6]–[8]. This is a more conservative strategy. Even though increasing stock levels will result in higher carrying costs and capital commitments, they might ultimately prove to be more profitable [9], [10]. Having the appropriate stock on hand could increase sales and provide businesses a competitive edge [11]–[14]. For the purpose to this research pull chain strategy and just in case strategy considered as dependent variable that need to be assessed by evaluating the supply chain performance. This research would contribute in the literature and great source of knowledge for practitioners in manufacturing industries.

1.1.   Problem Statement

Companies maintain significant accumulations as part of their "just in case" (JIC) inventory strategy. By using this technique, the likelihood that a product would run out of stock is reduced. When a business employs this tactic, it frequently struggles to forecast consumer demand or encounters demand uncertainty, even though JIC is a trending topic but can be found rarely in the research [15], [16]. Therefore, this research is presented with theoretical space that would strengthen the literature and knowledge support for professionals regarding successful supply chain in order to measure the strategical influence of supply chain.

2.   THEORETICAL FRAMEWORK

2.1.   Pull Supply Chain Strategy

The consumer business industry in business and trade market either it is small and big, the whole business operations only depending on the sufficient operational strategy of the supply chain management that helps to meet the required goals of the businesses [17]–[19]. Supply chain industry working on the goals of manufacturing of the raw material to the furnished product in consumers hands [20]. The pull supply chain strategy in business has its own conditions to work and deal with the customers [21]–[23]. The pull supply chain industry focuses on the consumer's specific needs that they required in custom -made products. The consumers ordered significant

products and materials and supplier must be deliver the product that meet the demand of the customer on time [24]. In any industry for example, the company who is dealing in interior designing of the décor in residential and commercial sectors [25]. They should be focus on the specifications of the designing of the material, lights, color, texture and many other related things that meet the customer's interest and satisfaction and then after finalization of the customers, the design goes for the production [26]–[28]. The pull strategy of the supply chain management giving save edge to the suppliers in which they confirmed the sale of the product and then they create the order [29]–[31]. Business owners can save their capitals for investment and do no invested on those projects that are not relate to the customer's need.

2.2.   *Just in Case*

The just in case is one of the strategies in supply chain management in which the business companies in retail industry manufacturing the products in bulk and storage them in ware houses than its expected need and demand [32], [33]. The just in case business model of the supply chain management increasing the value of the demand of the products at any time and supplier will be able to fulfill the consumer demand [34]. The just in case is a business forecasting method in which suppliers are ready to meet the requirements of the products especially in the quantity that is some time not possible to manufacture on time [35]–[37]. The just in time strategy fill the gap between the order taking and delivery process of the products to its consumers [38]. It confirms the inventory management in storage that provide the sufficient need of the market at any time [39]. The just in time method of business reduce the risk factors that are involved in the cost effective models, raw material availability, change of consumer needs, interest and many other related factors that are involved because the ready inventories are on the risk at ware houses and any time their demand can be decrease [10], [40], [41]. The just in time method is opposite to just in case that is only focusing on the products that are ready according to customer requirements [42]–[44]. Just in case business model creating uncertainty among the suppliers and business holders due to its huge quantity of the ready finished products in which huge cost is invested and it is needed to be sold on time otherwise the demand and quality can be affected due to various factors [45].

2.3.   *Supply Chain Performance*

Supply chain management is a process of business that is running the operational and functional activities of the global business industry to meet the requirements of the customers on time [46]–

[48]. The successful business outcome relay on its planning and development of the supply chain assistance and placed their position in market [49]. The supply chain management performance is depending on the operations of the business that are imitating by the raw material purchasing to manufacturing of the products, their demand of the suppliers and finally ready items and goods would be available in market for consumer needs [21], [50]. The supply chain performance is the end stage of the businesses in which companies set their outcomes and measure their performances of the businesses [51], [52]. Since recent years where construction infrastructure places its high position in the world and number of residential and commercial projects are under construction at biggest level the trend of the interior designing and its related beautiful art and features also taking place in consumer industry [53]. People are getting aware for the décor items in their house holds and commercial business properties [26], [54], [55]. The supply chain industry of the retail interior designing market is quite impressive and it has huge margin of the profits if the supply chain performance is efficient in terms of consumer needs and satisfaction. The supply chain performance of the interior décor industry focusing on all ideas that are generated by the architecture, cost of production material, efficient quality and services, consumers aptitude and behavior towards the demand are involved [56]–[60]. The supply chain performance in business strategies is also related with the employee's interest, efficiency of the business model, suppliers' commitments and on time delivery of the products to their concerned authorities.

