COVID-19 PANDEMIC AND STUDENTS' LIFE: THE IMPACT ON EMPLOYMENT OPPORTUNITIES

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ABSTRACT

Global employment has been severely harmed by the Covid-19 pandemic, especially among youth seeking career opportunities. This research was aimed to determine how the epidemic affected student's life and their employment opportunities, as Covid-19 pandemic limited the work progression, direct communications and socialization. A systematic review of this research assisted to find the factors faced by students and how negatively this pandemic affected the career life of the students and professionals. Whereas, every student who works part-time while enrolled in college or a university have lost their jobs, that had a big impact on their academics and work life for students who rely on part-time financing.

Keywords: Covid-19, Students Work life, Employment Opportunities.

1. INTRODUCTION

When the Covid-19 outbreak first began, everything changed instantly. The coronavirus was viewed as a formidable threat and had a significant negative influence on our lives on a social,

psychological, physical, and financial level [1], [2]. It all started back in December,2019 when all the world start shares "rumors" about having a serious disease that cause death which is covid-19 in China Wuhan [3]–[5]. Then it started to spread country over country till it was spread all around the globe [6]. One of the major impacts that coronavirus cause, is education, which in this report we will discuss the main issues and challenges that corona has made on education [7]–[9]. In the beginning of the pandemic all countries around the world were not fully prepared to face something like this [10], [11]. Since the E-learning was already existed, ministries of education have decided to not stop the schools and universities and start to use distance learning [12]. At first, it was challenging for the teachers and students to be familiar with the new technology and how to use this in term of entering online lectures [13], [14]. Moreover, online learning has also affected the student's families because not all families are having higher income to afford for their children's computers or tablets to continue studying online, and some families has suspended their children from schools or universities just because they don't believe in "online learning" which this had a huge effect on student's mental health and the educational level [6], [15], [16]. Nevertheless, if we want to be realistic, online learning is not suitable for all levels because primary kids have to be face to face with teachers because they're mentally programmed that they're at home and they can do whatever they during the lecture time, so they will lose concertation [17], [18]. In addition, this negative effect is not only for primary students but also on higher school levels and university students which would also lead to lower GPA's due the lack of concentration [19], [20]. On the other hand, distance learning has also shifted the students minds of traditional educations because it has made the students life easier in term of attendance that is can be accessible from anywhere and some students has enhanced their GPA's due to plenty of time that they have during the pandemic [21], [22], so they don't have anything to do but only focusing on their studies [23]–[25]. Some educational institutions are bargaining to continue online learning but not in all fields because some of them are required to be physically in a classroom to get better absorption for the information's that they're receiving.

2. THEORETICAL FRAMEWORK

2.1. Future employment opportunities

According to [26], coronavirus have influenced students' lives psychologically, but not only that, it also has a major impact on student's future employment opportunities after they graduated because covid-19 has impacted the economic health and the external employment labor market [27]. According to [28], [29], stated that there were more than 70% of universities students and students who are working and study at the same time are passively affected due to the closing of universities, schools and skills improvement centers [30]–[32]. Moreover, around 65% of postgraduate students stated that the quality of their education has been affected due the pandemic that made them go for online learning [33], [34]. postgraduate students are now concerning about their chances to get a job and build their future career due the uncertainty of the situation and how life is going to get back to normal after covid and how the general global economic situation will be [35]–[37]. As , it stated that around 38% of postgraduate students are uncertain about their destiny because of the pandemic [38], [39]. One out of six youth has already felt that the pandemic has a direct effect on them, and it prohibited them from working while others are employed in affected institutions but yet, they had a slight reduce in their incomes due the global crisis [40], [41]. Furthermore, due the high rate of unemployment students, they're heavily concerned about losing their skills and competences and this would lead to reduce their opportunities to be selected by employers [42]–[45]. In today's era, the international organizations have shifted their strategic planning of workforce by seeking unique candidates with premium abilities that will have a growth on their businesses by positioning themselves in their industries that they're competing by having a unique workforce [46]–[49]. Due to that, coronavirus has made the competition harder than ever because the world is shifting to be more technological advanced and made the organizations to put high standards for people to be accepted in a regular job [50], [51]. There is a study where after having covid 19, there are some sectors that the demand is exceeding the supply and there's a good chance for these areas to be more innovative and grow [52], such as health/care and nursing, business, and information technology [53]–[56]. The business field in project management, business strategies and business process and analysis are having a demand > supply by 21%. Which's still a good chance to be employed and enhance the efficiency of a particular business [57], [58]. It has investigated that corona virus has made the students career choices are uncertain and putting them under the pressure where they don't want to lose their skills due the high unemployment rate while they should also be unique with outstanding performance [59], [60].

