Decision Intelligence in Business: A Tool for Quick and Accurate Marketing Analysis

Upendar Rao Thaduri

ACE Developer, iMINDS Technology Systems, Inc., Pittsburgh, PA 15243, USA

E-mail for correspondence: upendarrthaduri@gmail.com

ABSTRACT

The term "artificial intelligence" (AI) refers to a technology recently becoming a disruptive innovation with far-reaching ramifications for many industries, including business. AI has revolutionized decision-making processes in recent years by providing organizations with enhanced analytical capabilities. These capabilities allow organizations to extract essential insights from large volumes of data, enabling AI to modernize decision-making processes. The implementation of AI in business could result in the industry being forced to rely on marketing strategies that are more efficient, less expensive, and more accurate. An increase in audience reaction and constructing a powerful online brand capable of competing with others are possibilities for an entrepreneur who implements AI-based marketing methods in their company. In addition to marketing, it can completely revamp an existing firm by introducing novel ideas. In addition, it offers answers to complex challenges, which contributes to the significant expansion of the firm. The study's primary objective is to evaluate how artificial intelligence (AI) and decision-making are utilized in business. Additionally, the researchers attempted to investigate how AI is being used to improve decision-making processes and how it is transforming business models. According to the study, applying artificial intelligence in business decisions can have a big transformative effect, providing significant efficiency, accuracy, and innovation benefits. Systems that AI powers allow businesses to process and analyze vast amounts of data rapidly, making decisions more quickly and with greater insight.

INTRODUCTION

Together with other revolutionary technological developments, such as robotics, artificial intelligence (AI) is reshaping every essential facet of organizations' operations. The term "artificial intelligence" (AI) refers to information produced by humans with the assistance of machines and then structured and organized. Artificial intelligence is developed utilizing methods inspired by human understanding, such as learning, reasoning, and self-healing. Artificial intelligence is going to revolutionize marketing in the future. Artificial intelligence makes it feasible to arrive at granular conclusions while simultaneously economizing a significant amount of both time and resources. AI systems can perform several tasks, including data collection, forecasting, and trend analysis. Artificial intelligence is the process of integrating numerous business techniques, systems, and day-to-day activities, as well as cloud technology, network devices, robotics, computers, and the generation of digital content (Gutlapalli, 2017a).

Regarding technology, artificial intelligence is the process of integrating the cloud. The use of computers with artificial intelligence will blossom in the past; in the present, the growth and development of artificial intelligence should be incorporated into future marketing activities. Software based on artificial intelligence is being utilized daily by enterprises to facilitate the streamlining of processes, the reduction of costs, the acceleration of turnaround times, and the enhancement of productivity (Gutlapalli, 2017b). Businesses that have already switched to advertising software powered by AI will have a distinct competitive advantage when the next significant technological advance is made. This pace of technological advancement is unprecedented (Buttigieg et al., 2017).

Artificial intelligence learning can be divided into two primary categories: deep learning and machine learning. How robots learn is very similar to how humans learn. Through machine learning, AI-based experience, or the collection of empirical data through skills existing in the environment, one can create and store knowledge; with each new cycle of learning, fixing the problem becomes more efficient and effective. The concept of machine learning, widely considered artificial intelligence, comes up quite frequently in search engines' results. Therefore, machine learning aims to recognize patterns around which algorithms are constructed. Deep learning is similar to machine learning, with the critical difference being that the AI in question completes neural networks as it acquires knowledge. In addition, for deep learning to occur, human interaction is required because it is from humans that AI systems may learn how to solve issues using examples. This way of learning is used in multi-layered learning and is widely used in building complex systems to solve complex issues.

However, as businesses increasingly utilize AI in their decision-making processes, they are finding specific problems. Bec is necessary because we rely on enormous amounts of sensitive information, and there are growing worries over data privacy and security. Ethical considerations, such as using artificial intelligence responsibly and transparently, must be adequately controlled to guarantee that decision-making will be based on societal norms. Additionally, AI's impact on the workforce needs to be considered. Because AI systems automate specific jobs, this may result in a shift in employment responsibilities and the requirement for programs to either reskill or upskill employees (Chen et al., 2012).

