

INNOVATIONS IN MOBILE DEVICE TESTING FOR BANKING APPLICATIONS

Ashwini Shivarudra

Independent Researcher, USA.

Abstract

These days, people's lives are growing increasingly reliant on mobile banking applications because of their flexibility and ease. Its rise in emerging states is exceeding forecasts, even with these advantages. It was risky, nevertheless, to use mobile devices for financial transactions. It also looks at the impact of perceived danger and engagement on the desire to use continuously. The purpose of this research is to ascertain how innovative features affect consumers' intentions to use mobile banking. The research examined the combined impact of the eight innovation-related characteristics—relative advantage, compatibility, complexity, image, outcome demonstrability, visibility, trial ability, and voluntariness—on adoption intention. 311 college students, who are considered to be young prospects, provided the data, and SEM was used to assess the research hypothesis. The findings substantiate the predicted correlation between the use of mobile banking and its relative benefit and compatibility. But there was no connection discovered between the image, trial ability, complexity, outcome demonstrability, and adoption intention.

Keywords: Mobile Banking, Adoption Intention, Demonstrability, Visibility, Usage Intention, Financial Transactions, Self-Congruence, Perceived Risk, Continuous Usage Intention, Mobile Applications, Result, Risk.

I. INTRODUCTION

Through mobile banking, customers may use any device to access their bank reserves while they are on the go, at any convenient time, and from any location. In addition to location-based transactions, it offers financial services including savings accounts, inter-account money transfers via mobile platforms, and expense payments for items or delivered services [1]. The introduction of contemporary smartphones improved productivity in other commercial organisations as well as the banking industry. There has been a discernible increase in the number of smartphones used in industrialised and a few developing countries worldwide [2]. These days, smartphones enable banks to provide their clients with a variety of services because most, if not all, of them are now releasing various applications for financial transactions [1, 2]. The concept of what is now known as mobile banking originated with people using their smartphones for financial purposes. In a similar vein, as of 2019 there were more over one billion smartphone users globally [1, 2].

The primary cause of the growth is probably the device's flexibility and movability, which allows for account portability and flexibility. Additionally, mobile banking applications shorten operating times for users and eliminate geographical restrictions since they allow users to send money to friends, family, and coworkers using just the keypad on their device— as opposed to traditional transactions that call for the users' physical presence [2]. Furthermore, because mobile devices quickly increase transaction speed and flexibility while lowering transaction costs, they are crucial to the way that banking and other commercial

operations are conducted. But even with all of these advantages—and many more—as previous research has shown, such as [2], its expansion in the majority of developing countries is substantially slower than that of developed countries. Additionally, there haven't been many studies done in Nigeria [2, 3] about online and mobile banking.

In general, m-banking is regarded as one of the cutting-edge services provided by a financial services company, such as a bank, for carrying out non-financial (such as finding the location of an ATM, transferring funds, paying bills, and making investments) and financial (such as locating an ATM, checking balance, and making investments) transactions using a portable device, such as a smartphone, tablet, or mobile phone [3, 4].

Short Messaging Services (SMS) or downloaded m-banking software are two ways that these m-banking services can be provided [3, 4]. While SMS depends on conventional Global System for Mobile Communication (GSM) networks, m-banking applications need an Internet connection on the mobile device. Furthermore, previous research has largely concluded that mobile wallets, or m-wallets, are highly advanced and versatile mobile applications that, in contrast to mobile banking applications, include a number of features like the ability to conduct mobile transactions, or m-payments, which store sensitive personal data like credit card numbers, PIN codes, and encrypted online shopping accounts, as well as information related to membership cards, loyalty cards, and travel cards. The idea of "consumer engagement" is a new and fascinating subject [5, 6].

In fact, one of the top research priorities according to the Marketing Science Institute (MSI) is customer involvement. In light of the recent push in marketing and IS literature to prioritise Customer Engagement (CE), more studies on the subject are only now beginning to surface. CE is described as a consumer's positively valenced cognitive, emotional, and behavioural activity connected to mobile apps during or related to focused consumer and m-application interactions in the context of m-applications [5, 6]. It has recently been found that, in the brand domain, when the impacts of satisfaction, perceived value, and perceived quality are controlled, customer involvement can contribute more predictive power to loyalty intentions [6, 7].

Technology advancements have brought about changes in the banking industry. Banking apps have been converted to electronic and even mobile devices thanks to the growing usage of information technology. Banks are finding great success with electronic banking as a retail distribution channel. The number of customers utilising e-banking has increased significantly since the service was introduced in 1995 [7, 8]. For banks to continue being profitable in the future, e-banking is essential. Mobile banking is becoming more and more popular these days [8]. The adoption of mobile devices in financial services has been driven by advancements in telecommunications. The definition of mobile banking is the,

“A method of providing financial services whereby the client uses mobile devices and mobile communication methods as part of an electronic procedure”.

Customers can access their accounts, pay bills, check account balances, and carry out other banking operations using their cell phone [8, 9]. Since mobile banking adds another revenue

stream to telecom providers and banks alike, it is a significant application of mobile commerce. Mobile banking has been characterised as the primary retail banking distribution method of the 2000s. But unlike new mobile gadgets, mobile banking has not taken off as quickly [9, 10]. Part of the reason for this delayed start is the outdated technology in the cell phones. However, the adoption of mobile phones was increased by the new generation and their lower costs. As a result, it is still expanding, and there is room for the growth of mobile banking applications. It is projected that the global user base for mobile banking and associated services would increase from 55 million in 2009 to 894 million in 2015 [10, 11].

Organisational and national cultures have an impact on the efficacy and efficiency of ICT innovation and implementation [11]. One way to define culture is as the collective mental programming that sets one group or category of people apart from another. Acquired information has a crucial role in producing and interpreting social behaviour and decision-making styles [11, 12].

In addition to theoretical claims that imply that shared views and values among a group of people have an [12], impact on people's attitude towards ICT deployment and transformation, cultural influences have been demonstrated to be significant in ICT usage behaviour [12, 13]. ICT adoption is anticipated to be impacted by the relative influences of a nation's cultural values in a way that is unique to that culture.

Numerous academics have also confirmed that the acceptance of ICT innovation is influenced by culture, and socio-cultural factors have not received much attention in the literature on the initiation, acceptance, and adoption of information and communication technology innovation, particularly in developing nations like Africa.

As an intangible service and a high-tech service delivery channel, mobile banking services are innovative. Given that it is a novel application, it is critical to comprehend how mobile banking is perceived as innovative. In addition, research in the literature has shown that acceptance behaviour is significantly influenced by how innovative traits are perceived. The intention to use mobile banking was discussed in the literature [12, 13] in connection to the TAM (Technology Acceptance Model), trust, and company reputation. The impact of experience, perceived risk, banking requirements, self-efficacy, and certain innovation features (relative advantage, perceived compatibility, perceived complexity, and trial ability) on the intention to use.

1.1 Mobile Banking Applications

M-commerce refers to commercial transactions carried out over the internet or mobile communication networks. Convenience, ubiquity, adaptability, and contextual relevance are the distinguishing characteristics of m-commerce [13, 14]. Customers may do both traditional and sophisticated financial activities using mobile banking, which also offers the wireless and mobile benefits of m-commerce. The banking service must be activated and a cell phone with a built-in chipset or WAP (Wireless Access Protocol) enabled in order to utilise the service [13, 14].

The banks need to take into consideration the needs of their customers while developing mobile banking applications. These fall into four categories: design, security, usability, and technological needs [15]. Technically speaking, both types of available mobile devices should be able to be used. The program need to automatically adjust to the mobile device's settings. Customers of any MNO must be able to use the service. Additionally, as little data as feasible should be transferred. The ability to use the program offline is essential for usability. Data entry should be done in a more straightforward manner.

With just a few "**clicks**," the user should be able to resume using the program and access the information. The application's design should be customised. Switching to an application version with more features should be simple for the user. Push capabilities should be included in the application [15, 16]. A large variety of capabilities, akin to that of electronic banking, ought to be included. Data transfer must be encrypted for security reasons. Prior to use, authorisation is required for data access, and this authorisation process must be straightforward.

Applications for mobile banking add value for banks as well as for clients. Mobile banking enhances customer service, lowers expenses, boosts responsiveness, expands market share, and strengthens brand image [16].

1.2 Innovation Characteristics

One way to describe innovation is,

“A concept, item, or artefact that the applicable unit of adoption views as novel”.

