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BUSINESS MANAGEMENT AND ITS MODELING WITH ARTIFICIAL INTELLIGENCE

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ABSTRACT

Business management is the process of organizing and overseeing the operations of a business to ensure efficiency, productivity, and success. It involves planning, directing, coordinating, and controlling various resources and activities within an organization to achieve its goals. Effective business management requires strong leadership, strategic decision-making, effective communication, and the ability to adapt to changing market conditions. In today's digital age, AI technologies are playing an increasingly important role in enhancing business management practices by providing data-driven insights, automating routine tasks, and improving decision-making processes. By leveraging AI tools and solutions, managers can gain a competitive edge, drive innovation, and optimize performance across all areas of their organization.Business management refers to the process of coordinating and overseeing the activities of a business or organization in order to achieve specific goals and objectives. This includes planning, organizing, leading, and controlling resources to ensure that the business operates efficiently and effectively. Business management involves making strategic decisions, managing people and processes, and continually improving performance to drive success and growth.

KEYWORDS: *Business Management, Artificial Intelligence, Modeling, Management Future, Performance Improvement.*

INTRODUCTION

The development of Management Information Systems (MIS) is Impossible without the use of machine learning (ML). It's a type of Artificial Intelligence (AI) that makes predictions using statistical models. When It comes to financial analysis, there are numerous risk-related concerns to contend with today (FI). In the financial sector, machine learning algorithms are used to detect fraud, automate trading, and provide financial advice to investors. To better serve its customers, the financial sector can now save borrower data according to specific criteria thanks to MIS. In fact, there is a large amount of data about debtors, making load management a difficult task. ML can examine millions of data sets in a short period of time without being explicitly programmed to improve the results. This type of algorithm can aid financial institutions in making grant selections for their clients. For the objective of classifying FI In terms of fraud or not, the Intelligent Information System for Financial Institutions (IISFI) relying on Supervised ML

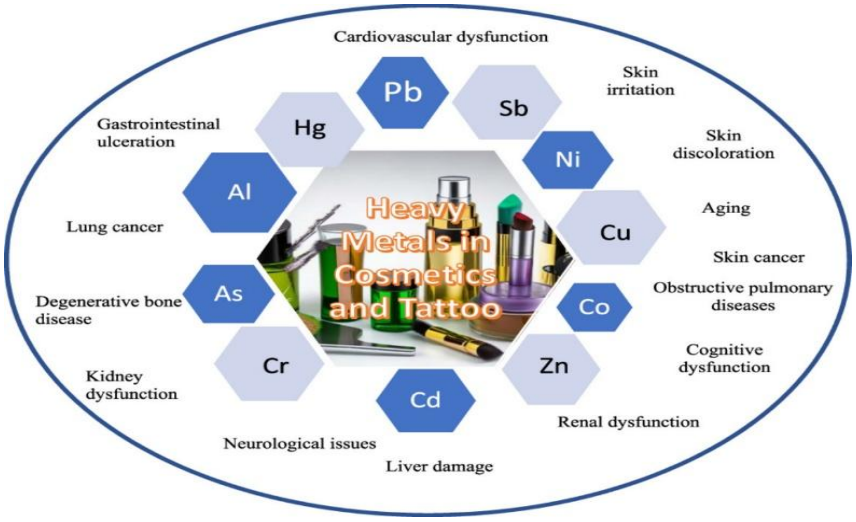
(SML) Algorithms has been created In this work. Bayesian Belief Network, Neural Network, Decision trees, Naïve Bayes, and Nearest Neighbor has been compared for the purpose of classifying FI risks using the performance measures asfalse positive rate, true positive rate, true negative rate, false negative rate, accuracy, F-Measure, Mean Absolute Error (MAE), Mean Squared Error (MSE), Root Mean Square Error (RMSE), Med AE, Receiver Operating Characteristic (ROC) area,Precision Recall Characteristic (PRC) area, and measures of PC. 1