The use of artificial intelligence in making business decisions has the potential to transform the operational and strategic processes of businesses completely. Artificial intelligence enables businesses to harness the power of data and make educated decisions in a dynamic and competitive environment by improving efficiency, accuracy, and innovation in business processes. However, there is a need for cautious navigation regarding the responsible and ethical use of AI, data privacy, security, and the influence on the workforce (Gutlapalli, 2017c). The decision-making landscape is about to undergo substantial modifications, shaping companies' future across various industries. These transformations will be brought about as businesses continue to embrace AI technologies.

BUSINESS INTELLIGENCE SYSTEMS AND APPLICATIONS

Increasing research investigations show that many firms globally have embraced and used business intelligence systems in recent decades. Many companies use BI to support operations. Data is collected, analyzed, and converted into information or knowledge, then shown as reports or dashboards in a database to aid business decision-making. The study proposed that business intelligence should consider customer pleasure, cost savings, and time efficiency. This study found that well-developed BI software could improve company decision-making. In addition, semi-structured interviews have been used to conduct qualitative BI surveys. Twenty Polish companies that have used and improved business intelligence were interviewed. Telecommunications, consultancy, finance, insurance, and marketing organizations were represented. BI may enhance business operations and decision-making, they concluded (Gutlapalli, 2016b).

Multi-functional businesses often need help with database management and complicated data analysis. Different query types were used to compare relational database systems (MySQL and MariaDB) and graph-based databases (Neo4j). Their findings demonstrated that data and query complexity affect database performance. Relational model databases were more efficient as queries became more sophisticated, while graph databases were more efficient for simple queries. Ontologies define database structure. The work shows that ontology applications help users choose and develop a database management system for a specific context or data. Cloud Computing (CC) utilization increased due to online storage, high scalability, and information availability. Many companies have moved to the cloud since CC can be done anywhere with an internet connection, lowering operating costs. Data access and protection must be correctly designed for security and privacy. Classifying and prioritizing business intelligence concepts and techniques into management, technique, and system-enabling approaches was done by reviewing 85 publications. The research initially focused on managerial techniques, but technical and enabling approaches became vital as it progressed (Ballamudi, 2019a). Developers should also examine multidimensional data to improve enterprise databases and business intelligence decision support systems. A locally owned Indonesian ride-sharing platform was studied. Platform expansion demands extensive data and algorithm oversight to match clients and service providers due to rapid technological change. This study examined massive database administration, work assignments, performance, and a customer-service provider rating system deployments.

The organizational, process and technical success elements were examined. Their studies show that the organizational element is crucial to BI system deployment success. We design technologies that support the size and impact of business data concerns. They also illustrated how firms use BI to make decisions despite analyzing more excellent datasets. This book presents a practical framework for enterprises to attain their business

intelligence goals of accurate and timely market insight. According to this study, business intelligence systems improve strategic decision-making credibility and marketing understanding. It must be designed correctly and according to the organization's processes to boost efficiency and decision-making speed (Ballamudi, 2019b). Business intelligence improves data quality, decision-making speed, and work efficiency. Uses qualitative research to deploy BI in retail (Gutlapalli, 2016a). The benefits of BI include faster and more accurate reports, better decision-making, better customer service, and higher revenue.

BUSINESS INTELLIGENCE DASHBOARDS

Many firms utilize interactive business intelligence dashboards to manage, monitor, analyze, and present data and performance. By offering anthems, users manipulate data and make smarter decisions. Data are typ by providing an overview of the business's health presented visually using pie graphs, line graphs, scatterplots, etc. The dashboard design should prioritize user demands by allowing many analytical viewpoints. Many countries' businesses currently use business intelligence dashboards (Gutlapalli et al., 2019). Due to weak road safety policies, Thailand has one of the highest road accident death rates due to the inefficient use of a business intelligence system to visualize and analyze spatial and temporal accident report data. After collecting data with Talend Data Integration, it is imported into a MySQL database and visualized using Tableau. This study found that integrating, processing, and graphically displaying accident data to determine cause enhanced data management. The system enables the department to make strategic choices and create a contingency plan to improve accident scenarios (Sheta et al., 2015).