Innovation is present when a potential customer perceives a product as novel or distinct from others. While some innovations are seen as important, others are considered as modest. The qualities of an invention affect how a consumer views the product. "The process by which an innovation is communicated through certain channels among the members of a social system over time" is known as diffusion [16]. An innovation's qualities influence the possibility and pace of purchasing.

Five key features of innovation: Comparative benefit,

“Is the extent to which a new concept is thought to be superior to the one it replaces? It will be adopted more quickly the larger the apparent proportional advantage.”.

“The degree to which an invention is thought to be compatible with the needs, prior experiences, and current values of a potential user is known as its compatibility. Prior to adopting an incompatible invention, a new value system must be adopted, which is a process that takes time”.

The degree to which an innovation is thought to be challenging to use and comprehend is known as its complexity. Innovations that are easier to grasp are embraced more quickly than those that necessitate the adopter to acquire new knowledge and abilities [16, 17].

“Trial ability is the extent to which a new idea can be tested in a restricted setting. An invention that can be tested out gives the adopter less uncertainty”.

Observability,

“Is the extent to which an innovation's effects are apparent to others? Relatively less noticeable breakthroughs spread more slowly”.

Three further features were noted by Moore and Benbasat (1991: 195–203) as follows: Image, [16],

“The extent to which employing an invention is seen to improve one's standing or reputation within a certain system. One of the main reasons people accept innovations is the desire to rise in social standing”.

Voluntariness of use,

“How much the adoption of an invention is seen as voluntary or a matter of free choice. The flexibility to choose which invention to implement when it's required. The perception of voluntariness influences conduct far more than real voluntariness”.

Result demonstrability,

“The observable outcomes of using an invention [15, 16]. The higher the perceived demonstrability of the outcome, the higher the adoption rate”.

II. LITERATURE REVIEW

(Laukkanen, T. 2016) [17] According to this study, customer resistance to innovations is a given, and it needs to be overcome before a product is adopted. Uncertainty surrounds the factors causing resistance to service innovation. The current study looks at how three consumer demographics—income, gender, and age—as well as five theory-driven adoption barriers—usage, value, risk, tradition, and image—affect consumer adoption vs rejection decisions in Internet and mobile banking in order to better explain this behaviour. Binary logit models are used to evaluate hypotheses comparing mobile banking adopters with non-adopters, mobile banking postpones versus rejecters, and Internet banking postpones versus rejecters based on data from two large countrywide surveys performed in Finland (n = 1736 consumers).

(Rahman, Z. 2015) [18] This study examines the different antecedent beliefs that influence consumers' attitudes towards and adoption of Self-Service Technologies (SSTs) offered by banks. To create and evaluate a conceptual model of adoption for each of the three self-service banking technologies (SSBTs), a descriptive study design using survey technique is

employed. The comparison analysis's findings demonstrated how various SSBTs have varied antecedent beliefs that influence adopters' attitudes. The technology acceptance model (TAM) is expanded upon and put to the test by adding two more antecedents from adoption behaviour theories.

(Okon, A. N., 2015) [19] Nigerian banks have adopted the worldwide trend of digitalisation in financial operations throughout the last several years. As a result, many banks have automated their operations, simplified and improved their facilities, and customised their services following the consolidation and recapitalisation processes. Banks are now expanding their e-banking offerings in an effort to stay one step ahead of their rivals in the fierce rivalry. Even yet, it's unclear if advancements in electronic banking have had a major and beneficial influence on Nigerian banks' performance, given how quickly these technologies have developed.

III. RESEARCH METHODOLOGY

Model of Research Figure 1 displays the research model for the study that was taken from the literature. The model incorporates the adoption intention of mobile banking together with eight PCI instruments, in line with the theory proposed in [20]. Below is the major research hypothesis:

H1: The intention to adopt is influenced by how innovation is viewed in respect to mobile banking.

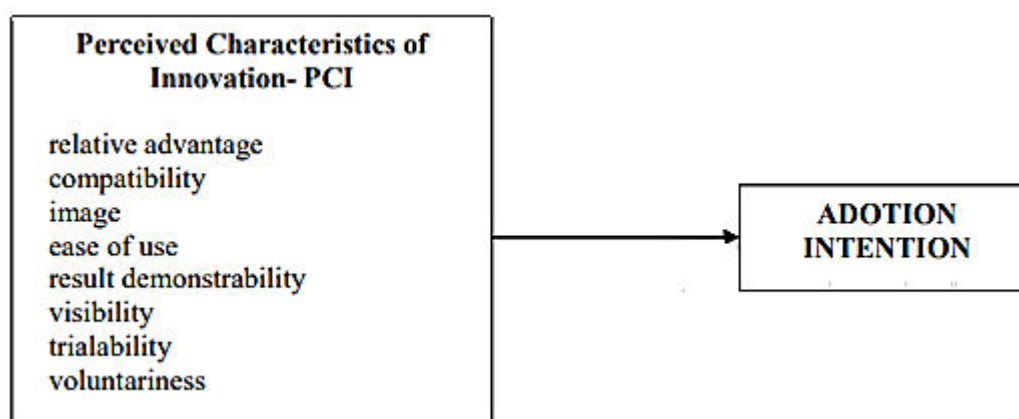


Fig. 1 Frameworks for Research.

3.1 Measures and Data Collection

The structure of the questionnaire included multi-item assessments of the perceived attributes of innovation and intention to adopt. Each scale has five points, similar to the Likert scale. The PCI scale was designed and used to evaluate adoption intention in order to assess perceived innovative features [21, 22].

Internet banking was established using the PCI scale. The Appendix contains the scales. Face-to-face interviews were the method employed to obtain the data for the study. Undergraduate and graduate students are the study's subjects. The example demonstrates the traits of a prospective mobile banking client. Furthermore, those that embraced technology

advancements sooner are sometimes characterised as being younger [22], more educated, earning more money, and working in higher-paying professions. As a result, the sample was made up of potential customers for mobile banking. Additionally, the sample's participants did not use mobile banking applications. Table 1 [22] provides the sample's social demographics.

Table 1 The samples' demographic characteristics. [23]

Category	Sub-category	Frequency	Percentage
Gender	Female	174	59.89%
	Male	137	55.68%
Age	18-20	9	2.9%
	20-22	35	26.59%
	22-24	75	65.9%
	24-25	55	16.96%
	25 above	29	21.65%
	Family income	2000 \$ below	136
	1000-3500 \$ usd	73	26.5%
	3502 \$-above	102	39.6%
Monthaly Expenditure	376 \$below	26	9.68%
	376-750 \$	56	19.69%
	1.159-1.596 \$	164	69.89%
	1598 USD	49	22.98%

IV. RESEARCH FINDINGS

In the study, structural equation modelling, or SEM, was employed to assess the research hypothesis. Reliability and validity analyses were conducted prior to hypothesis testing since multi-item scales were utilised [23, 24]. The findings of the validity and reliability study are shown in Table 2. In order to ensure validity, exploratory factor analysis was conducted, and Cronbach's Alpha was utilised to ensure reliability.

Table 2 Reliability and Validity Analysis Outcome. [24]

Scales	No. of items	Cronbach's alpha	Total variance explained
F1: Relative	9	.594	.259
F2: Trial ability	4	.968	.961
F3: Results demonstrability	4	.948	.255
F4: Complexity	4	.613	.549
F5: Adoption Intention	4	.369	.348

Eight factors were removed from the PCI scale and a five-factor solution was found as a consequence of the validity and reliability investigation; however, no variables were removed from the adoption intention scale. The innovation qualities "visibility" and "voluntariness" were found to have low Cronbach's Alpha values (.570 and .617) and were removed from the

scale [24]. The attributes of innovation "relative advantage" and "compatibility" were found to be loaded on Factor 2. These outcomes resemble the research.

