# EUROPEAN JOURNAL OF LIFE SAFETY AND STABILITY (EJLSS) ISSN2660-9630

www.ejlss.indexedresearch.org Volume 36, Dec-2023 //



# Relationship Between Employee Loyalty and Job Satisfaction in an Organization

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Abstract: For a long time, the idea that happy workers make good businesses has been around. However, due to a number of variables that affect organisational performance, companies in all industries and at all levels of the company should prioritise employee loyalty more than ever before. The difficulty lies not in recruiting workers, but in holding on to them. This study aims to provide light on the factors that employees, both at the executive and managerial levels, perceive as having the greatest influence on their organisational loyalty, as measured by job satisfaction. A theoretical framework was created to illustrate the relationships between the four components of employee happiness and loyalty, which were chosen after reviewing the literature and conducting empirical tests. Employees' perspectives on training, supervisor support, work environment, coworker relationships, and recognition and awards were gathered through qualitative interviews, which

served as the primary data source. Regardless of their job title or industry, employees appear to prioritise the same variables, according to the findings. There was a strong correlation between the office setting and factors including employee dedication, morale, recognition, and development opportunities. In order to lower staff turnover and boost loyalty, every company should investigate and comprehend their workers' requirements.

**Keywords:** Job satisfaction, employee loyalty, workplace environment, supervisor support, teamwork, recognition and rewards, training.

Date of Submission: 25-11-2023 Date of Acceptance: 18-12-2023

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### Introduction

A concept that has been universally regarded as being necessary for the success of an organisation is that of employee job satisfaction [1]. However, in today's world, enterprises should value employee loyalty more than ever before, regardless of the sector in which they operate or the position they hold, because a number of trends have an effect on the success of the firm [2]. The difficulty lies not in recruiting new workers but rather in keeping the ones we already have. Through work satisfaction and from the views of both high-level and lower-level employees, this study will provide insight into what employees feel to be the most important aspect that influences their loyalty to their firm [3]. After conducting a literature research and conducting empirical tests, a selection of four elements was made, and a theoretical framework was established to describe the relationships that exist between the four factors of employee happiness and loyalty [4-9]. In order to acquire primary data, qualitative interviews were conducted with employees to elicit their opinion on a variety of topics, including recognition and incentives, the environment of the workplace, the support provided by supervisors, co-worker relationships, and training [10]. According to the findings, employees appear to rank the importance of various elements in the same order, regardless of the position they hold at work or the sector to which they belong [11]. There was a considerable impact on loyalty, supervisor support and teamwork, recognition and awards, and training that was brought about by the environment of the workplace. Every employer is obligated to investigate and comprehend the requirements of their workforce in order to decrease job turnover and boost employee loyalty [12].

In addition, different corporate factors can be affected favorably or adversely by employee commitment and happiness. Employee satisfaction issues can be reflected in efficiency, sales, turnover, engagement, expenses and consumer satisfaction issues. As pointed out in their book entitled "Why Loyalty Matters, "they made it plain that in difficult times, executives typically prefer to cut down their labour costs named "hard numbers" without reflecting on the "soft numbers," which are the workers, mainly their economic worth to the company [13-17]. Corporation's loyalty for their employee mustn't be available, especially in difficult times, contributing to employee disloyalty; so in our days, disloyalty has been a two-way path. According to a study conducted using the American Customer Satisfaction Index, downsizing contributed not only to employee frustration and disloyalty but also to consumer discontent and disloyalty [18-22].

The Human Resource Social Network published an article with the headline "Measure employee engagement and alignment instead of satisfaction," which provided additional evidence in support of this claim. It was reported that employee defection contributes seventy percent of the factors why customers desert as well, leaving the company with a significant price to pay [23-28]. The findings of the employee engagement survey are, as was mentioned, primarily mirror copies of what is going on with customers. In addition, the high turnover rate of employees comes with a high price tag. If an employee were to leave their position, it would cost 150 percent of their total pay [29-30]. This is after taking into account all aspects, such as the costs of hiring new employees, the length of time it would take for them to become familiar with the basics and blend in with the team. Furthermore, efficiency decreases since frequent turnovers and downsizing would have a negative impact on the morale of other employees, and no one would go the additional mile to compensate for the increased workload [31-33].