The emergency room dashboard trial was intended to meet patient expectations for better care and enhance inpatient treatment by presenting flow status and vital patient information to improve symptom monitoring and patient care. Royal Commission Hospital in Jubail, Saudi Arabia, conducted a dashboard user satisfaction survey. Demographics, dashboard frequency, and satisfaction were asked in the questionnaire. The research found that emergency department dashboard visualizations are often used with satisfaction.

Renewable energy is the world's fastest-growing energy source due to population increase, industrialization, and energy demand. This study uses data visualizations to assess renewable energy's environmental and economic efficiency. Based on the dashboard and balanced scorecard, this article evaluates the performance of two data visualization technologies: user engagement and usability (Lal et al., 2018). Their case studies show that their tools improve communication and simplify renewable energy development decision-making. BI

helped XYZ Store management prepare reports. Dashboards and graphics display data. This BI application generates a sales dashboard and eleven graphic visualizations for product, employee, and daily transaction information management as needed by managers.

BUSINESS INTELLIGENCE AND PRINCIPLES OF MARKETING

Only a few studies have been done on how business intelligence is used in the automotive industry. For instance, the research presented investigated the application of BI systems in the automobile industry and automotive businesses. They collected data by connecting various information linked to the car, data exchange between all sorts of vehicles, and insights for designing and production to obtain access to data and analyze client needs to make successful judgments regarding product development. This allowed them to make effective product development decisions. The w of was able to tackle the problem of monthly sales forecasting in the automotive industry in India by operations research and using two forecasting methods as input for the Adaptive Neuro-Fuzzy Inference System. These methods were moving average and exponential smoothing. Their findings demonstrate that accurate sales forecasting can assist various business systems (Stalidis et al., 2015).

Despite this, more research needs to be done on the implementation of business intelligence in the sector of the automobile components industry (let alone the brake pads). In addition to the study work we have presented, we have found that a BI system was recently implemented in a multinational tire company to analyze and create a mobile business intelligence system of productivity measurement and assessment during the development of production lines (Ballamudi, 2016).

Brake pads, like any other consumable, must be replaced regularly because of normal wear and tear from driving a vehicle over time. The product life cycle is a handy tool that assists management teams in determining and supporting strategic ways regarding advertising schedules, price points, growth into new product markets, and other similar endeavors (Desamsetti & Mandapuram, 2017). A lifecycle marketing plan will be developed for the organization to use as a guide to improve its capabilities for new product development. An awareness of the interrelationships between organizational settings, product lifecycles, and ecological marketing is necessary to analyze lifecycle marketing (Desamsetti, 2018). The analysis findings allow internal managers to effectively plan and carry out the activities associated with marketing strategies inside their organizational environments (Ballamudi, 2019c). In addition, given that business providers are forced to compete with one another to remain successful in the sector, these suppliers ought to

make an effort to comprehend the requirements and preferences of their clients as a method of retaining clients for the long term. Within the context of the hijab fashion sector, the research conducted investigates the connections between marketing mix, customer loyalty, and consumer happiness (Desamsetti & Lal, 2019). Keeping a healthy relationship with one's clientele is essential to preserving one's position as a competitive actor in the business system.

ARTIFICIAL INTELLIGENCE IN BUSINESS DECISION-MAKING

AI's growing importance in digital life is seen in the advertising and marketing industries. AI is revolutionizing various industries, from Siri to Tessa's self-driving car to Google AI's ability to master video games in hours. AI can be used for numerous goals, including recognizing data trends to reduce market risks, improving customer service with virtual assistants, and analyzing millions of documents to uncover compliance problems. Businesses can only now predict the opportunities that robotics and AI may bring to the future of business. Businesses can eliminate errors with AI's consistent and rule-based programming (Deming et al., 2018). The system's durability, improvements, and ability to record procedures contribute to positive economic prospects. Robotics, computer vision, speech recognition, machine learning, and natural language processing are utilized for AI applications. Several commercial opportunities arise from this technology (Desamsetti, 2016a).

Effective decision-making is essential for corporate management. Data mining, big data, and large files are crucial in commercial decision-making. Data security is a vital responsibility. The hypothesis relies on these phrases and executive replacements. Humans and AI are close. One uses historical facts for decision-making, while the other uses experience. Without data, AI cannot make decisions (Kumar & Ravi, 2016).