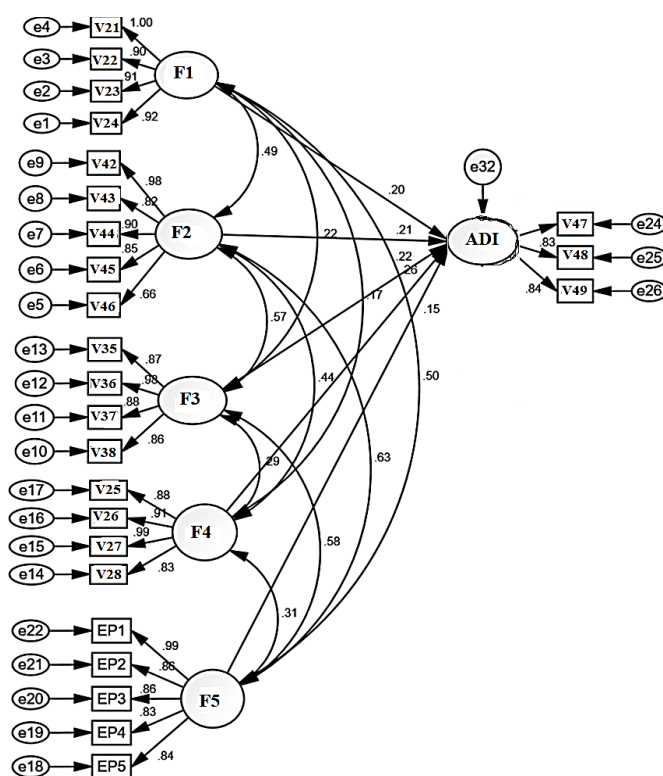


Fig. 2 Structural Research Model. [25]

Following the examination of validity and reliability, structural equation modelling (SEM) was used to assess the research hypothesis [25, 26]. The structured model is shown in Figure 2. Table 3 lists the variables that make up the model.

Table 3 The Research Modeling's variable. [27]

Variables	No.
No. of variables in the model.	54
No. of observed variables.	23
No. of unobserved variables.	31
Number of exogenous variables.	29
Number of endogenous variables.	22

Table 3 shows that there are 53 variables in the model. Thirty of them are unobserved variables, while twenty of the variables are observed. Six latent variables and 24 variables that exhibit error and are designated as "e" are among the unobserved variables. Table 3 provides a detailed set of evaluation criteria and values pertaining to the fitness of the data and the model.

Table 4 illustrates that a number of factors are considered when assessing the goodness-of-fit between the simulation and the data [25]. The likelihood ratio for chi-square statistics is the first metric. There is statistical significance for this result (p=0.000). The 2 / SD ratio is 2.431, and it should be between 2 and 5.

Table 4 Goodness of Fit. [26, 27]

Fit Measure	Default model	Saturated	Abbreviation
Discrepancy (x^2)	596.261	0.000	CMIN
Degrees of freedom	249	0	DF
P	.259		P
Discrepancy/Df (x^2 /sd)	2.659	1.000	CMINDF
Goodness of Fit	.986	1.000	GFI
Adjusted Goodness of Fit	.849		AGFI
Normed fit Index	.979	1.000	NFI
Relative fit index	.689		RFI
Incremental fit index	.749		IFI
Tucker-Lewis Index	.954	1.000	TLI
Comparative fit Index	.896		CFI
RMSEA	.978	0.5 < RMSEA < 0.9	RMSEA
Hoelter.0.5 Index	.987		HFIVE
Hoelter.0.1 Index	.698		HONE

The regression weights are presented in Table 5. It is evident that the only factor that significantly influences the inclination to use mobile banking is "relative advantage & compatibility." The adoption of mobile banking is not greatly impacted by the other innovative features, such as trial ability, image, [26], outcome demonstrability, and complexity.

Table 5 Regressions Weights.

	Estimate	S.E.	t	Sig.
Adoption intention >-- Relative Adv. & Compatibility	.968	.149	.625	***
Adoption Intention >-- Trial ability	.978	.924	.159	.986
Adoption intention >-- Image	.654	.964	.689	.689
Result intention >-- Result Demonstrability	.986	.896	.648	.978
Adoption intention >-- Complexity	.682	.893	.654	.986

As a result, the study hypothesis received some acceptance. R² values were used to determine the model's explanatory power. R² values, which in this study were determined to be 0.785 [26], indicate the overall appropriateness of the model and the explanatory power of the dependent variables. This indicates that 18% of the inclination to embrace mobile banking

may be explained by relative benefit and compatibility. This may not seem like a lot, but just innovative features were looked at in this study; many other factors also influence the inclination to embrace mobile banking. Thus, the R^2 value may be deemed appropriate [28].

V. DISCUSSION

Adoption is defined as,

“A choice to fully use an innovation as the most effective accessible strategy. Rejection is the choice to reject a novel idea”.

An innovation's perceived qualities have a significant role in determining how quickly it is adopted. The impact of innovative features on the intention to use mobile banking is investigated in this study. The premise that there is a combined influence of innovation features was generated from the underlying theory.

Relative advantage and compatibility, rather than all innovation features, were shown to be predictors. The idea that innovation is a superior concept is known as relative advantage. It is most frequently determined to be substantial and is mentioned as an impressive variable in the adoption intention. The comparison that prospective adopters make between the new technology and the current technology leads to their perception of relative advantage [28, 29]. According to this survey, prospects are more likely to use mobile banking when they believe it would speed up, improve, or simplify banking [29], allow them more control over their banking experience, or improve their banking activities.

The idea that an invention is compatible with the requirements, prior experiences, and current values of a potential user is known as compatibility. It has to do with how effectively the innovation blends into the social structure already in place among the adopters. When a new idea is viewed as compatible, it is seen as fitting into a person's particular circumstances.

VI. CONCLUSION

According to this study, compatibility is a crucial innovative feature that significantly influences adoption intention. Prospects are more likely to accept mobile banking when they believe it will work with all facets of banking, be fully integrated with their existing banking practices, and complement their preferred banking methods. Furthermore, it was discovered that the desire to embrace mobile banking is unaffected by factors such as image, trial ability, result demonstrability, and complexity. As a result, the banks should concentrate on distributing information that highlights the relative benefits of mobile banking over conventional banking channels as well as how well it fits with current values, prior experiences, and anticipated requirements. To enhance my writing, I would like to explore the adoption intention of mobile banking by incorporating other underlying factors and developing a more thorough model.

VII. REFERENCES

- [1] Bagudu, H.D.; Khan, M.; Jan, S.; Roslan, A.-H. The Effect of Mobile Banking on the Performance of Commercial Banks in Nigeria. *Int. Res. J. Manag. IT Soc. Sci.* 2017, 4, 71–76.
- [2] Schuetz, S.; Venkatesh, V. Blockchain, adoption, and financial inclusion in India: Research opportunities. *Int. J. Inf. Manag.* 2019, 101936.
- [3] Raza, S.A.; Umer, A.; Shah, N. New determinants of ease of use and perceived usefulness for mobile banking adoption. *Int. J. Electron. Cust. Relatsh. Manag.* 2017, 11, 44–65.
- [4] Dandena, S.; Abera, T.M.; Mengesha, T. Factors affecting the adoption of mobile banking: The case of United Bank Addis Ababa city customers. *J. Process. Manag. New Technol.* 2020, 8, 30–37.
- [5] Verkijika, S.F. Factors influencing the adoption of mobile commerce applications in Cameroon. *Telemat. Inform.* 2018, 35, 1665–1674.
- [6] Malaquias, R.F.; Hwang, Y. An empirical study on trust in mobile banking: A developing country perspective. *Comput. Hum. Behav.* 2016, 54, 453–461.
- [7] Gounaris, S. & Koritos, C. (2008). Investigating the Drivers of Internet Banking Adoption Decision a Comparison of Three Alternative Frameworks. *International Journal of Bank Marketing*, Vol: 26, No:5, pp.282-304.
- [8] Holak, S.L. & Lehmann, D.R. (1990). Purchase Intentions and the Dimensions of Innovation: An Exploratory Model. *Journal of Product Innovation Management*, Vol: 7, pp.59–73.
- [9] Kim, G., Shin, B. & Lee, H.G. (2009). Understanding Dynamics between Initial Trust and Usage Intentions of Mobile Banking. *Information Systems Journal*, Vol: 19, pp.283-311.
- [10] Kim, H.W., Chan, H.C. & Gupta Sumeet (2007). Value-based Adoption of Mobile Internet: An Empirical Investigation. *Decision Support Systems*, Vol: 43, pp.111-126.
- [11] Lee, Y. & Benbasat, I. (2003) Interface Design for Mobile Commerce. *Communications of the ACM*, Vol: 46, pp.49–52.
- [12] Luarn, P. & Lin, H.H. (2005). Toward an Understanding of the Behavioural Intention to Use Mobile Banking. *Computers in Human Behaviour*, Vol: 21, pp.873-891.
- [13] Moore, G.C. & Benbasat, I. (1991). Development of an Instrument to Measure The Perceptions of Adopting an Information Technology Innovation. *Information Systems Research*, Vol: 21, No: 3, pp.192-222.
- [14] Steinmetz, H., Schmidt, P., Tina-Booh, A., Wieczorek, S., and Schwartz, S. H. 2009. “Testing Measurement Invariance Using Multigroup CFA: Differences Between Educational Groups in Human Values Measurement,” *Quality & Quantity* (43: 4), pp. 599-616.
- [15] Stern, B. L., Bush, R. F., and Hair, J. F. Jr. 1977. “The Self-Image/Store Image Matching Process: An Empirical Test,” *The Journal Of Business* (50: 1), pp. 63-69.
- [16] Swann, W. B., Jr. 1983. “Self-Verification: Bringing Social Reality into Harmony with the Self,” in *Social Psychological Perspectives on the Self*, J. Suls and A. G. Greenwald (eds.), Hillsdale, NJ: Lawrence Erlbaum Associates, pp. 33–66.
- [17] Laukkanen, T. (2016). Consumer adoption versus rejection decisions in seemingly similar service innovations: The case of the Internet and mobile banking. *Journal of Business Research*, 69(7), 2432-2439.