An additional argument is that frequent employee turnover can have an effect on the culture and reputation of an organisation. This is because rumor-filled paranoia can change the way that other people feel about the business, which in turn can have a negative impact on the social success of the organisation. Customers' perceptions of a company are influenced by its workforce [34-37]. Furthermore, the research that was carried out at the University of Pennsylvania demonstrated that productivity could be increased by more than twice the amount that was spent on developing employees rather than on capital improvement. This is yet another indication of the significance of attaching a higher level of importance to the human factor. This is an illustration of the connection between the contentment of employees and the profitability of the organisation [38-41]. Organizations have the ability to maintain their dedication to their workers in order to persevere through challenging times [42-47]. Because of the causes that have been described above, as well as the costs that businesses incur as a result of disloyal employees, businesses are at a point where they are required to pose unsettling questions regarding how they should remain faithful to their employees and vice versa [48].

#### Statement of the Problem

When it comes to the corporate environment, the way in which organisations conduct their business has changed. The inclination of CEOs to attract and, more importantly, retain their workforce, which is the lifeblood of their organisation, as a result of globalisation, the desire for knowledge in the workplace, and the quickly expanding technological advancements [49-55]. Furthermore, in order to maintain competitiveness, consolidation, and contraction during times of difficulty, it would be necessary for committed workers to remain with the company and maintain its output rather than leaving in search of better financial opportunities. Because of this, the satisfaction of workers is no longer a significant factor in the long-term functioning of any organisational entity. If managers are unable to comprehend the factors that maximise the commitment of their employees, they should acknowledge the fact that their employees are loyal and dedicated and attempt to improve their level of commitment. If supervisors are involved, this will not be done [56-61].

A brief investigation of the loyalty of employees is typically performed. Previous studies attempted to explain and examine the various factors that influence loyalty by attempting to connect them to other elements and theories [62-69]. After that, they compared these factors according to the connection between commitment to workers and the situation in which they are working. The trials have also been conducted in a great number of nations outside of the United States [70-73]. An insufficient number of inquiries concerning the loyalty of workers have been conducted in the Arab region. In addition, the dedication of workers is not researched nearly as extensively, and very little consideration is given to it. Therefore, the purpose of this research would be to investigate the many elements that influence the loyalty of employees from the perspective of both employers and employees [74-79].

# **Employee Loyalty**

A person's level of dedication to their job has traditionally been evaluated based on the number of years they have been employed by the company. Managers want their employees to remain loyal to the firm, and employees who are employed feel that they will continue to work for the company even after they have resigned from their positions. The meaning of the term "allegiance" began to develop gradually throughout time [80-85]. Still, by the 1980s, As a consequence of economic transitions, employers sought to decrease expenses and maximise income by breaching their reciprocal commitments to workers, who recognised that the idea of living jobs would cease to be implemented but would have become the trending phenomenon, as a consequence of stagnant remuneration, transfer, turn-over, and hopping. Employees are making concerted efforts to improve the conditions of their workplace [86-91].

# **Employee Loyalty definition**

The loyalty of employees was described in a variety of ways, and these descriptions came from the perspectives of multiple authors. The strength of the bond between an employer and an employee, as well as the employee's allegiance, is what we mean when we talk about loyalty [92-99]. Loyalty: The commitment of employees must be in accordance with the principles, priorities, and objectives of the organisation. This assures that the employees agree with and have faith in the mission of the firm, and that they will do everything in their power to uphold and maintain it [100].

Loyal employees are not only those who remain with the firm, but also those who do not look for other employment possibilities or are not likely to leave the organisation, even if they are presented with greater opportunities elsewhere [101-105]. The psychological condition of an employee relationship is what is meant by the term "loyalty." Furthermore, the acts of employees as devoted individuals who protect and secure their organisation during difficult times by working with other employees, so adding to their status, are linked to the loyalty of employees. At that time, this was accepted, and the concept of loyalty was applied to the actions of workers rather than their attitudes [106-111].

An employee's attachment and dedication to a certain cause or obligation, as articulated, constitutes anchored allegiance on the side of the employee to continue working for the organisation. Actions and emotions are the means by which one demonstrates his allegiance as a

sign of interest [112-117]. Furthermore, pride and support for the company are shown as being attacked and blamed by demonstrating its desirable character, which has witnessed fidelity to one's activities. This is done in case the company is attacked. Allegiance, on the other hand, is a form of interpersonal nationality that indicates the human support for the association [118-121].