Artificial intelligence modeling can match client requests and bridge the gap. AI enables precise decision-making and generates significant time and cost savings. AI systems provide for data collection, forecasting, and trend analysis. AI can also anticipate client lifetime value. Humans can conclude that AI reduces system bounce rates. AI analyzes data through data mining, also known as opinion mining (Chen et al., 2019).

Web searches for views and sentiment are enabled through opinion mining. Marketers can gain insight into their target markets and products through this method. AI utilizes specific websites, internet pages, and search engines. We can make judgments faster and easier using AI. AI and corporate decision-making in dynamic contexts. The authors conducted a content analysis of peer-reviewed articles to assess existing research on connecting AI with business decision-making in shifting environments (Bodepudi et al., 2019). The study presents a conceptual framework that explores AI's use in decision-making in dynamic contexts, followed by obstacles, prerequisites, and consequences.

Duan's work aimed to demonstrate AI's decision-making capabilities. The study found that AI can make decisions to complement or replace humans in areas such as AI's engagement and integration (Thaduri, 2019). This research explores the effectiveness of resurrecting AI-based dynamic frameworks. Additionally, it assists individuals in managing data frameworks. The research briefly outlines AI's history, starting with international journal articles (IJIM). The essay covers AI in general and its main concerns. We also examined the necessary cooperation and coordination to replace or supplement human representatives. The paper explores AI utilization in significant data dynamics, providing twelve recommendations for professionals and hypothesizing events such as AI invention and execution with human involvement (Desamsetti, 2016b).

RISK FACTORS IN AI DECISION MAKING

The ethical hazards of AI decision-making are comprised of ethical and moral difficulties connected to human beings and society that come from errors caused by data or algorithms, and the adverse repercussions of these risks must be considered during the development of artificial intelligence (Thaduri, 2018). Some examples of the ethical risks associated with AI decision-making include having to choose between the lives of pedestrians and drivers in the event of danger, infringing on the privacy rights of people involved in "human flesh searching" based on big data technology, and "intelligent courts" that lack human feelings and making incorrect decisions. Because tacit information, including conventions, emotions, and beliefs, is complex to fully digitize and structure, artificial intelligence (AI) frequently needs help dealing with complicated decision-making scenarios. At the same time, the question of whether future intelligent decision-making in the era of powerful artificial intelligence will transcend or even replace human decisions is the "moral dilemma" of ethical risk. Concerns over AI's decision-making abilities are growing because it is now impossible to forecast whether or not AI will strip humans of their control or subject them to unforeseeable social consequences (Karimova, 2016).

2016, the United States established a new National Science and Technology Council (NSTC) Subcommittee on Machine Learning and Artificial Intelligence. It introduced the National Strategic Plan for AI Research and Development. One of the seven strategies in the National Strategic Plan for AI Research and Development is understanding and addressing AI's ethical, legal, and

social implications. This strategy is one way the United States attempts to regulate the direction that AI will take. The European Commission officially launched the White Paper on Artificial Intelligence, A European Pathway to Excellence and Trust, in Brussels in 2016. In the document, the European Commission stated that the development of AI should be human-centered, sustainable, and under ethical control while respecting people's fundamental rights and avoiding the risks associated with AI decisions (Thaduri, 2017). The European Commission also issued a proposal for an Artificial Intelligence Act. This act is intended to address the risks associated with AI, build a unified and trusted AI market in the EU, and defend the fundamental rights of EU people. Japan and South Korea had drafted necessary documents for robots as early as 2007, recommending that people and other such things should manage machines (Mandapuram, 2016). Additionally, the United Kingdom and Japan have established ethics committees and data ethics institutes focused on AI, gradually bringing the ethical challenges associated with AI into light (Dekkati & Thaduri, 2017).