2.4. Operational Definition

2.4.1. Pull Supply Chain Strategy

The operational line of the pull supply chain strategy in businesses is quite unique then other strategies in which material is ready in bulk but it has many associated risk factors [61], [62]. The pull strategy of supply chain helps to business owners to save their capital only for those objects that are confirmed in order taking process and then goes for production [36], [63]. The pull strategy is depending on the consumptions of the customers according to their needs. The pull strategy also focusing on the trends of the market and its requirement of the customers that could be change at any time due to several reasons [64]. The pull demand strategy of supply chain has less loyalty of the business because it is only focusing on limited market and product and only taking initiative for those objectives that are in running levels.

2.4.2. *Just in Case*

Just in case is the strategic approach in the supply chain management where the organization have sufficient amount of inventory to meet the demands of customers [65], [66]. The operational strategy of the just in case in supply chain management is a process of inventories that are ready in stock [67] and prepared to distribute in market at the time of the order but there are number of associated factors are involved [68]–[70] in just in case method in which reliability of the suppliers, production cost of the raw material, storage capacity and ware house cost, fuel, transportations and most important the change of consumer behavior at any time in market [42], [71], [72]. The just in case strategy also effected by the innovation in market with new product features that can reduce the demand of the existing stock [73], [74]. Where business trends are moving fast and the consumer needs and behavior also going to be change, at this stage, the just in case strategy of the supply chain management facing many issues [75], [76]. The ultimate change of consumer behavior is a most challenging situation for the business owners who already prepared bulk quantity of the products and they are doing effort to sold them urgently [77]–[80]. The just in case method also involved with the factor in which at the time of the order of the customer, they need urgent delivery of the products and just in case strategy helps to achieve the supplier's goals efficiently with the help of their finished goods in stock [81].

2.4.3. *Supply Chain Performance*

The operational management of supply chain performance is a measuring tool that decides the actual operational activity that meet the goals of the industry and satisfy the needs of customers by providing the required products [82]. The successful businesses are relating with the supply chain performance that create the efficiency and reliability of the entire objectives that are involved in operations [83]–[85]. The supply chain performance focusing on the quality of the products and create the huge margins of the profitable outcomes and deliver best customer experiences [86], [87]. The supply chain performance in business organizations focuses on the product manufacturing to their deliveries with accuracy of the commitments with their customers [88], [89]. in order to face the competition in retail business industry and especially in interior décor where number of interior designer are coming in market and giving competitive ideas in cost effective prices, the supply chain performance is one and only option that helps to customers to get quality services and develop the trust on its suppliers [90]–[93]. The quality product and services on time delivery opportunities is a basic requirement of the customers that they are

expecting to their suppliers and performing measures of the supply chain [94]helps to develop the resources to meet the demand of the customers [95], [96]. Customers gain trust on those suppliers who are committed and focusing on the delivery of the products on time [97]. The technology implementation in business industry especially in supply chain management is one of the revolutions in business that helps to evaluate the customers' needs and their demand with product features and creating possibilities to deliver their order on time [98]–[100]. The technology also improves the efficiency of the performance of the supply chain in business industry.

3. LITERATURE REVIEW

The timing of product fabrication, delivery to distribution hubs, and availability in the retail channel is determined by supply chain strategy. In a pull supply chain, process is driven by current customer demand, but in a push supply chain, strategy is driven by long-term forecasts of consumer need [101], [102]. [103] investigated that modern management system needs just in time and pull strategy to meet demands. The relationship between our both independent variables the pull supply chain strategy and just in case is quite different to each other [104]. The pull strategy of the supply chain mainly focusing on those objectives that are only significant with customers needs for their specific requirements in product making and distribution [105]–[107]. While just in case is a supply chain model that manufacturing the inventories in bulk in stock in order to meet customers immediate demand and do not want to lose the customer's expectations [108], [109]. The pull supply chain strategy is the safest way to secure the investors capitals in production unit while there are number of risk factors are involved in just in case strategy to maintain the product inventories for a longer period of time [110]–[112].