2.2. Mental and Financial capacity… Are they stable?

When this pandemic happened, a lot of dimensions in life went downhill. Mental and physical health, financial capacity, basically everyone's lives has gotten drawbacks [61], [62]. For students who already have mental health problems, it might have gotten worse for them [63], [64]. For example, if a student stays online for a long period of time, using apps like Blackboard, Zoom, Microsoft teams, it could lead to introversion [65]–[67]. Introversion is defined as "a person who enjoys spending time alone and shows more reservation than enthusiasm in social settings" [68], [69]. This causes students to be isolated from anyone and anything since they don't get to have physical interactions anymore [70], [71]. Online interaction feels odd because talking to a screen might give an awkward feeling [72], [73]. The lack of interacting in online learning gives a student the need to be lonely, distancing themselves from the world [74]–[76]. Therefore, lacking interaction will most probably develop social anxiety towards students, making it hard for them to present their work, raise their hand, or do anything that involves talking to the professor or other students [77], [78]. According to fenews.com, an average of 80% have been admitting that they have been feeling lonely due to social distancing [79]–[81]. This obviously occurs to many other people (students) who have been at home for too long with zero interaction. Moving onto the financial capacity, researchers have found that "74% of young adult students have been struggling financially after the covid-19 outbreak" [82], [83]. A lot of parents and adults have lost their jobs due to the Covid-19 pandemic, or have been getting low income, since no one anticipated an intense virus as Covid-19, and it was tough to adapt to the new work from home strategy [84], [85], this pandemic has damaged the economic status of many countries [86], [87]. When it comes to students, students are now struggling to pay tuition fees because their families have grocery shopping to do (including the panic buying that has occurred), the low income, and rent payment [88], [89]. Students not being able to pay tuition fees would ban them from studying in that semester, and of course, no person would want that happening to them in their educational year [90], the year where we must develop ourselves and educate [91]–[93]. Finances have been a burden to students and gives them the intent to start working so they don't rely much on their parents as well [94], [95]. If we want to relate these two together, financial issues also contribute to low mental health [96]. To prove this point, "91% are worried about someone in their family and financial insecurity is an unwanted added stress at this time of life". Not having enough money
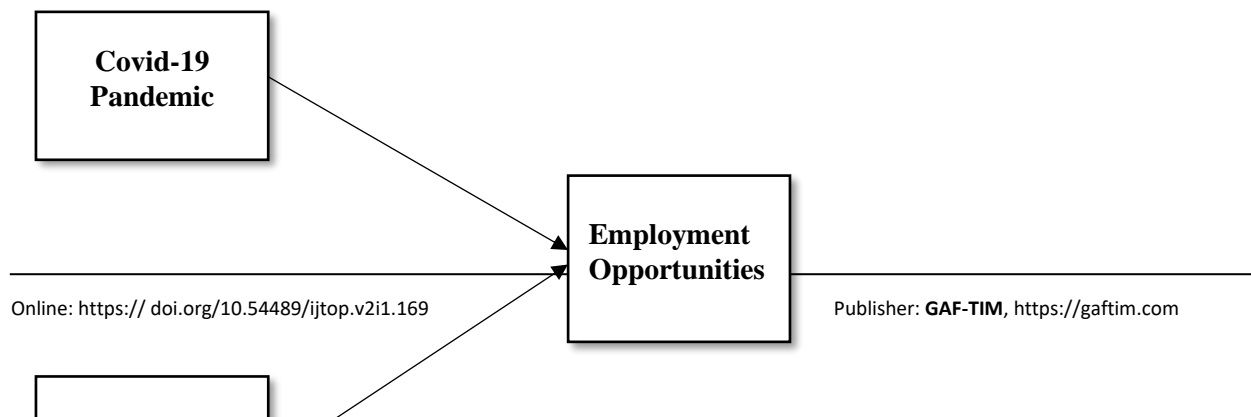
could cause a student to give up on their studies, sacrificing for their family's wellbeing, despite the risk of them not continuing their university life.