China's State Council noted in 2016 in the Development Plan for a New Generation of Artificial Intelligence that AI is rapidly developing and that strict attention should be paid to its risk problems to ensure its safe and healthy development (Mandapuram et al., 2018). This observation was included in the Development Plan for a New Generation of Artificial Intelligence (Dekkati et al., 2016). While chairing a collective study on the current status and trends of AI development held in 2017 by the Political Bureau of the CPC Central Committee, General Secretary Xi Jinping emphasized that the study and prevention of potential risks in AI development are essential to the healthy development of AI. The new-generation artificial intelligence development plan in China formed a new-generation artificial intelligence governance professional committee in 2017. This committee has full responsibility for AI, including studying and producing ethical codes and normative governance activities (Thodupunori & Gutlapalli, 2018). The publications referred to above that concern artificial intelligence (AI) and the numerous committees reveal that AI decision-making has garnered significant attention across the globe, and the investigation of the ethical hazards posed by AI is essential to the progression of both humanity and AI technology (Maknickiene & Maknickas, 2013).

The decision-making process used by artificial intelligence is founded on a limited amount of data, relevant algorithms, and other input conditions to produce the most effective potential approach (Ballamudi & Desamsetti, 2017). However, technology in and of itself comes with uncertainty, and when combined with the incomplete nature of the data, decisions that lack human emotions within them are susceptible to decision errors. They may also broadly alter even human decisions, resulting in ethical risks such as privacy breaches, risks to

human life, and undermining social justice; these uncertainties are an essential source of ethical risks. Clarifying the ethical risks caused by the uncertainty of technology and the uncertainty of human complex emotional decision-making is an integral part of studying the ethical risks associated with intelligent decision-making using artificial intelligence. This is done to effectively prevent and protect against these risks and enable smart decision-making to develop in a strong direction. Two primary factors contribute to the possibility of unethical outcomes in AI decision-making: technological unpredictability and the limited rationality of humans. The most significant contributors to technical risk include, from a technological point of view, the loss of control over technology, improper use, and abusive use of technology. Mainly, the intelligent algorithms, program design, and other technologies present throughout the decision-making process that AI carries out are distinct sources of ethical hazards. Since the programming and data importation samples in intelligent decision-making involve human decisions, humans are the primary source of risk creation (Dekkati et al., 2019). The ethical risks under AI decision-making originate from the complex interactions between technology, humans, society, and nature. This is viewed from the perspective of human-limited rationality (Mandapuram, 2017b).

In light of the potential ethical dangers that artificial intelligence may present, many academics have advocated for implementing risk governance, primarily through top-down and bottom-up governance methods (Lal & Ballamudi, 2017). The top-down strategy entails establishing a framework containing ethical and moral awareness and ethical principles to bind robots to make decisions and operate within the confines of this framework. Some examples of this type of material are the moral calculus of Amoff, the three laws of robotics, Kant's categorical imperative, and general honest philosophical content. Regarding governance measures, risks in the decision-making process can be avoided by developing a list of principles for new technologies matching ethical risk governance framework rules and governance systems (Mandapuram & Hosen, 2018). This can help prevent risks in the decision-making process. However, it is impossible to generalize human emotions because of their complexity and the fact that they are impacted by a wide range of values, social norms, and other factors that cannot be captured by a set of rules alone. This is true of both ethics and rules. Because of this, it is incredibly challenging to create intelligent decision-making systems based on a top-down methodology (Mandapuram, 2017a). Taking a bottom-up approach to governance entails a computer continuously imitating the actions and feelings of a person, much like how machine learning works. This allows the machine to construct an ethical decision-making system comparable to human thought processes. The most well-known example is the technology behind autonomous vehicles; however, faulty knowledge of the

rules by humans themselves can contribute to the development of poor habits in machines, which can generate hazards and even make it harder to make decisions (Lal, 2015). On a technical and moral level, neither the top-down nor the bottom-up approach to governance can make computers think like humans and have ethical consciousness. Neither approach comes from the bottom up. Studies have shown that people are not opposed to implementing new technologies and that the primary reason for people's fear of AI decision-making is a distrust of government. Because of this, it is essential to strengthen the potential ethical review and legal implications of the AI decision-making process and to govern the ethical risks associated with AI decision-making (Cavalcante, 2016).