- [18] Kaushik, A. K., & Rahman, Z. (2015). Innovation adoption across self-service banking technologies in India. *International Journal of Bank Marketing*, 33(2), 96-121.
- [19] Orji, A., Ogbuabor, J. E., Okon, A. N., & Anthony-Orji, O. I. (2018). Electronic banking innovations and selected banks performance in Nigeria. *The Economics and Finance Letters*, 5(2), 46-57.
- [20] Leckie, C., Nyadzayo, M. W., and Johnson, L. W. 2016. "Antecedents of Consumer Brand Engagement and Brand Loyalty," *Journal of Marketing Management* (32: 5-6), pp. 558-578.
- [21] Lee, M. C. 2009. "Factors Influencing the Adoption of Internet Banking: An Integration of TAM and TPB with Perceived Risk and Perceived Benefit," *Electronic Commerce Research and Applications* (8: 3), pp. 130-141.
- [22] Liao, C. H., Tsou, C. W., and Huang, M. F. 2007. "Factors Influencing the Usage of 3G Mobile Services in Taiwan," *Online Information Review* (31: 6), pp. 759-774.
- [23] Lin, Z., and Filieri, R. 2015. "Airline Passengers' Continuance Intention towards Online Check-In Services: The Role of Personal Innovativeness and Subjective Knowledge," *Transportation Research Part E: Logistics and Transportation Review* (81), pp. 158-168.
- [24] Fornell, C. G., and Larcker, D. F. 1981. "Evaluating Structural Equation Models with Unobservable Variables and Measurement Error," *Journal of Marketing Research* (18: 1), pp. 39-50.
- [25] Federal Reserve Bank (2012), "Current Use of Mobile Banking and Payments".
- [26] Greenwald, A. G., and Leavitt, C. 1984. "Audience Involvement in Advertising: Four Levels," *Journal of Consumer Research* (11: 1), pp. 581-592.
- [27] Suoranta, M. & Mattila, M. (2004). Mobile Banking and Consumer Behaviour: New Insights into the Diffusion Pattern. *Journal of Financial Services Marketing*. Vol: 8, No: 4, pp.354-366.
- [28] Van Slyke, C., Lou, H. & Day, J. (2002). The Impact of Perceived Innovation Characteristics on Intention to use Groupware, *Information Resources Management Journal*, and Vol: 15, No: 1, pp. 5-12.
- [29] Venkatesh, V., Ramesh, V. & Massey, A.P. (2003) Understanding Usability in Mobile Commerce. *Communications of the ACM*, Vol: 46, pp.53-36.
- [30] Santhosh Palavesh. (2019). The Role of Open Innovation and Crowdsourcing in Generating New Business Ideas and Concepts. *International Journal for Research Publication and Seminar*, 10(4), 137-147. <https://doi.org/10.36676/jrps.v10.i4.1456>
- [31] Santosh Palavesh. (2021). Developing Business Concepts for Underserved Markets: Identifying and Addressing Unmet Needs in Niche or Emerging Markets. *Innovative Research Thoughts*, 7(3), 76-89. <https://doi.org/10.36676/irt.v7.i3.1437>
- [32] Palavesh, S. (2021). Co-Creating Business Concepts with Customers: Approaches to the Use of Customers in New Product/Service Development. *Integrated Journal for Research in Arts and Humanities*, 1(1), 54-66. <https://doi.org/10.55544/ijrah.1.1.9>
- [33] Santhosh Palavesh. (2022). Entrepreneurial Opportunities in the Circular Economy: Defining Business Concepts for Closed-Loop Systems and Resource Efficiency. *European Economic Letters (EEL)*, 12(2), 189-204. <https://doi.org/10.52783/eel.v12i2.1785>
- [34] Santhosh Palavesh. (2022). The Impact of Emerging Technologies (e.g., AI, Blockchain, IoT) On Conceptualizing and Delivering new Business Offerings. *International Journal on*

- Recent and Innovation Trends in Computing and Communication, 10(9), 160–173. Retrieved from <https://www.ijritcc.org/index.php/ijritcc/article/view/10955>
- [35] Santhosh Palavesh. (2021). Business Model Innovation: Strategies for Creating and Capturing Value Through Novel Business Concepts. *European Economic Letters (EEL)*, 11(1). <https://doi.org/10.52783/eel.v11i1.1784>
- [36] Santhosh Palavesh. (2023). Leveraging Lean Startup Principles: Developing And Testing Minimum Viable Products (Mvps) In New Business Ventures. *Educational Administration: Theory and Practice*, 29(4), 2418–2424. <https://doi.org/10.53555/kuvey.v29i4.7141>
- [37] Palavesh, S. (2023). The role of design thinking in conceptualizing and validating new business ideas. *Journal of Informatics Education and Research*, 3(2), 3057.
- [38] Vijaya Venkata Sri Rama Bhaskar, Akhil Mittal, Santosh Palavesh, Krishnateja Shiva, Pradeep Etikani. (2020). Regulating AI in Fintech: Balancing Innovation with Consumer Protection. *European Economic Letters (EEL)*, 10(1). <https://doi.org/10.52783/eel.v10i1.1810>
- [39] Sri Sai Subramanyam Challa. (2023). Regulatory Intelligence: Leveraging Data Analytics for Regulatory Decision-Making. *International Journal on Recent and Innovation Trends in Computing and Communication*, 11(11), 1426–1434. Retrieved from <https://www.ijritcc.org/index.php/ijritcc/article/view/10893>
- [40] Challa, S. S. S. (2020). Assessing the regulatory implications of personalized medicine and the use of biomarkers in drug development and approval. *European Chemical Bulletin*, 9(4), 134-146.
- [41] D.O.I10.53555/ecb.v9:i4.17671
- [42] EVALUATING THE EFFECTIVENESS OF RISK-BASED APPROACHES IN STREAMLINING THE REGULATORY APPROVAL PROCESS FOR NOVEL THERAPIES. (2021). *Journal of Population Therapeutics and Clinical Pharmacology*, 28(2), 436-448. <https://doi.org/10.53555/jptcp.v28i2.7421>
- [43] Challa, S. S. S., Tilala, M., Chawda, A. D., & Benke, A. P. (2019). Investigating the use of natural language processing (NLP) techniques in automating the extraction of regulatory requirements from unstructured data sources. *Annals of Pharma Research*, 7(5), 380-387.
- [44] Ashok Choppadandi. (2022). Exploring the Potential of Blockchain Technology in Enhancing Supply Chain Transparency and Compliance with Good Distribution Practices (GDP). *International Journal on Recent and Innovation Trends in Computing and Communication*, 10(12), 336–343. Retrieved from <https://www.ijritcc.org/index.php/ijritcc/article/view/10981>
- [45] Challa, S. S. S., Chawda, A. D., Benke, A. P., & Tilala, M. (2020). Evaluating the use of machine learning algorithms in predicting drug-drug interactions and adverse events during the drug development process. *NeuroQuantology*, 18(12), 176-186. <https://doi.org/10.48047/nq.2020.18.12.NQ20252>
- [46] Challa, S. S. S., Tilala, M., Chawda, A. D., & Benke, A. P. (2023). Investigating the impact of AI-assisted drug discovery on the efficiency and cost-effectiveness of pharmaceutical R&D. *Journal of Cardiovascular Disease Research*, 14(10), 2244.
- [47] Challa, S. S. S., Tilala, M., Chawda, A. D., & Benke, A. P. (2022). Quality Management Systems in Regulatory Affairs: Implementation Challenges and Solutions. *Journal for Research in Applied Sciences and Biotechnology*, 1(3), 278–284. <https://doi.org/10.55544/jrasb.1.3.36>