3. LITERATURE REVIEW

Through the time form of education has been changed under their technical development. for example, from the beginning when mankind hasn't developed their language [97], they deliver their information through the paint on the wall or their verbal assumption [98], [99]. However, in here since late 2019 when Covid overwhelm our life we had no choice to continue our education system in the offline school [100], [101]. Hence, we been moved our education system through E-learning, and it result various difficulty with advantage under their circumstance. Before we enter effect of Covid basic educational system wasn't provide for general people around the world instead it was priority from rich perform countries [96], [102], [103]. According to World bank over review they demonstrate that About 70 percent of the global poor aged 15 and older have no schooling or only some basic education [104], [105]. Hence, from the beginning they been suffered to have their education. However, after Covid when basic technical requirement getting higher to have their proper education, they been suffering dark age of education since 2019 [106], [107]. According to UN (united nation) they demonstrate that there are several issue while they try to perform on E-learning for example, delay on budget due to financial crisis around the world [108], safety shortfall since they have lack of financial support to protect student from covid and lastly prioritize of E-learning even though they have lack of technical support general education sponsor they try to seek to have distance learning which is impossible to have [109], [110]. As a result, UN state that "We were worried about 'learning poverty' before the pandemic and also about the inequality in learning opportunities [111], [112]. Now the learning baseline is lower, but the increase in inequality of opportunities could be catastrophic [113], [114]. The task of reigniting the learning process is extremely urgent." With those word they been strongly state their need of financial support with actual educational help that they could proceed in poverty filed [115], [116]. However even as a user of E-learning student and teacher they been face various issue under their education procedure. For example, most of student or teachers are not familiar to have distance learning in technically [117], [118]. They been faced with difficulty to have clear connection, pre-education of E-learning, smart device application, assistance require on young generation and so

on [119], [120]. They been faced with various difficulty that they never been experience in their education field [121], [122]. Yet, with excellence of E-learning structure in UAE they demonstrate high satisfaction in their education. According to study of Ajman university, who demonstrate Advantages and Disadvantages of Using e-Learning in University Education they found that 81% students stated that e-learning provides scientific material in an interesting way [123], [124]. Similarly, 80% students have responded that e-learning increases the possibility of contact between students among themselves and between the students and the teacher which mean they experience stability in their study if they perform in well-structured educational system despite their inconvenience [125], [126]. However, to build such comfortability they require unusual cost [127]. Unlikely traditional education they require some preparation such as to launch their beginning stage of educational filed from Blackboard, pre- education to DR and student and administrative people [128], and technical team who could give direct feedback and follow upcoming issue [129]. For those, cost would be required yet it might seem unnecessary cost but to being consider future metaverse culture they seem reasonable to adapt for pre-metavese [130], [131]. On the other hand, they also point out in terms of social isolation. In traditional education between student with teachers or student with student they build their social relation and learn social behavior that beyond education [118], [132]. Most people have been concern their basic social activities in the school yet with excellence of social media they could perform more freely [133], [134]. For example, according to Estimated U.S. social media usage increase due to coronavirus home isolation 2020 43.1 percent of respondents stated that if confined to their homes during the coronavirus, they would use Instagram more during that period [135]–[137]. Which mean they has been involved more on social media so they can expand their social relationship [138], [139]. Also, in study of Ajman university state that UAE student they state that with those isolations they feel it is more easy access to contact with people more than in real life.

3.1. General Research Model

Figure 1: Conceptual Research Model

4. DISCUSSION

The proposed research model given above in the figure 1 assisted to demonstrate the relationship and impact of Covid-19 on student's life and their employment opportunities, with the help of literature, journals, research articles and "World Health Organization" website, we found several facts that have proven the negative impact of Covid-19 in employment opportunities and work life of the students. There are some factors defined below authenticating the model relationship.

4.1. Challenges faced with online learning

When it comes to online learning, a lot of challenges are faced since we're all away from our campuses after all. The Covid-19 outbreak has basically forced all of us to convert to online learning, it was kind of tough to adjust to a learning style as this. "Recent polling in April 2020 has discovered that 77% of more than 700 college students said that distance learning is way worse than on campus classes". As for now, online learning has become an efficient learning style and it's considered as a good way to deliver course materials to students. However, below are some of the known challenges students still face when it comes to online learning.