The development's general development to a more mature state and its intelligent decision-making have been applied to many facets of human existence, including medicine, ecology, and social management. However, because AI is a technology, its intelligent decision-making will invariably come with accompanying ethical hazards (Lal, 2015). However, only a small number of research have been able to describe these dangers and the risk-creation mechanisms of AI ethical decision-making and study the relationships between the risks. In this investigation, we employ the qualitative research method of rooted theory to discover and categorize the risk elements associated with AI ethical decision-making. These risk factors include risk sources as well as risk outcomes. We explore the formation mechanism of AI ethical risks by constructing a conceptual model and a feedback model of risk factors through system dynamics (Thaduri et al., 2016). We then analyze the causes of risks from multiple perspectives and in an all-around manner to provide practical assistance to ethical decision-making and reduce the adverse effects of AI ethics.

CONCLUSION

The use of artificial intelligence is revolutionizing how organizations approach the decision-making process. Businesses can improve their decision-making by utilizing the capacity of AI systems to examine massive amounts of data and offer forecasts and suggestions based on that data. In the end, artificial intelligence has the potential to revolutionize the decision-making process within corporations by providing speedier and more accurate insights that may direct both operational and strategic choices. For businesses to maintain their customers' confidence and reduce the likelihood of unanticipated consequences, AI must be used responsibly and transparently. The application of artificial intelligence (AI) in decision-making by businesses and individual customers is unquestionably the way of the future. When choosing a company, it provides various possibilities and a straightforward method. AI is a brilliant piece of apparatus. Data mining and analyzing large amounts of

data help it make decisions. According to the study's findings, artificial intelligence will not take over human jobs; instead, it is a dynamic tool that may help people make better decisions.

REFERENCES

Ballamudi, V. K. R. (2016). Utilization of Machine Learning in a Responsible Manner in the Healthcare Sector. *Malaysian Journal of Medical and Biological Research*, *3*(2), 117-122. https://mjmbr.my/index.php/mjmbr/article/view/677

Ballamudi, V. K. R. (2019a). Artificial Intelligence: Implication on Management. *Global Disclosure of Economics and Business*, *8*(2), 105-118. https://doi.org/10.18034/gdeb.v8i2.540

Ballamudi, V. K. R. (2019b). Road Accident Analysis and Prediction using Machine Learning Algorithmic Approaches. *Asian Journal of Humanity, Art and Literature*, *6*(2), 185-192. https://doi.org/10.18034/ajhal.v6i2.529

Ballamudi, V. K. R. (2019c). Hybrid Automata: An Algorithmic Approach Behavioral Hybrid Systems. *Asia Pacific Journal of Energy and Environment*, *6*(2), 83-90. https://doi.org/10.18034/apjee.v6i2.541

Ballamudi, V. K. R., & Desamsetti, H. (2017). Security and Privacy in Cloud Computing: Challenges and Opportunities. *American Journal of Trade and Policy*, *4*(3), 129–136. https://doi.org/10.18034/ajtp.v4i3.667

Bodepudi, A., Reddy, M., Gutlapalli, S. S., & Mandapuram, M. (2019). Voice Recognition Systems in the Cloud Networks: Has It Reached Its Full Potential?. *Asian Journal of Applied Science and Engineering*, *8*(1), 51–60. https://doi.org/10.18034/ajase.v8i1.12

Buttigieg, S. C., Pace, A., Rathert, C. (2017). Hospital Performance Dashboards: A Literature Review, *Journal of Health Organization and Management*, *31*(3), 385-406. https://doi.org/10.1108/JHOM-04-2017-0088

Cavalcante, R., Brasileiro, R. C., Souza, V. L. F., Nobrega, J. P., Oliveira, A. L. I. (2016). Computational Intelligence and Financial Markets: A Survey and Future Directions. *Expert Systems with Applications*, *55*, 194–211. https://doi.org/10.1016/j.eswa.2016.02.006

Chen, H., Chiang, R. H. L., Storey, V. C. (2012). Business Intelligence and Analytics: From Big Data to Big Impact. *MIS Quarterly*, *36*(4), 1165–1188. https://doi.org/10.2307/41703503

Chen, S., Thaduri, U. R., & Ballamudi, V. K. R. (2019). Front-End Development in React: An Overview. *Engineering International*, 7(2), 117–126. https://doi.org/10.18034/ei.v7i2.662