# **Loyalty Dimensions**

A component of inner-emotional and an element of external-competent elements are frequently included in loyalty. Through actions that are complementary to one another, the first must be cultivated in order to bring about the second. To provide an explanation for the commitment of the company to its employees, the three-factor model has been constructed out of three components [122-125].

Fidelity of an emotional or influencing nature: trustworthiness the degree to which an employee believes that the environment at work promotes flexibility, decision-making involvement, the value of his role and the required expertise for their task, and, most importantly, the presence of oversight and direction is influenced by the emotional attachment that the employee has to the organisation and the desire to achieve the goals that the organisation has set for itself [126-131].

What is meant by the term "standard fidelity" is fidelity to morals. The level of commitment and interest that employees have in remaining with the company is shown by this aspect. Not only does this improve when organisations have resources to aid in the execution of the procedure, but it also improves when they have resources to prepare decision-making and the establishment of priorities [132-137].

Allegiance continued: This dimension is used to quantify the value that can be lost by an individual as they leave the organisation or the value that they have earned after participating in the firm and staying with it [138].

Following the investigation into the factor, it was determined that loyalty is a psychiatric condition that is tied to the degree of commitment that an individual has to his company [139]. In order for someone to assess and appreciate their contact with his company, as well as vice versa, such measurements are also something which should be taken into consideration [140].

### **Job Satisfaction**

Joy in one's work is not a contemporary concept. For as long as anybody can remember, their forefathers have been the ones who determine what constitutes a fulfilling work experience. For the purpose of enhancing the strategic advantage and competitiveness of enterprises, it continues to be a vital corporate aim [141-143]. The Hawthorne effect is the first and most commonly acknowledged paradigm that contributed to the development of the concept of happiness at work. It was developed by the Hawthorne influence. That people work rather than being compensated has been demonstrated by this [144-147]. Numerous experiments have also begun to debate this subject and discover different conceptions of work contentment and determinants. As a result, this topic has become the principal focus of a number of management research [148].

One of the most prevalent definitions of job satisfaction is the pleasurable good emotional status that one perceives to be associated with their work experience. In this definition, the primary emphasis is placed on the internal aspects of an individual's feelings [149]. As a result of the difference in contrasting one's psychological condition with specific individual qualities and knowledge with some workers, it removes the environmental factors that are associated with those feelings. Physiology, psychology, and the environment all play a role in determining contentment in one's work. The contention is that there are a number of facets of work satisfaction that can either provide employees with a positive or negative feeling. The level of contentment that employees feel they have received from the organisation in terms of meeting their requirements.

Self-characterization of workers: Higher levels of happiness are associated with higher levels of conformance with the characteristics of the work environment, as well as higher levels of self-characterization of workers in terms of their personality, values, and skills/desires. Employees are attaining higher levels of excellence in their educational pursuits and acquiring new skills and capabilities, which contributes to increased aspirations and an improved positive view of themselves. Workers were therefore pushed to anticipate more from their organisation in exchange for the supervisory help and substantive benefits they gain as a result of their own self-performance. For example, in order to promote the happiness of workers, it is necessary for supervisory activities and freedom of workers to be compatible. This is because the acts of supervisors that are oppressive reduce happiness.

Calls from Society Work Compatibility: The essence of the workload and timeline that is established by the workplace may induce unhappiness among workers who are prepared to change their jobs if they are an obstacle to their social demands. This is because their occupations pose a challenge to their social needs. When compared to the actions of other managers, the morale of workers is severely impacted by superfluous corporate schedules, mergers, promotions, and reorganisations. Consequently, this has a significant impact on the psyche of their employees. It is equally important for managers to be aware of the effects that the social community has on the satisfaction of their employees. Work and market predictability: Employer instability in terms of weak reward structures, recurrent intergroup clashes, unhealthy anxiety, timespan stresses, extreme interpersonal confrontation conditions, unclear processes for decision-making, and unpredictable results are some of the factors that contribute to job satisfaction, as staff begins to seek for better opportunities elsewhere in a secure working setting.