- [48] Ranjit Kumar Gupta, Sagar Shukla, Anaswara Thekkan Rajan, & Sneha Aravind. (2022). Strategies for Effective Product Roadmap Development and Execution in Data Analytics Platforms. *International Journal for Research Publication and Seminar*, 13(1), 328–342. Retrieved from <https://jrps.shodhsagar.com/index.php/j/article/view/1515>
- [49] Ranjit Kumar Gupta, Sagar Shukla, Anaswara Thekkan Rajan, & Sneha Aravind. (2022). Leveraging Data Analytics to Improve User Satisfaction for Key Personas: The Impact of Feedback Loops. *International Journal for Research Publication and Seminar*, 11(4), 242–252. <https://doi.org/10.36676/jrps.v11.i4.1489>
- [50] Ranjit Kumar Gupta, Sagar Shukla, Anaswara Thekkan Rajan, Sneha Aravind, 2021. "Utilizing Splunk for Proactive Issue Resolution in Full Stack Development Projects" *ESP Journal of Engineering & Technology Advancements* 1(1): 57-64.
- [51] Sagar Shukla, Anaswara Thekkan Rajan, Sneha Aravind, Ranjit Kumar Gupta, Santosh Palavesh. (2023). Monetizing API Suites: Best Practices for Establishing Data Partnerships and Iterating on Customer Feedback. *European Economic Letters (EEL)*, 13(5), 2040–2053. <https://doi.org/10.52783/eel.v13i5.1798>
- [52] Sagar Shukla. (2021). Integrating Data Analytics Platforms with Machine Learning Workflows: Enhancing Predictive Capability and Revenue Growth. *International Journal on Recent and Innovation Trends in Computing and Communication*, 9(12), 63–74. Retrieved from <https://ijritcc.org/index.php/ijritcc/article/view/11119>
- [53] Shukla, S., Thekkan Rajan, A., Aravind, S., & Gupta, R. K. (2023). Implementing scalable big-data tech stacks in pre-seed start-ups: Challenges and strategies for realizing strategic vision. *International Journal of Communication Networks and Information Security*, 15(1).
- [54] Sneha Aravind. (2021). Integrating REST APIs in Single Page Applications using Angular and TypeScript. *International Journal of Intelligent Systems and Applications in Engineering*, 9(2), 81 –. Retrieved from <https://ijisae.org/index.php/IJISAE/article/view/6829>
- [55] Aravind, S., Cherukuri, H., Gupta, R. K., Shukla, S., & Rajan, A. T. (2022). The role of HTML5 and CSS3 in creating optimized graphic prototype websites and application interfaces. *NeuroQuantology*, 20(12), 4522-4536. <https://doi.org/10.48047/NQ.2022.20.12.NQ77775>
- [56] Nikhil Singla. (2023). Assessing the Performance and Cost-Efficiency of Serverless Computing for Deploying and Scaling AI and ML Workloads in the Cloud. *International Journal of Intelligent Systems and Applications in Engineering*, 11(5s), 618–630. Retrieved from <https://ijisae.org/index.php/IJISAE/article/view/6730>
- [57] Rishabh Rajesh Shanbhag, Rajkumar Balasubramanian, Ugandhar Dasi, Nikhil Singla, & Siddhant Benadikar. (2022). Case Studies and Best Practices in Cloud-Based Big Data Analytics for Process Control. *International Journal for Research Publication and Seminar*, 13(5), 292–311. <https://doi.org/10.36676/jrps.v13.i5.1462>
- [58] Siddhant Benadikar. (2021). Developing a Scalable and Efficient Cloud-Based Framework for Distributed Machine Learning. *International Journal of Intelligent Systems and Applications in Engineering*, 9(4), 288 –. Retrieved from <https://ijisae.org/index.php/IJISAE/article/view/6761>
- [59] Siddhant Benadikar. (2021). Evaluating the Effectiveness of Cloud-Based AI and ML Techniques for Personalized Healthcare and Remote Patient Monitoring. *International*

- Journal on Recent and Innovation Trends in Computing and Communication, 9(10), 03–16. Retrieved from <https://www.ijritcc.org/index.php/ijritcc/article/view/11036>
- [60] Rishabh Rajesh Shanbhag. (2023). Exploring the Use of Cloud-Based AI and ML for Real-Time Anomaly Detection and Predictive Maintenance in Industrial IoT Systems. *International Journal of Intelligent Systems and Applications in Engineering*, 11(4), 925 –. Retrieved from <https://ijisae.org/index.php/IJISAE/article/view/6762>
- [61] Nikhil Singla. (2023). Assessing the Performance and Cost-Efficiency of Serverless Computing for Deploying and Scaling AI and ML Workloads in the Cloud. *International Journal of Intelligent Systems and Applications in Engineering*, 11(5s), 618–630. Retrieved from <https://ijisae.org/index.php/IJISAE/article/view/673>
- [62] Nikhil Singla. (2023). Assessing the Performance and Cost-Efficiency of Serverless Computing for Deploying and Scaling AI and ML Workloads in the Cloud. *International Journal of Intelligent Systems and Applications in Engineering*, 11(5s), 618–630. Retrieved from <https://ijisae.org/index.php/IJISAE/article/view/6730>
- [63] Challa, S. S., Tilala, M., Chawda, A. D., & Benke, A. P. (2019). Investigating the use of natural language processing (NLP) techniques in automating the extraction of regulatory requirements from unstructured data sources. *Annals of PharmaResearch*, 7(5), 380-387.
- [64] Ritesh Chaturvedi. (2023). Robotic Process Automation (RPA) in Healthcare: Transforming Revenue Cycle Operations. *International Journal on Recent and Innovation Trends in Computing and Communication*, 11(6), 652–658. Retrieved from <https://www.ijritcc.org/index.php/ijritcc/article/view/11045>
- [65] Chaturvedi, R., & Sharma, S. (2022). Assessing the Long-Term Benefits of Automated Remittance in Large Healthcare Networks. *Journal for Research in Applied Sciences and Biotechnology*, 1(5), 219–224. <https://doi.org/10.55544/jrasb.1.5.25>
- [66] Chaturvedi, R., & Sharma, S. (2022). Enhancing healthcare staffing efficiency with AI-powered demand management tools. *Eurasian Chemical Bulletin*, 11(Regular Issue 1), 675-681. <https://doi.org/10.5281/zenodo.13268360>
- [67] Dr. Saloni Sharma, & Ritesh Chaturvedi. (2017). Blockchain Technology in Healthcare Billing: Enhancing Transparency and Security. *International Journal for Research Publication and Seminar*, 10(2), 106–117. Retrieved from <https://jrps.shodhsagar.com/index.php/j/article/view/1475>
- [68] Dr. Saloni Sharma, & Ritesh Chaturvedi. (2017). Blockchain Technology in Healthcare Billing: Enhancing Transparency and Security. *International Journal for Research Publication and Seminar*, 10(2), 106–117. Retrieved from <https://jrps.shodhsagar.com/index.php/j/article/view/1475>
- [69] Saloni Sharma. (2020). AI-Driven Predictive Modelling for Early Disease Detection and Prevention. *International Journal on Recent and Innovation Trends in Computing and Communication*, 8(12), 27–36. Retrieved from <https://www.ijritcc.org/index.php/ijritcc/article/view/11046>
- [70] Chaturvedi, R., & Sharma, S. (2022). Assessing the Long-Term Benefits of Automated Remittance in Large Healthcare Networks. *Journal for Research in Applied Sciences and Biotechnology*, 1(5), 219–224. <https://doi.org/10.55544/jrasb.1.5.25>
- [71] Pavan Ogeti, Narendra Sharad Fadnavis, Gireesh Bhaulal Patil, Uday Krishna Padyana, Hitesh Premshankar Rai. (2022). Blockchain Technology for Secure and Transparent