Manufacturers are exploring the extent to which digital technology applications can support their sustainability efforts by helping to convert abstract sustainability goals, such as those of net-zero emissions and circular economy (CE), into feasible and practical actions, achievements, and ultimately, a sustainable competitive edge. This work adopts a resource-based view (RBV) to explore the potential role that digital technologies play in the cultivation of a manufacturing firm's competitive advantage, and the deployment of existing internal resources and core competencies to achieve net-zero manufacturing emissions and CE. Two questions are addressed: (1) What competitive advantage(s) may be derived from the integration of digital technologies to achieve net-zero manufacturing emissions, and (2) does adopting an RBV facilitate the development of meaningful (and novel) competitive advantage? Engaged scholarship is used to analyse and apply theory to an empirical, real-world dataset documenting the perspectives and experiences of 13 manufacturing firms. Applying the VRIO framework, 21 identified digital technology-based core competencies are categorised as forms of competitive advantage that may be possible for manufacturing firms pursuing net-zero emissions. Four scenarios of digital technology adoption pathways are proposed, differentiated by the degree of radical vs. incremental interests and options available to the firm. This study highlights the critical need for firms to incorporate intangible asset management and development, including the labour and supply chain relationships, as part of their digital transformation strategies. Further, we demonstrate the potential of RBV as a lens for evaluating the competitive advantage potential of corporate sustainability initiatives, and facilitating the development of related strategies 2

Fish constitute important high protein products to meet the demands of an increasing global population. However, the continued depletion of wild fish stocks is leading to increased strain on the aquaculture sector in terms of sustaining the supply of fish and seafood to global markets. Despite the fact that aquaculture is more diversified than other agriculture sectors, there are significant pressures on the industry to continue innovating in order to enable sustainability including increased fish production, improved appropriate selection of species, disease mitigation, reduced wastage, preventing environmental pollution and generating more employment globally. This viewpoint article addresses how digital transformation can help support and meet expansion needs of the fisheries/aquaculture industries that includes exploiting and harnessing ICT, IoT, Cloud-edge computing, AI, machine learning, immersive technologies and blockchain. Digital technologies are bringing significant operational benefits for global food chain, improving efficiencies and productivity, reducing waste, contamination and food fraud. The focus on digital technologies has recently evolved to Industry 5.0 where AI and robotics are coupled with the human mind in order to advance human-centric solutions. This viewpoint describes the role of Quadruple helix Hub (academic-industry-government and society) in delivering a convergent holistic approach to meeting the diversity of fishery industry needs by connecting and placing fisheries centrally in a defined ecosystem of stakeholders. This includes specialist training, testing technologies, providing access to finance and fostering disruption through aquaculture accelerator initiatives such as that provided by Hatch Blue. Connecting

digital Innovation Hubs trans-regionally, nationally and internationally will also help mitigate against significant risks for the fisheries and aquaculture industry including climate change, global pandemics and conflicts that can jeopardize fish and seafood production and supply chains. There is also a commensurate need to avail of digital technologies in order to increase awareness of key industry issues across the value chain, such as through social marketing. Thus, addressing key challenges by way of the global digital transformation of fishery and aquaculture industry will meet several sustainable development goals of the United Nations catered around the application of disruptive technology. 3

Drawing from a digital postcolonialism perspective, this paper explores how the leftover technology available in the colonised space shapes the landscape of NGOs' accountability to beneficiaries and funders during the COVID-19 lockdown. The context of the study is the Gaza Strip, a socially and politically vulnerable geographic location with heavy reliance on support from NGOs. We conducted 20 semi-structured interviews with Palestinian and international NGOs during and after the lockdown to enhance our understanding of the challenges and opportunities they faced in adopting technology to discharge accountability during a major disruptive event. Three main themes emerged from our analysis. First, the biggest challenge is downward accountability to the most deprived and marginalised beneficiaries due to implications of the digital occupation which caused digital unaffordability and illiteracy, voluntary digital resistance to counter suspicion of surveillance, and female digital disempowerment. Second, upward accountability was less problematic as funders accepted ad hoc technology-based accountability practices, but some concerns remained over the efficacy and sustainability of digital adoption in the long run. Finally, the pandemic granted NGOs new opportunities in utilising technology, which successfully changed their process and practice of accountability. 4



In what jobs is business management used?