Dekkati, S., & Thaduri, U. R. (2017). Innovative Method for the Prediction of Software Defects Based on Class Imbalance Datasets. *Technology & Management Review*, 2, 1–5. Retrieved from https://upright.pub/index.php/tmr/article/view/78

Dekkati, S., Lal, K., & Desamsetti, H. (2019). React Native for Android: Cross-Platform Mobile Application Development. *Global Disclosure of Economics and Business*, 8(2), 153-164. https://doi.org/10.18034/gdeb.v8i2.696

Dekkati, S., Thaduri, U. R., & Lal, K. (2016). Business Value of Digitization: Curse or Blessing?. *Global Disclosure of Economics and Business*, 5(2), 133-138. https://doi.org/10.18034/gdeb.v5i2.702

Deming, C., Dekkati, S., & Desamsetti, H. (2018). Exploratory Data Analysis and Visualization for Business Analytics. *Asian Journal of Applied Science and Engineering*, 7(1), 93–100. https://doi.org/10.18034/ajase.v7i1.53

Desamsetti, H. (2016a). A Fused Homomorphic Encryption Technique to Increase Secure Data Storage in Cloud Based Systems. *The International Journal of Science & Technoledge*, 4(10), 151-155.

Desamsetti, H. (2016b). Issues with the Cloud Computing Technology. *International Research Journal of Engineering and Technology (IRJET), 3*(5), 321-323.

Desamsetti, H. (2018). Internet of Things (IoT) Technology for Use as Part of the Development of Smart Home Systems. *International Journal of Reciprocal Symmetry and Theoretical Physics*, 5, 14–21. https://upright.pub/index.php/ijrstp/article/view/89

Desamsetti, H., & Lal, K. (2019). Being a Realistic Master: Creating Props and Environments Design for AAA Games. *Asian Journal of Humanity, Art and Literature*, 6(2), 193-202. https://doi.org/10.18034/ajhal.v6i2.701

Desamsetti, H., & Mandapuram, M. (2017). A Review of Meta-Model Designed for the Model-Based Testing Technique. *Engineering International*, 5(2), 107–110. https://doi.org/10.18034/ei.v5i2.661

Gutlapalli, S. S. (2016a). An Examination of Nanotechnology's Role as an Integral Part of Electronics. *ABC Research Alert*, 4(3), 21–27. https://doi.org/10.18034/ra.v4i3.651

Gutlapalli, S. S. (2016b). Commercial Applications of Blockchain and Distributed Ledger Technology. *Engineering International*, 4(2), 89–94. https://doi.org/10.18034/ei.v4i2.653

Gutlapalli, S. S. (2017a). Analysis of Multimodal Data Using Deep Learning and Machine Learning. *Asian Journal of Humanity, Art and Literature*, 4(2), 171–176. https://doi.org/10.18034/ajhal.v4i2.658

Gutlapalli, S. S. (2017b). The Role of Deep Learning in the Fourth Industrial Revolution: A Digital Transformation Approach. *Asian Accounting and Auditing Advancement, 8*(1), 52–56. Retrieved from https://4ajournal.com/article/view/77

Gutlapalli, S. S. (2017c). An Early Cautionary Scan of the Security Risks of the Internet of Things. *Asian Journal of Applied Science and Engineering*, 6, 163–168. Retrieved from https://ajase.net/article/view/14

Gutlapalli, S. S., Mandapuram, M., Reddy, M., & Bodepudi, A. (2019). Evaluation of Hospital Information Systems (HIS) in terms of their Suitability for Tasks. *Malaysian Journal of Medical and Biological Research*, 6(2), 143–150. https://mjmbr.my/index.php/mjmbr/article/view/661

Karimova, F. (2016). A survey of e-commerce recommender systems. *European Scientific Journal, 12*(34), 75–89. https://doi.org/10.19044/esj.2016.v12n34p75

Kumar, S. B., Ravi, V. (2016). A Survey of the Applications of Text Mining in Financial Domain. *Knowledge-Based Systems, 114*, 128–147. https://doi.org/10.1016/j.knosys.2016.10.003

Lal, K. (2015). How Does Cloud Infrastructure Work?. *Asia Pacific Journal of Energy and Environment*, 2(2), 61-64. https://doi.org/10.18034/apjee.v2i2.697