4.1.1. Staying Motivated, As well as Distractions

Having the motivation to be attentive or do coursework has been a hassle to students, since their homes can't be somewhere to attend classes in. It is a good thing for students to just remain on their usual setting at home instead of getting ready to drive all the way to their campus, but it's also encouraging not paying attention to class because it's a struggle to keep in mind that students should start inducing their college lifestyle at home now, "students try to "put on a brave image" in class, then leave, feeling frustrated and confused, learned nothing from their course." (Meratas. A, 2020) This causes students to be left behind with their courses and start studying everything the

last minute. Moreover, distractions might occur at home which will drain the student from not doing anything related to their coursework, such as social media or online shopping. Social media can be such an easy distraction since the professor isn't visible in the student's setting and they're just talking on screen, right? Which makes it easier for students to surf through different websites and not paying a tad bit of attention to the ongoing course at all. Another distraction could be family members, family members could cause background noises that would interrupt a student, or they would rely a lot on them for minimal help. Distractions like these cause burn outs for students and give them the intent to not do anything productive anymore, and barely pay attention.

4.1.2. Technical Issues

Making use of modern technology might be both good and a bad idea, it's a good idea because everyone whether student or professor could get used to computers and other electronic devices, as well as learning different techniques on them. Although, the disadvantage here could be technical issues. Technical issues could be a core challenge for online learning since online learning consumes too much internet. Internet data load could cause lags which will make it hard for students to speak if they're trying to participate, or their screens would lag if a professor were explaining, and when exams occur. During exam times, all students are paranoid about sudden internet connection troubleshooting while taking the test, it gives a student immense stress and "what if" thoughts mid exam. Seeking consistent internet speed is a problem.

4.1.3. Time Management and Screen Time

Online learning sure lets students attend anywhere they can, and classes are recorded for students to watch them again if they need it. Students can plan their day if recordings exist and they're able to study at the time they want. But what if that takes a turn? The issue here is the amount of time a student spends on their screen, too much screen time could be hazardous for someone's vision. Also, "students develop physical problems such as bad posture or low stamina for staying on the screen for too long" which cause limited body energy. When students have workload, they'd be obliged to stay in screen to type reports and design presentations, it would give them a tough time on managing their priorities and physical issues.

4.1.4. Recommendations for the Educational Institutions

We have to agree that distractions are often accompanied by online learning. For instance, when you go online to get an information, your attention will be taken by an advert which will be

consuming a lot of time and end up not finding the information you went for. This is a problem to online classes. We are sure that online classes can be important to most students who cannot access the physical schools and using the available resources for online learning does have adds. Maybe if the educational facilities focused in funding a source online that is private to the school can help minimize the rate at which pop-up adds distract students. Also, the teachers should take note that students will always find a way to stay distracted in the class and calling names randomly to answer a specific task can help trigger their attention and help them concentrate in the lesson. The students will have to listen to what is being said to avoid being or feeling lost when asked a question.

The teachers should also be given prior training to such online classes. Unlike physical classes, most teachers find it hard to keep the students engaged. In addition, some teachers often mute their mics during lessons unknowingly and end up talking to themselves for sometimes unless told by the students which can be rare if the lesson is boring to most students. The facility should answer work on a way of providing students with tablets that can help those that cannot afford and have them return them when they are done with their studies. Previously, the institutions assumed that their students owned at least a smartphone and was in an area with internet network coverage. This assumption meant that some students had to miss the online classes and only take notes from other students who were able to attend such classes. This was devastating to those students that were not in possession of a smartphone or tablets which meant that disfavored.

5. CONCLUSION AND RECOMMENDATIONS

The on-sight of Covid-19 saw many businesses and educational facilities struggling with the change. Schools are used to having students attend physical classes and the idea of engaging in online classes has been a new thing even for many schools and facilities excluding those that had embraced the importance of technology in their educational systems. Since the E-learning was already existed, ministries of education have decided to not stop the schools and universities and start to use distance learning. At first, it was challenging for the teachers and students to be familiar with the new technology and how we should use it in term of entering online lectures and how to interact virtually as well as doing online exams which was a bit shocking for us as a students and teachers/professors.

There is no doubt that Covid-19 had a significant impact on students' lives. There are various ways that could be implemented by the government and our institution to ensure a smoot transition. Like any other change, transitioning from online classes to virtual classes was hard for most students.

With the syllabus coverage rush and the government turning a blind eye to the importance of our education our online classes proved to be more challenging than enjoyable. The government and the institutions should have come up with a way to ensure that the change from physical classes to virtual classes was well handle and had the least adverse effects on the students.