Business management is used in a wide range of jobs and industries. Some common roles that require business management skills include:

1. Business Manager

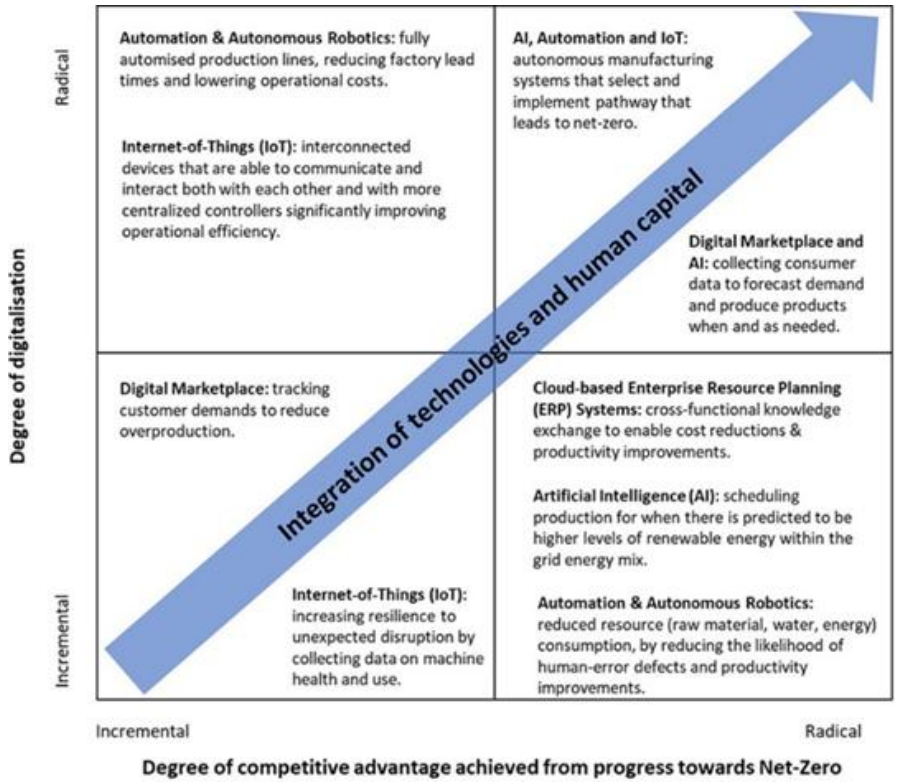
2. Operations Manager

3. Project Manager
4. Sales Manager
5. Marketing Manager
6. Human Resources Manager
7. Financial Manager
8. Entrepreneur/Small Business Owner
9. Supply Chain Manager
10. Retail Store Manager

These are just a few examples, but business management skills are valuable in almost any job that involves overseeing operations, managing resources, and driving success and growth within an organization.

What is the future of business management?

The future of business management is likely to be increasingly focused on data-driven decision making, the integration of artificial intelligence and automation into daily operations, remote team management, sustainability and social responsibility initiatives, and the ability to quickly adapt to changing market conditions. As technology continues to evolve, business managers will need to stay up-to-date with the latest tools and trends in order to remain competitive and drive innovation within their organizations. Additionally, there will be a growing emphasis on diversity and inclusion the need for strong leadership skills to inspire and motivate teams in an ever-changing global economy.



What are the benefits of business management in the industry?

Business management in the industry offers numerous benefits, including improved efficiency and productivity, better decision-making processes, increased profitability, and enhanced strategic planning. It also helps in creating a cohesive and motivated work environment, fostering innovation and creativity, and ensuring compliance with regulations and ethical standards. Additionally, effective business management can lead to increased customer satisfaction, improved reputation and brand image, and higher employee retention rates. Overall, business management plays a crucial role in driving success and growth in the industry.

What are the disadvantages of business management?