Lal, K. (2016). Impact of Multi-Cloud Infrastructure on Business Organizations to Use Cloud Platforms to Fulfill Their Cloud Needs. *American Journal of Trade and Policy*, 3(3), 121–126. https://doi.org/10.18034/ajtp.v3i3.663

Lal, K., & Ballamudi, V. K. R. (2017). Unlock Data's Full Potential with Segment: A Cloud Data Integration Approach. *Technology & Management Review*, 2(1), 6–12. https://upright.pub/index.php/tmr/article/view/80

Lal, K., Ballamudi, V. K. R., & Thaduri, U. R. (2018). Exploiting the Potential of Artificial Intelligence in Decision Support Systems. *ABC Journal of Advanced Research*, 7(2), 131-138. https://doi.org/10.18034/abcjar.v7i2.695

Maknickiene, N., Maknickas, A. (2013). Financial Market Prediction System with Evolino Neural Network and Delphi Method. *Journal of Business Economics and Management,* 14(2), 403–413. https://doi.org/10.3846/16111699.2012.729532

Mandapuram, M. (2016). Applications of Blockchain and Distributed Ledger Technology (DLT) in Commercial Settings. *Asian Accounting and Auditing Advancement, 7*(1), 50–57. https://4ajournal.com/article/view/76

Mandapuram, M. (2017a). Application of Artificial Intelligence in Contemporary Business: An Analysis for Content Management System Optimization. *Asian Business Review,* 7(3), 117–122. https://doi.org/10.18034/abr.v7i3.650

Mandapuram, M. (2017b). Security Risk Analysis of the Internet of Things: An Early Cautionary Scan. *ABC Research Alert,* 5(3), 49–55. https://doi.org/10.18034/ra.v5i3.650

Mandapuram, M., & Hosen, M. F. (2018). The Object-Oriented Database Management System versus the Relational Database Management System: A Comparison. *Global Disclosure of Economics and Business,* 7(2), 89–96. https://doi.org/10.18034/gdeb.v7i2.657

Mandapuram, M., Gutlapalli, S. S., Bodepudi, A., & Reddy, M. (2018). Investigating the Prospects of Generative Artificial Intelligence. *Asian Journal of Humanity, Art and Literature,* 5(2), 167–174. https://doi.org/10.18034/ajhal.v5i2.659

Sheta, F. A., Ahmed, S. E. M., Faris, H. (2015). A Comparison Between Regression, Artificial Neural Networks and Support Vector Machines for Predicting Stock Market Index. *International Journal of Advanced Research in Artificial Intelligence, 4*(7). https://doi.org/10.14569/IJARAI.2015.040710

Stalidis, G., Karapistolis, D., Vafeiadis, A. (2015). Marketing Decision Support Using Artificial Intelligence and Knowledge Modeling: Application to Tourist Destination Management. *Procedia – Social and Behavioral Sciences, 175,* 106–113. https://doi.org/10.1016/j.sbspro.2015.01.1180

Thaduri, U. R. (2017). Business Security Threat Overview Using IT and Business Intelligence. *Global Disclosure of Economics and Business,* 6(2), 123-132. https://doi.org/10.18034/gdeb.v6i2.703

Thaduri, U. R. (2018). Business Insights of Artificial Intelligence and the Future of Humans. *American Journal of Trade and Policy,* 5(3), 143–150. https://doi.org/10.18034/ajtp.v5i3.669

Thaduri, U. R. (2019). Android & iOS Health Apps for Track Physical Activity and Healthcare. *Malaysian Journal of Medical and Biological Research,* 6(2), 151-156. https://mjmbr.my/index.php/mjmbr/article/view/678

Thaduri, U. R., Ballamudi, V. K. R., Dekkati, S., & Mandapuram, M. (2016). Making the Cloud Adoption Decisions: Gaining Advantages from Taking an Integrated Approach. *International Journal of Reciprocal Symmetry and Theoretical Physics, 3,* 11–16. https://upright.pub/index.php/ijrstp/article/view/77

Thodupunori, S. R., & Gutlapalli, S. S. (2018). Overview of LeOra Software: A Statistical Tool for Decision Makers. *Technology & Management Review, 3*(1), 7–11.

--0--