Though online classes do prove important to solving issues brought by various crisis such as Covid-19, there are some classes that require physical attendance especially those that involve practical. Furthermore, there are some requirements of a class that might not be available to all the students at home and together with the inability to access the online classes it does prove challenging The schools should always ensure that every school is able to access the online classes and is engage in the lesson for their own benefits.

REFERENCES

[1]   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.

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

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

[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]   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.

[6]   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.

[7]   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.

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

[9]   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.

[10]   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

[11]   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.

[12]   H. M. Alzoubi, M. T. Alshurideh, B. Al Kurdi, B. Obeidat, S. Hamadneh, and A. Ahmad, "The influence of supply chain partners' integrations on organizational performance: The moderating role of trust," *Uncertain Supply Chain Manag.*, vol. 10, no. 4, pp. 1191–1202, 2022, doi: 10.5267/j.uscm.2022.8.009.

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

[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, 2021, doi: 10.54489/ijtim.v1i2.26.

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

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

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

[18]   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.

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

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

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

[22]   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.

[23]   H. M. Alzoubi, B. Al Kurdi, 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.

[24]   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.

[25]   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

[26]   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.

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

[28]   H. M. Alzoubi, B. Al Kurdi, M. Alshurideh, I. Akour, E. Tariq, and A. Alhamad, "The effect of social media influencers' characteristics on consumer intention and attitude toward Keto products purchase intention," *Int. J. Data Netw. Sci.*, vol. 6, no. 4, pp. 1135–1146, 2022, doi: 10.5267/j.ijdns.2022.7.006.

[29]   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.

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

[31]   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.

[32]   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.

[33]   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.

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

[35]   H. M. Alzoubi *et al.*, "Empirical linkages between ICT, tourism, and trade towards sustainable environment: evidence from BRICS countries," 2022, doi: 10.1080/1331677X.2022.2127417.

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

[37]   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.

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

[39]   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.

[40]   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.

[41]   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.

[42]   H. M. Alzoubi and Y. Ramakrishna, "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.

[43]   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.

[44]   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.

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

[46]   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.

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

[48]   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.

[49]   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.

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

[51]   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.

[52]   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.

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

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

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

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

[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]   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.

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

[60]   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.

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

[62]   T. M. Ghazal *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.

[63]   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.

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

[65]   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.

[66]   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.

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

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

[69] 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.

[70] 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.

[71] 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.

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

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

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

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

[76] 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.

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

[78] M. Alshurideh, R. 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. 12, pp. 69–78, 2012.

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

[80] 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.

[81] 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.

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

[83]   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.

[84]   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.

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

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

[87]   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.

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

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

[90]   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.

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

[92]   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.

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

[94]   H. M. Alzoubi, M. Alnuaimi, 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.

[95]   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.

[96]   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.

[97]   T. M. Ghazal, H. M. Alzoubi, and M. Alshurideh, "Integrating BLE Beacon Technology with Intelligent Information Systems IIS for Operations' Performance: A Managerial Perspective," 2021, pp. 527–538. doi:

10.1007/978-3-030-76346-6_48.

[98]   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.

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

[100]   H. M. Alzoubi and R. Yanamandra, "Investigating the mediating role of information sharing strategy on agile supply chain," *Uncertain Supply Chain Manag.*, vol. 8, no. 2, pp. 273–284, 2020.

[101]   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.

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

[103]   T. M. Ghazal *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.

[104]   H. Alzoubi and M. & Alnazer, N., Alnuaimi, "Analyzing 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.

[105]   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.

[106]   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.

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

[108]   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.

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

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

[111]   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.

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

[114] 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.

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

[116] 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, 2017, doi: 10.1080/13527266.2017.1322126.

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

[118] 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.

[119] 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.

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

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

[122] 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.

[123] 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.

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

[125] 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.

[126] 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.

[127] 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.

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

https://www.researchgate.net/publication/352159596

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

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

[131]   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.

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

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

[134]   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.

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

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

[137]   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.

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

[139]   M. Alshurideh, B. Al Kurdi, S. A. Salloum, I. Arpaci, and M. Al-Emran, "Predicting the actual use of m-learning systems: a comparative approach using PLS-SEM and machine learning algorithms," *Interact. Learn. Environ.*, pp. 1–15, 2020.