- Financial Transactions. *European Economic Letters (EEL)*, 12(2), 180–188. Retrieved from <https://www.eelet.org.uk/index.php/journal/article/view/1283>
- [72] Ogeti, P., Fadnavis, N. S., Patil, G. B., Padyana, U. K., & Rai, H. P. (2023). Edge computing vs. cloud computing: A comparative analysis of their roles and benefits. *Volume 20, No. 3*, 214-226.
- [73] Fadnavis, N. S., Patil, G. B., Padyana, U. K., Rai, H. P., & Ogeti, P. (2020). Machine learning applications in climate modeling and weather forecasting. *NeuroQuantology*, 18(6), 135-145. <https://doi.org/10.48047/nq.2020.18.6.NQ20194>
- [74] Narendra Sharad Fadnavis. (2021). Optimizing Scalability and Performance in Cloud Services: Strategies and Solutions. *International Journal on Recent and Innovation Trends in Computing and Communication*, 9(2), 14–21. Retrieved from <https://www.ijritcc.org/index.php/ijritcc/article/view/10889>
- [75] Gireesh Bhaulal Patil. (2022). AI-Driven Cloud Services: Enhancing Efficiency and Scalability in Modern Enterprises. *International Journal of Intelligent Systems and Applications in Engineering*, 10(1), 153–162. Retrieved from <https://ijisae.org/index.php/IJISAE/article/view/6728>
- [76] Padyana, U. K., Rai, H. P., Ogeti, P., Fadnavis, N. S., & Patil, G. B. (2023). AI and Machine Learning in Cloud-Based Internet of Things (IoT) Solutions: A Comprehensive Review and Analysis. *Integrated Journal for Research in Arts and Humanities*, 3(3), 121–132. <https://doi.org/10.55544/ijrah.3.3.20>
- [77] Patil, G. B., Padyana, U. K., Rai, H. P., Ogeti, P., & Fadnavis, N. S. (2021). Personalized marketing strategies through machine learning: Enhancing customer engagement. *Journal of Informatics Education and Research*, 1(1), 9. <http://jier.org>
- [78] Padyana, U. K., Rai, H. P., Ogeti, P., Fadnavis, N. S., & Patil, G. B. (2023). AI and Machine Learning in Cloud-Based Internet of Things (IoT) Solutions: A Comprehensive Review and Analysis. *Integrated Journal for Research in Arts and Humanities*, 3(3), 121–132. <https://doi.org/10.55544/ijrah.3.3.20>
- [79] Krishnateja Shiva. (2022). Leveraging Cloud Resource for Hyperparameter Tuning in Deep Learning Models. *International Journal on Recent and Innovation Trends in Computing and Communication*, 10(2), 30–35. Retrieved from <https://www.ijritcc.org/index.php/ijritcc/article/view/10980>
- [80] Shiva, K., Etikani, P., Bhaskar, V. V. S. R., Palavesh, S., & Dave, A. (2022). The rise of robo-advisors: AI-powered investment management for everyone. *Journal of Namibian Studies*, 31, 201-214.
- [81] Etikani, P., Bhaskar, V. V. S. R., Nuguri, S., Saoji, R., & Shiva, K. (2023). Automating machine learning workflows with cloud-based pipelines. *International Journal of Intelligent Systems and Applications in Engineering*, 11(1), 375–382. <https://doi.org/10.48047/ijisae.2023.11.1.375>
- [82] Etikani, P., Bhaskar, V. V. S. R., Palavesh, S., Saoji, R., & Shiva, K. (2023). AI-powered algorithmic trading strategies in the stock market. *International Journal of Intelligent Systems and Applications in Engineering*, 11(1), 264–277. https://doi.org/10.1234/ijisdip.org_2023-Volume-11-Issue-1_Page_264-277

- [83] Bhaskar, V. V. S. R., Etikani, P., Shiva, K., Choppadandi, A., & Dave, A. (2019). Building explainable AI systems with federated learning on the cloud. *Journal of Cloud Computing and Artificial Intelligence*, 16(1), 1–14.
- [84] Ogeti, P., Fadnavis, N. S., Patil, G. B., Padyana, U. K., & Rai, H. P. (2022). Blockchain technology for secure and transparent financial transactions. *European Economic Letters*, 12(2), 180-192. <http://eelet.org.uk>
- [85] Vijaya Venkata Sri Rama Bhaskar, Akhil Mittal, Santosh Palavesh, Krishnateja Shiva, Pradeep Etikani. (2020). Regulating AI in Fintech: Balancing Innovation with Consumer Protection. *European Economic Letters (EEL)*, 10(1). <https://doi.org/10.52783/eel.v10i1.1810>
- [86] Dave, A., Shiva, K., Etikani, P., Bhaskar, V. V. S. R., & Choppadandi, A. (2022). Serverless AI: Democratizing machine learning with cloud functions. *Journal of Informatics Education and Research*, 2(1), 22-35. <http://jier.org>
- [87] Dave, A., Etikani, P., Bhaskar, V. V. S. R., & Shiva, K. (2020). Biometric authentication for secure mobile payments. *Journal of Mobile Technology and Security*, 41(3), 245-259.
- [88] Saoji, R., Nuguri, S., Shiva, K., Etikani, P., & Bhaskar, V. V. S. R. (2021). Adaptive AI-based deep learning models for dynamic control in software-defined networks. *International Journal of Electrical and Electronics Engineering (IJEEE)*, 10(1), 89–100. ISSN (P): 2278–9944; ISSN (E): 2278–9952
- [89] Narendra Sharad Fadnavis. (2021). Optimizing Scalability and Performance in Cloud Services: Strategies and Solutions. *International Journal on Recent and Innovation Trends in Computing and Communication*, 9(2), 14–21. Retrieved from <https://www.ijritcc.org/index.php/ijritcc/article/view/10889>
- [90] Joel lopes, Arth Dave, Hemanth Swamy, Varun Nakra, & Akshay Agarwal. (2023). Machine Learning Techniques And Predictive Modeling For Retail Inventory Management Systems. *Educational Administration: Theory and Practice*, 29(4), 698–706. <https://doi.org/10.53555/kuey.v29i4.5645>
- [91] Nitin Prasad. (2022). Security Challenges and Solutions in Cloud-Based Artificial Intelligence and Machine Learning Systems. *International Journal on Recent and Innovation Trends in Computing and Communication*, 10(12), 286–292. Retrieved from <https://www.ijritcc.org/index.php/ijritcc/article/view/10750>
- [92] Prasad, N., Narukulla, N., Hajari, V. R., Paripati, L., & Shah, J. (2020). AI-driven data governance framework for cloud-based data analytics. *Volume 17, (2)*, 1551-1561.
- [93] Jigar Shah , Joel lopes , Nitin Prasad , Narendra Narukulla , Venudhar Rao Hajari , Lohith Paripati. (2023). Optimizing Resource Allocation And Scalability In Cloud-Based Machine Learning Models. *Migration Letters*, 20(S12), 1823–1832. Retrieved from <https://migrationletters.com/index.php/ml/article/view/10652>
- [94] Big Data Analytics using Machine Learning Techniques on Cloud Platforms. (2019). *International Journal of Business Management and Visuals*, ISSN: 3006-2705, 2(2), 54-58. <https://ijbmv.com/index.php/home/article/view/76>
- [95] Shah, J., Narukulla, N., Hajari, V. R., Paripati, L., & Prasad, N. (2021). Scalable machine learning infrastructure on cloud for large-scale data processing. *Tuijin Jishu/Journal of Propulsion Technology*, 42(2), 45-53.