Some potential disadvantages of business management include the risk of making poor decisions that could negatively impact the organization, the potential for conflicts and power struggles among team members, and the challenges of balancing short-term goals with long-term objectives. Additionally, ineffective business management can lead to decreased productivity, poor employee morale, and ultimately, financial losses for the company. It is important for businesses to continuously evaluate and improve their management practices to mitigate these risks and ensure sustainable success.

Can artificial intelligence be used to improve business management in various industries?

Yes, artificial intelligence can be incredibly beneficial in improving business management across a variety of industries. Here are some ways AI can enhance business management:

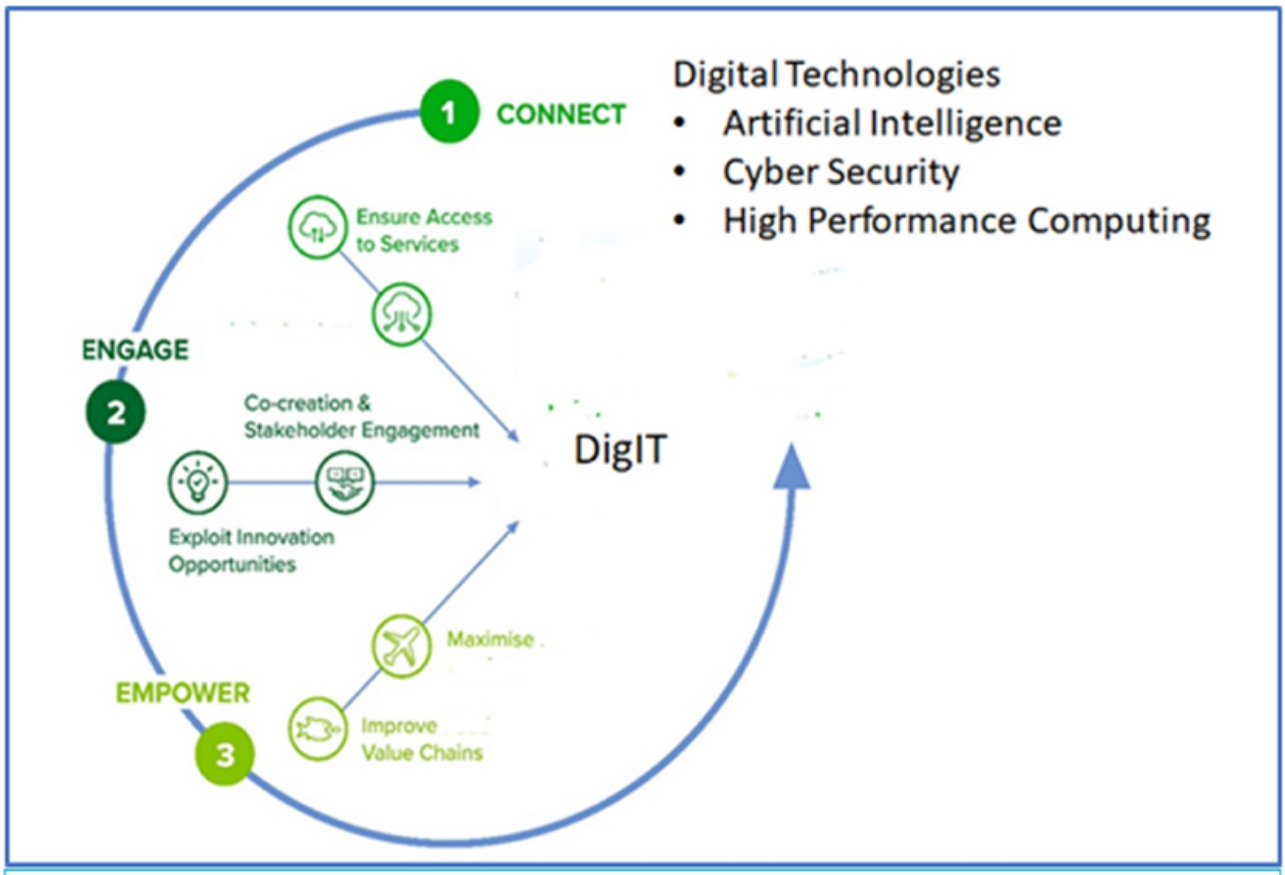
1. Data analysis: AI can process and analyze large volumes of data quickly and accurately. This can help businesses gain valuable insights into their operations, customers, and market trends, enabling AI-powered tools can automate repetitive tasks such as data entry, inventory management, and customer communication. This frees up employees to focus on more strategic tasks, increasing productivity and efficiency.