Pull chain strategy and supply chain performance has significant role in the effectiveness of operations [113], [114]. The pull supply chain strategy and supply chain performance has significance association [115], [116]. Our dependent variable of the supply chain performance is one of the business unit measure that is involved in all kind of operational and functional activities of the business industry and no business can succeed its goals without supply chain management performance [117]–[121]. The business forecasting evaluates the all risk factors and design policies that can overcome the threats on time and making possible solutions to maintain their effective performance of supply chain [105]. The pull strategy has the great effect of performing

measures of the supply chain [122]because the pull strategy do not effort to sale their products because it is already customer -made that is design by the unique features that are the demand of the customers and supply chain performance already placed its position [1], [123].

[124] evaluated Just in case has significant impact on supply chain performance. The relationship of the just in case and supply chain performance is relating to each other in effectively. The study has proved that the just in case is mainly focusing on the material production that is in huge quantity in order to meet the customer requirements on immediate order delivery [125], [126]. The just in case business model is depending on the business organizations forecasting in which they assume the demand of the market at any time and there are many risk factors are involved in just in case method [127], [128]. The only supply chain performance can create the efficiency of the product delivery in market through the supplier's commitments and product efficiency to increase the demand among the customers [129], [130].

[131] explained the impact of pull chain and just in case on the supply chain performance to meet the needs. The relationship of both independent variables of pull supply chain strategy and just in case with dependent variable of supply chain performance are associated [132]. The both independent variables relay on supply chain performance in business success [133], [134]. The pull strategy focusing only those objectives that are confirmed from customers for specific requirements while just in case developing huge quantity of the products that is associate with the risk factors due to many reasons of market change behavior and inventory management system [135], [136]. The both independent variables only can create the business efficiency with the help of effective supply chain management and performance measures that are required for successful business outcomes in all industries [137] especially in interior décor where consumer change behavior is rapidly growing and expecting new ideas from their suppliers [138], [139]. Both supply chain strategies of pull and just in case need strong polices to manage the performance of the supply chain management in order to develop the sale and profit of the ready items in market.
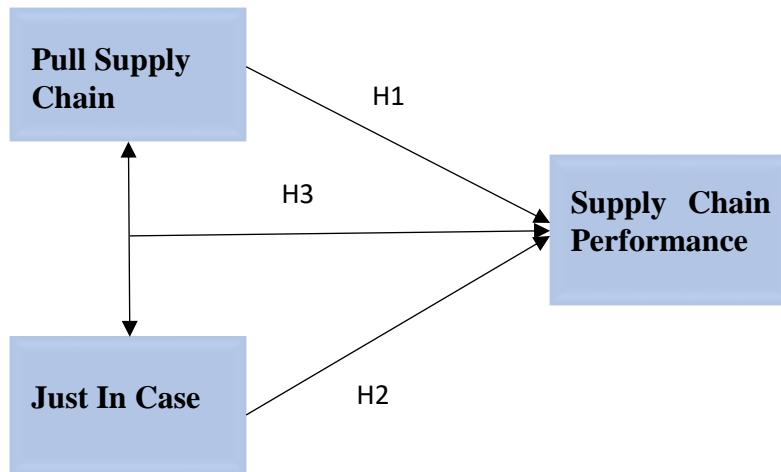
3.1 General Research Model

Figure1: Conceptual Research Model

4. DISCUSSION

Companies rely on supply chain management to handle the process swiftly and effectively, from the acquisition of raw materials to all necessary processing and the final delivery of goods. When a product should be manufactured, transferred to storage facilities, delivered to a retail location, or shipped is determined by supply chains. This is a difficult task that mainly relies on future-proofing to take delays into consideration. Organizations can plan out their supplies based on a variety of criteria based on their precise demands with the use of supply chain strategies. Just-in-case supply chains work by foreseeing customer needs. Companies utilize just-in-case supply chain resilience techniques to lower the risk of stock outs caused by widespread disruptions and complexity that has positive impact on supply chain performance of any organization. Carrying as much inventory as you can to hide bad forecasting techniques shouldn't be the goal of just-in-case inventory management. An effective JIC strategy depends on accurate demand forecasting. Finding the ideal balance between satisfying demand and not buying too much stock is crucial that may ultimately leads toward improved SC performance. Whereas, a pull supply chain's manufacturing and supply processes are driven by actual consumer demand. In this type of supply chain logistics, inventory is acquired based on demand. One advantage of using this method of planning when demand is low is that there will be less waste.