- [96] Narukulla, N., Lopes, J., Hajari, V. R., Prasad, N., & Swamy, H. (2021). Real-time data processing and predictive analytics using cloud-based machine learning. *Tuijin Jishu/Journal of Propulsion Technology*, 42(4), 91-102
- [97] Secure Federated Learning Framework for Distributed Ai Model Training in Cloud Environments. (2019). *International Journal of Open Publication and Exploration*, ISSN: 3006-2853, 7(1), 31-39. <https://ijope.com/index.php/home/article/view/145>
- [98] Paripati, L., Prasad, N., Shah, J., Narukulla, N., & Hajari, V. R. (2021). Blockchain-enabled data analytics for ensuring data integrity and trust in AI systems. *International Journal of Computer Science and Engineering (IJCSE)*, 10(2), 27–38. ISSN (P): 2278–9960; ISSN (E): 2278–9979.
- [99] Hajari, V. R., Prasad, N., Narukulla, N., Chaturvedi, R., & Sharma, S. (2023). Validation techniques for AI/ML components in medical diagnostic devices. *NeuroQuantology*, 21(4), 306-312. <https://doi.org/10.48047/NQ.2023.21.4.NQ23029>
- [100] Hajari, V. R., Chaturvedi, R., Sharma, S., Tilala, M., Chawda, A. D., & Benke, A. P. (2023). Interoperability testing strategies for medical IoT devices. *Tuijin Jishu/Journal of Propulsion Technology*, 44(1), 258. DOI: 10.36227/techrxiv.171340711.17793838/v1
- [101] P. V., V. R., & Chidambaranathan, S. (2023). Polyp segmentation using UNet and ENet. In *Proceedings of the 6th International Conference on Recent Trends in Advance Computing (ICRTAC)* (pp. 516-522). Chennai, India. <https://doi.org/10.1109/ICRTAC59277.2023.10480851>
- [102] Athisayaraj, A. A., Sathiyarayanan, M., Khan, S., Selvi, A. S., Briskilla, M. I., Jemima, P. P., Chidambaranathan, S., Sithik, A. S., Sivasankari, K., & Duraipandian, K. (2023). Smart thermal-cooler umbrella (UK Design No. 6329357).
- [103] Challa, S. S. S., Chawda, A. D., Benke, A. P., & Tilala, M. (2023). Regulatory intelligence: Leveraging data analytics for regulatory decision-making. *International Journal on Recent and Innovation Trends in Computing and Communication*, 11, 10.
- [104] Challa, S. S. S., Tilala, M., Chawda, A. D., & Benke, A. P. (2019). Investigating the use of natural language processing (NLP) techniques in automating the extraction of regulatory requirements from unstructured data sources. *Annals of Pharma Research*, 7(5),
- [105] Challa, S. S. S., Tilala, M., Chawda, A. D., & Benke, A. P. (2021). Navigating regulatory requirements for complex dosage forms: Insights from topical, parenteral, and ophthalmic products. *NeuroQuantology*, 19(12), 15.
- [106] Challa, S. S. S., Tilala, M., Chawda, A. D., & Benke, A. P. (2022). Quality management systems in regulatory affairs: Implementation challenges and solutions. *Journal for Research in Applied Sciences*
- [107] Kavuri, S., & Narne, S. (2020). Implementing effective SLO monitoring in high-volume data processing systems. *International Journal of Scientific Research in Computer Science, Engineering and Information Technology*, 6(2), 558. <http://ijsrcseit.com>
- [108] Kavuri, S., & Narne, S. (2021). Improving performance of data extracts using window-based refresh strategies. *International Journal of Scientific Research in Science, Engineering and Technology*, 8(5), 359-377. <https://doi.org/10.32628/IJSRSET>
- [109] Narne, S. (2023). Predictive analytics in early disease detection: Applying deep learning to electronic health records. *African Journal of Biological Sciences*, 5(1), 70–101. <https://doi.org/10.48047/AFJBS.5.1.2023>.

- [110] Narne, S. (2022). AI-driven drug discovery: Accelerating the development of novel therapeutics. *International Journal on Recent and Innovation Trends in Computing and Communication*, 10(9), 196. <http://www.ijritcc.org>
- [111] Rinkesh Gajera , "Leveraging Procure for Improved Collaboration and Communication in Multi-Stakeholder Construction Projects", *International Journal of Scientific Research in Civil Engineering (IJSRCE)*, ISSN : 2456-6667, Volume 3, Issue 3, pp.47-51, May-June.2019
- [112] Rinkesh Gajera , "Integrating Power Bi with Project Control Systems: Enhancing Real-Time Cost Tracking and Visualization in Construction", *International Journal of Scientific Research in Civil Engineering (IJSRCE)*, ISSN : 2456-6667, Volume 7, Issue 5, pp.154-160, September-October.2023.URL : <https://ijsrce.com/IJSRCE123761>
- [113] Rinkesh Gajera, 2023. Developing a Hybrid Approach: Combining Traditional and Agile Project Management Methodologies in Construction Using Modern Software Tools, *ESP Journal of Engineering & Technology Advancements* 3(3): 78-83.
- [114] Paulraj, B. (2023). Enhancing Data Engineering Frameworks for Scalable Real-Time Marketing Solutions. *Integrated Journal for Research in Arts and Humanities*, 3(5), 309–315. <https://doi.org/10.55544/ijrah.3.5.34>
- [115] Balachandar, P. (2020). Title of the article. *International Journal of Scientific Research in Science, Engineering and Technology*, 7(5), 401-410. <https://doi.org/10.32628/IJSRSET23103132>
- [116] Paulraj, B. (2022). Building Resilient Data Ingestion Pipelines for Third-Party Vendor Data Integration. *Journal for Research in Applied Sciences and Biotechnology*, 1(1), 97–104. <https://doi.org/10.55544/jrasb.1.1.14>
- [117] Paulraj, B. (2022). The Role of Data Engineering in Facilitating Ps5 Launch Success: A Case Study. *International Journal on Recent and Innovation Trends in Computing and Communication*, 10(11), 219–225. <https://doi.org/10.17762/ijritcc.v10i11.111451>
- [118] Paulraj, B. (2019). Automating resource management in big data environments to reduce operational costs. *Tuijin Jishu/Journal of Propulsion Technology*, 40(1). <https://doi.org/10.52783/tjjpt.v40.i1.7905>
- [119] Balachandar Paulraj. (2021). Implementing Feature and Metric Stores for Machine Learning Models in the Gaming Industry. *European Economic Letters (EEL)*, 11(1). Retrieved from <https://www.eelet.org.uk/index.php/journal/article/view/1924>
- [120] Bhatt, S. (2020). Leveraging AWS tools for high availability and disaster recovery in SAP applications. *International Journal of Scientific Research in Science, Engineering and Technology*, 7(2), 482. <https://doi.org/10.32628/IJSRSET207212>
- [121] Bhatt, S. (2023). A comprehensive guide to SAP data center migrations: Techniques and case studies. *International Journal of Scientific Research in Science, Engineering and Technology*, 10(6), 346. <https://doi.org/10.32628/IJSRSET2310630>
- [122] Kavuri, S., & Narne, S. (2020). Implementing effective SLO monitoring in high-volume data processing systems. *International Journal of Scientific Research in Computer Science, Engineering and Information Technology*, 5(6), 558. <https://doi.org/10.32628/CSEIT206479>

- [123] Kavuri, S., & Narne, S. (2023). Improving performance of data extracts using window-based refresh strategies. *International Journal of Scientific Research in Science, Engineering and Technology*, 10(6), 359. <https://doi.org/10.32628/IJSRSET2310631>
- [124] Swethasri Kavuri, " Advanced Debugging Techniques for Multi-Processor Communication in 5G Systems, *International Journal of Scientific Research in Computer Science, Engineering and Information Technology(IJSRCSEIT)*, ISSN : 2456-3307, Volume 9, Issue 5, pp.360-384, September-October-2023. Available at doi : <https://doi.org/10.32628/CSEIT239071>
- [125] Mehra, A. (2023). Strategies for scaling EdTech startups in emerging markets. *International Journal of Communication Networks and Information Security*, 15(1), 259–274. <https://ijcnis.org>
- [126] Mehra, A. (2021). The impact of public-private partnerships on global educational platforms. *Journal of Informatics Education and Research*, 1(3), 9–28. <http://jier.org>.
- [127] Ankur Mehra. (2019). Driving Growth in the Creator Economy through Strategic Content Partnerships. *International Journal for Research Publication and Seminar*, 10(2), 118–135. <https://doi.org/10.36676/jrps.v10.i2.1519>
- [128] Mehra, A. (2023). Leveraging Data-Driven Insights to Enhance Market Share in the Media Industry. *Journal for Research in Applied Sciences and Biotechnology*, 2(3), 291–304. <https://doi.org/10.55544/jrasb.2.3.37>
- [129] Ankur Mehra. (2022). Effective Team Management Strategies in Global Organizations. *Universal Research Reports*, 9(4), 409–425. <https://doi.org/10.36676/urr.v9.i4.1363>
- [130] Mehra, A. (2023). Innovation in brand collaborations for digital media platforms. *IJFANS International Journal of Food and Nutritional Sciences*, 12(6), 231. <https://doi.org/10.XXXX/xxxxx>
- [131] Ankur Mehra. (2022). Effective Team Management Strategies in Global Organizations. *Universal Research Reports*, 9(4), 409–425. <https://doi.org/10.36676/urr.v9.i4.1363>
- [132] Mehra, A. (2023). Leveraging Data-Driven Insights to Enhance Market Share in the Media Industry. *Journal for Research in Applied Sciences and Biotechnology*, 2(3), 291–304. <https://doi.org/10.55544/jrasb.2.3.37>
- [133] Ankur Mehra. (2022). Effective Team Management Strategies in Global Organizations. *Universal Research Reports*, 9(4), 409–425. <https://doi.org/10.36676/urr.v9.i4.1363>
- [134] Ankur Mehra. (2022). The Role of Strategic Alliances in the Growth of the Creator Economy. *European Economic Letters (EEL)*, 12(1). Retrieved from <https://www.eelet.org.uk/index.php/journal/article/view/1925>
- [135] V. K. R. Voddi, "Bike Sharing: An In-Depth Analysis on the Citi Bike Sharing System of Jersey City, NJ," 2023 6th International Conference on Recent Trends in Advance Computing (ICRTAC), Chennai, India, 2023, pp. 796-804, doi: 10.1109/ICRTAC59277.2023.10480792.
- [136] Bizel, G., Parmar, C., Singh, K., Teegala, S., & Voddi, V. K. R. (2021). Cultural health moments: A search analysis during times of heightened awareness to identify potential

interception points with digital health consumers. *Journal of Economics and Management Sciences*, 4(4), 35. <https://doi.org/10.30560/jems.v4n4p35>