2. Customer service: AI-powered chatbots and virtual assistants can provide 24/7 customer support, answer queries, and resolve issues in real-time. This improves customer satisfaction and loyalty.

3. Supply chain optimization: AI algorithms can analyze supply chain data to identify inefficiencies, predict demand fluctuations, and optimize inventory levels. This helps businesses reduce costs, improve delivery times, and enhance overall supply chain performance.

4. Predictive analytics: AI can analyze historical data to predict future trends and outcomes. This enables businesses to anticipate market changes, customer proactive decision-making.

By harnessing the power of artificial intelligence, businesses can streamline their operations, enhance decision-making, and drive innovation across various industries. It is essential for organizations to embrace AI technology to stay competitive in today's rapidly evolving business landscape.



Connect – providing service portal and road mapping approach (Innovation Platform)

Engage – accelerate co-creation and innovation by providing digital experimental spaces and data spaces aligned to using quintuple helix framework and the open innovation community approach

Empower – exploit business opportunities and access to technology and innovation leadership by providing tailored access to the wider European innovation, funding and business ecosystem.

CONCLUSION

In conclusion, integrating AI into business management practices can lead to improved efficiency, better decision-making, and increased innovation. By leveraging AI technology, organizations can gain a competitive edge and adapt quickly to changing market conditions. It is crucial for businesses to embrace AI as a long-term success in today's dynamic business environment.

REFERENCES

1. Abrahamson, Z. (2020). 5 challenges to INGOs' funding during and beyond Covid-19. available on the internet at https://www.bond.org.uk/news/2020/10/5- challenges-to-ingos-funding-during-and-beyond-covid-19/. (Accessed 15 March 2022).

2. Agostino, D., Arnaboldi, M., &Lema, M. D. (2021). New development: COVID-19 as an accelerator of digital transformation in public service delivery. Public Money & Management, 41(1), 69–72.

3. Agyemang, G., O'Dwyer, B., &Unerman, J. (2019). NGO accountability: Retrospective and prospective academic contributions. Accounting. Auditing & Accountability Journal, 32(2), 2353–2366.

4. American Planning Association, 2018. APA Policy Principles for Autonomous Vehicles. https://planning-org-uploaded-media.s3.amazonaws.com/document/APA-Polic y-Principles-Autonomous-Vehicles.pdf. Anderson, J.M., Kalra, N., Stanley, K.D., Sorensen, P., Samaras, C., Oluwatola, T.A., 2016. Autonomous Vehicle Technology: A Guide for Policymakers The RAND Corporation. Santa Monica, California. Azad, M., Hoseinzadeh, N., Brakewood, C., Cherry, C.R., Han, L.D., 2019. Fully autonomous buses: a literature review and future research directions. J. Adv. Transp. 2019, 4603548.

5. Arab Centre for Social Media Advancement. (2017). Internet freedoms in Palestine: Mapping of digital rights violations and threats. available on the internet at https://7amleh.org/wp-content/uploads/2018/01/7amleh_Internet_Freedoms_in_Palestine.pdf. (Accessed 1 February 2023).

6. Arnaboldi, M., Busco, C., &Cuganesan, S. (2017). Accounting, accountability, social media and big data: Revolution or hype? Accounting. Auditing & Accountability Journal, 30(4), 762–776.

7. Barnes, P., Turkel, E., 2017. Autonomous Vehicles in Delaware: Analyzing the Impact and Readiness for the First State. Institute for Public Administration, University of Delaware.