5. CONCLUSION

There are several ways that just-in-case inventory management can support expansion and profitability. This research concludes the several authors' argument that shows an increased competitiveness and supply chain performance are better able to manage business operations. The strategic implementation of supply chain enhances the inventory management, order delivering efficiently and cost effectively. The just in case strategy and pull chain strategy figure out various advantages for the growing supply chain management. In contrast the pull chain strategy administer the inventory management focused on the unique requirements that customers had for custom-made goods. Customers ordered large quantities of goods and supplies, and the supplier had to meet the deadline by delivering the goods. These strategies help the organizations to implement in order to acquire supply chain performance and sustainable competitive edge.

REFERECES

[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]   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, Dec. 2021, doi: 10.54489/IJTIM.V1I2.24.

[3]   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.

[4]   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.

[5]   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.

[6]   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.

[7]   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.

[8]   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.

[9]   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.

[10]   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.

[11]   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.

[12]   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.

[13]   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.

[14]   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.

[15]   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.

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

[17]   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.

[18]   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.

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

[20] 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.

[21] 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.

[22] 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.

[23] 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.

[24] 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.

[25] 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.

[26] 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.

[27] 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.

[28] 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.

[29] 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.

[30] H. Carvalho, S. Duarte, and V. C. Machado, "Lean, agile, resilient and green: Divergencies and synergies," *Int. J. Lean Six Sigma*, vol. 2, no. 2, pp. 151–179, 2011, doi:

10.1108/20401461111135037.

[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]   N. Alsharari, "Integrating Blockchain Technology with Internet of things to Efficiency. International Journal of Technology," *Innov. Manag. (IJTIM),* vol. 1, no. 2, pp. 1–13, 2021.

[33]   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.

[34]   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.

[35]   S. Muneer and H. Raza, "An IoMT enabled smart healthcare model to monitor elderly people using Explainable Artificial Intelligence (EAI)," vol. 1, no. June, pp. 16–22, 2022.

[36]   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.

[37]   A. Q. M. Alhamad, I. Akour, M. Alshurideh, A. Q. Al-Hamad, B. Al Kurdi, and H. 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, doi: 10.5267/j.ijdns.2021.6.002.

[38]   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.

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

[40]   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.

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

[42]   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.

[43]   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.

[44] 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.

[45] 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.

[46] 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.

[47] 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.

[48] 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.

[49] 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.

[50] 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.

[51] 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.

[52] 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.

[53] 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.

[54] 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.

[55] 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.

[56] 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.

[57] 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.

[58] 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.

[59] 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.

[60] 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.

[61] 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.

[62] 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.

[63] 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.

[64] 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.

[65] 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.

[66] 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.

[67] 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.

[68] 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.

[69] 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.

[70]   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.

[71]   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.

[72]   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.

[73]   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.

[74]   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.

[75]   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.

[76]   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.

[77]   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.

[78]   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.

[79]   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.

[80]   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.

[81]   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.

[82]   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.

[83]   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.

[84]   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.

[85]   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.

[86]   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.

[87]   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.

[88]   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.

[89]   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.

[90]   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.

[91]   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.

[92]   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.

[93] 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.

[94] 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.

[95] 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.

[96] 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.

[97] 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.

[98] A. Alhamad *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.

[99] 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.

[100] 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.

[101] 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.

[102] 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.

[103] 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.

[104] 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.

[105] 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.

[106] 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.

[107] 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.

[108] 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.

[109] 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.

[110] 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.

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

[112] M. Alshurideh, B. Kurdi, H. 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, 2022.

[113] 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.

[114] 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.

[115] 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.

[116] 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.

[117] 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.

[118] 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.

[119] 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.

[120] 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.

[121] 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.

[122] 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.

[123] 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.

[124] 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.

[125] 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.

[126] 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.

[127] 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.

[128] 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.

[129] 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.

[130] 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.

[131] 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.

[132] 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.

[133] 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.

[134] 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.

[135] 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.

[136] B. Kurdi, M. Alshurideh, I. Akour, E. Tariq, A. AlHamad, and H. 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.

[137] 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.

[138] 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.

[139] 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.