[137] Reddy, V. V. K., & Reddy, K. K. (2021). COVID-19 case predictions: Anticipating future outbreaks through data. *NeuroQuantology*, 19(7), 461–466. https://www.neuroquantology.com/open-access/COVID-19+Case+Predictions%253A+Anticipating+Future+Outbreaks+Through+Data_14333/?download=tr

[138] Saoji, R., Nuguri, S., Shiva, K., Etikani, P., & Bhaskar, V. V. S. R. (2019). Secure federated learning framework for distributed AI model training in cloud environments. *International Journal of Open Publication and Exploration (IJOPE)*, 7(1), 31. Available online at <https://ijope.com>.

[139] Savita Nuguri, Rahul Saoji, Krishnateja Shiva, Pradeep Etikani, & Vijaya Venkata Sri Rama Bhaskar. (2021). OPTIMIZING AI MODEL DEPLOYMENT IN CLOUD ENVIRONMENTS: CHALLENGES AND SOLUTIONS. *International Journal for Research Publication and Seminar*, 12(2), 159–168. <https://doi.org/10.36676/jrps.v12.i2.146>

[140] Kaur, J., Choppadandi, A., Chenchala, P. K., Nuguri, S., & Saoji, R. (2022). Machine learning-driven IoT systems for precision agriculture: Enhancing decision-making and efficiency. *Webology*, 19(6), 2158. Retrieved from <http://www.webology.org>.

[141] Lohith Paripati, Varun Nakra, Pandi Kirupa Gopalakrishna Pandian, Rahul Saoji, Bhanu Devaguptapu. (2023). Exploring the Potential of Learning in Credit Scoring Models for Alternative Lending Platforms. *European Economic Letters (EEL)*, 13(4), 1331–1241. <https://doi.org/10.52783/eel.v13i4.1799>

[142] Etikani, P., Bhaskar, V. V. S. R., Nuguri, S., Saoji, R., & Shiva, K. (2023). Automating machine learning workflows with cloud-based pipelines. *International Journal of Intelligent Systems and Applications in Engineering*, 11(1), 375–382. <https://doi.org/10.48047/ijisae.2023.11.1.37>

[143] Etikani, P., Bhaskar, V. V. S. R., Palavesh, S., Saoji, R., & Shiva, K. (2023). AI-powered algorithmic trading strategies in the stock market. *International Journal of Intelligent Systems and Applications in Engineering*, 11(1), 264–277. https://doi.org/10.1234/ijsdip.org_2023-Volume-11-Issue-1_Page_264-277.

[144] Saoji, R., Nuguri, S., Shiva, K., Etikani, P., & Bhaskar, V. V. S. R. (2021). Adaptive AI-based deep learning models for dynamic control in software-defined networks. *International Journal of Electrical and Electronics Engineering (IJEEE)*, 10(1), 89–100. ISSN (P): 2278–9944; ISSN (E): 2278–9952

[145] Varun Nakra, Arth Dave, Savitha Nuguri, Pradeep Kumar Chenchala, Akshay Agarwal. (2023). Robo-Advisors in Wealth Management: Exploring the Role of AI and ML in Financial Planning. *European Economic Letters (EEL)*, 13(5), 2028–2039. Retrieved from <https://www.eelet.org.uk/index.php/journal/article/view/1514>

[146] Pradeep Kumar Chenchala. (2023). Social Media Sentiment Analysis for Enhancing Demand Forecasting Models Using Machine Learning Models. *International Journal on Recent and Innovation Trends in Computing and Communication*, 11(6), 595–601. Retrieved from <https://www.ijritcc.org/index.php/ijritcc/article/view/10762>

[147] Varun Nakra. (2023). Enhancing Software Project Management and Task Allocation with AI and Machine Learning. *International Journal on Recent and Innovation Trends in*

- Computing and Communication, 11(11), 1171–1178. Retrieved from <https://www.ijritcc.org/index.php/ijritcc/article/view/10684>
- [148] Lindiawati, Indrianawati, Astuti, S. W., Nuguri, S., Saoji, R., Devaguptapu, B., & Prasad, N. (2023). The Information Quality of Corporate Social Responsibility in Leveraging Banks CSR Reputation: A Study of Indonesian Banks. *International Journal for Research Publication and Seminar*, 14(5), 196–213. <https://doi.org/10.36676/jrps.v14.i5.1441>
- [149] V. K. R. Voddi, "Bike Sharing: An In-Depth Analysis on the Citi Bike Sharing System of Jersey City, NJ," 2023 6th International Conference on Recent Trends in Advance Computing (ICRTAC), Chennai, India, 2023, pp. 796-804, doi: 10.1109/ICRTAC59277.2023.10480792. keywords: {Costs;Shared transport;Urban areas;Sociology;Bicycles;Predictive models;Market research;component;formatting;style;styling;insert} <https://ieeexplore.ieee.org/document/10480792>
- [150] Reddy Voddi, V. K. (2023), "The Road to Sustainability: Insights from Electric Cars Project," *International Journal on Recent and Innovation Trends in Computing and Communication*, 11(11), 680–684. Keywords: Electric Vehicles, Sustainability, Environmental Impact, Battery Technology, Charging Infrastructure, Policy, Renewable Energy <https://doi.org/10.17762/ijritcc.v11i11.10071>
- [151] Vijay Kumar Reddy Voddi, Komali Reddy Konda(2022), "Success and Struggle: Countries that Minimized COVID-19 Cases and the Factors Behind Their Outcomes," *ResMilitaris*, Volume -12, Issue -5 (2022) Keywords: COVID-19, Pandemic Response, Public Health Strategies, Case Minimization, GlobalHealth,Epidemiology,<https://resmilitaris.net/issue-content/success-and-struggle-countries-that-minimized-covid-19-cases-and-the-factors-behind-their-outcomes-4043>
- [152] Vijay Kumar Reddy, Komali Reddy Konda(2021), "Unveiling Patterns: Seasonality Analysis of COVID-19 Data in the USA", Keywords: COVID-19, Seasonality, SARS-CoV-2, Time Series Analysis, Environmental Factors, USA, *Neuroquantology | October 2021 | Volume 19 | Issue 10 | Page 682-686* | Doi: 10.48047/nq.2021.19.10.NQ21219
- [153] Vijay Kumar Reddy, Komali Reddy Konda(2021), "COVID-19 Case Predictions: Anticipating Future Outbreaks Through Data" Keywords: COVID-19, Case Predictions, Machine Learning, Time Series Forecasting, Pandemic Response, Epidemiological Modeling, *NeuroQuantology | July 2021 | Volume 19 | Issue 7 | Page 461-466* | doi: 10.48047/nq.2021.19.7.NQ21136
- [154] Vijay Kumar Reddy Voddi, Komali Reddy Konda(2021), "Spatial Distribution And Dynamics Of Retail Stores In New York City," Pages: 9941-9948 Keywords: Retail Distribution, Urban Planning, Economic Disparities, Gentrification, Online Shopping Trends.<https://www.webology.org/abstract.php?id=5248>
- [155] T Jashwanth Reddy, Voddi Vijay Kumar Reddy, T Akshay Kumar (2018), "Population Diagnosis System," Published in *International Journal of Advanced Research in Computer and Communication Engineering (IJARCCE)*, Keywords: Apache Hadoop 1.2.1, Apache hive-0.12.0, Population Diagnosis System, My SQL. <https://ijarcece.com/upload/2018/february-18/IJARCCE%2038.pdf>