8. California Multi-Agency Workgroup on AV Deployment for Healthy and Sustainable Communities, 2018. Automated Vehicle Principles for Healthy and Sustainable Communities. https://opr.ca.gov/docs/20181115-California_Automated_Vehicle_Principles_for_Healthy_and_Sustainable_Communities.pdf.

9. Center for Global Policy Solutions, 2017. Stick Shift: Autonomous Vehicles, Driving Jobs, and the Future of Work. http://globalpolicysolutions.org/report/stick-shift-autonom ous-vehicles-driving-jobs-and-the-future-of-work/, Washington, D.C.

10. Centralina Council of Governments, 2019. Preparing the Greater Charlotte Region for: Connected & Autonomous Vehicles. https://centralina.org/wp-content/up loads/2017/04/CAV_Preparation-FINAL.pdf.

11. Chase, R., 2014. Will a World of Driverless Cars Be Heaven or Hell?, Bloomberg CityLab. Chatman, D.G., Moran, M.E., 2019. Insights on Autonomous Vehicle Policy from Early Adopter Cities and Regions. Policy Brief. Insitute of Transportation Studies, University of California.

12. City of Portland Oregon, undated. Connected and Automated Vehicles Policies. https://www.portlandoregon.gov/transportation/article/643814. City of Tempe Arizona, 2018. Autonomous Vehicles in Tempe: Opportunities and Risks. https://ifis.asu.edu/sites/default/files/tempe_av_report_-_final.pdf.

13. Clark, J., Curl, A., 2016. Bicycle and Car Share Schemes as Inclusive Modes of Travel? A Socio-Spatial Analysis in Glasgow, UK. Social Inclusion 4, 83–99. Claypool, H., Bin-Nun, A., Gerlach, J., 2017. Self-Driving Cars: The Impact on People with Disabilities. Ruderman

Family Foundation. Cohen, S., Shirazi, S., 2017. Can We Advance Social Equity with Shared, Autonomous and Electric Vehicles? Policy Brief. Institute of Transportation Studies, University of California, Davis.

14. Development of an intelligent information system for financial analysis depend on supervised machine learning algorithms

15. Digital postcolonialism and NGO accountability during COVID-19: Evidence from the Gaza Strip

16. Digital transformation and the circular economy: Creating a competitive advantage from the transition towards Net Zero Manufacturing

17. Fact Sheet for health care providers emergency Use authorization (EUA) of REGEN-COV. Available at: https://www.fda.gov/media/145612/ download. Accessed July 7, 2022.

18. Guo Y-R, Cao Q-D, Hong Z-S, et al. The origin, transmission and clinical therapies on coronavirus disease 2019 (covid-19) outbreak- an update on the status. Mil Med Res. Avaliable at: https://www.ncbi.nlm.nih.gov/ pmc/articles/PMC7068984/. Accessed July 7, 2022.

19. Heavy metals in cosmetics and tattoos: a review of historical background, health impact, and regulatory limits

20. How firms can create delightful customer experience? Contrasting roles of future reward uncertainty

21. Jorgensen SCJ, Kebriaei R, Dresser LD. Remdesivir: review of pharmacology, pre-clinical data, and emerging clinical experience for COVID-19. Pharmacotherapy. Available at: https://www.ncbi.nlm.nih.gov/pmc/ articles/PMC7283864/. Accessed July 11, 2022.

22. Kirtipal N, Bharadwaj S, Kang SG. From SARS to SARS-COV-2, insights on structure, pathogenicity and immunity aspects of pandemic human coronaviruses. Infect Genet Evol. Avaliable at: https://www.ncbi.nlm.nih. gov/pmc/articles/PMC7425554/; 2020. Accessed July 7, 2022.

23. Predicting climate factors based on big data analytics based agricultural disaster management

24. Tennessee Department of Health. August 17, 2021. Monoclonal antibody statement. Available at: https://www.tn.gov/health/cedep/ncov.html. Accessed July 7, 2022.

25. The role of digital technologies in supporting and improving fishery and aquaculture across the supply chain – Quo Vadis?