In order to answer the question of what makes individuals happy and what does not, research was conducted. Through the use of interviews, Herzberg was able to conclude that there are two primary elements that influence individuals' levels of satisfaction in the workplace: the drivers and the so-called hygiene aspects. His study was consequently labelled as a distinction between the elements, namely the motivators and the triggering discontent described as hygiene causes, known as the motivational-hygiene hypothesis. This differentiation was made in order to distinguish between the factors. Motivational factors include performance, the quality of the job, gratitude, accountability, and improvement. These factors are embedded into the motivators. Comparatively, the hygiene factors encompass all of the management methods, salary, job settings, help from superiors, and interpersonal ties that are involved.

Experiments of varying kinds have also been carried out in order to broaden the scope of the factors that may have an effect on the degree to which one enjoys their employment. There is a strong correlation between satisfaction and promotion, remuneration, and autonomy, which are the three most important characteristics. As a result of their research, they came to the conclusion that the characteristics of salaries and income structures, the quality of jobs, and the interaction between the employer and workers all have a direct impact on workplace satisfaction, which in turn influences organisational participation and fidelity.

The loyalty and retention of employees is the very foundation upon which an organization's performance is built. The administrator ought to be aware of the factors that are responsible for these two factors. Studies also made it possible to classify drivers according to the social, physical, and mental variables they are subjected to. To put it another way, regardless of whether the touch is internal or external, working environments, remuneration, and compensation schemes frequently acknowledge the necessity for employees to make use of their abilities in the performance of their jobs. The formation of these individuals was not the result of a single factor but rather of a confluence of factors, which may include factors such as salary, progression, compensation schemes, promising assistance and job climate, and preparation.

The aforementioned is connected to eight different aspects: remuneration and award systems, physical places for employment, amenities, and services, job development opportunities, supervisory partnerships, protection, and the attitude of the corps department. A number of factors, including salary, benefits, and compensation, job performance, and work collaboration, are significantly impacted by the proposal, having a significant impact on employee satisfaction and subsequent commitment. Including but not limited to: worker relations, demographics, recruiting method, results management, organisation, emotional fatigue, reward, wages/pays, activism, acknowledgment of working standards, supervisors' assistance, worker growth, contact, family-friendly, work-related, and compatible relationships.

### **Participants**

During the course of this qualitative investigation, the majority of the interviews were conducted over the phone. The interview for the study was selected and hired by the participants with great care. In order to respond to research and inquiry inquiries, three out of six researchers must be named as bosses, administrators, department leaders, or even owners. Additionally, they must have worked for the same firm for a minimum of two consecutive years. Furthermore, it was intriguing to explore a wider range of perspectives by collecting data from participants who had a variety of experiences and employment in a number of different businesses and sectors for the purpose of doing research. Because we want to protect the participants' anonymity, we do not list their full identities; the only information that is not included is their name and the organization's identification number.

Elias has established himself as a lengthy owner and shoe manager over the past seventeen years. As a result of the business skills he obtained while travelling abroad, he was able to successfully run his own company many years earlier, ensuring that both his customers and his employees remained loyal and satisfied. CRN and the Branch of Corporate Intelligence are the

individuals in charge of the Data Warehouse. Because of the Bank's presence in multiple countries and the job that Gracia does, it has a significant amount of work to do. Additionally, it is necessary for her to provide training to newly hired carpenters in her department and to establish a departmental structure in other departments around the nation.

A survey of the relevant literature revealed that there are four primary factors that are directly connected to the happiness of workers. These factors have an effect on the commitment of employees, which can be observed by their behaviour. Appreciation and recognition, encouragement for managers and partners, environment inside the firm, and preparation were some of the factors that were taken into consideration. The emerging results would be investigated and analysed in each issue, with the questions posed by the participants and the findings of existing observational studies serving as the basis for the investigation.

During this question, which was posed at the conclusion of the interview, the participants were asked to identify the variables that were discussed before, with a score between 1 and 4 representing the most important factor in their loyalty to your firm. The majority of the participants, five out of six, believed that the atmosphere of the workplace had the most significant impact on their level of commitment. This was also taken into consideration in the belief that individuals would demonstrate their commitment to organisations that provide great working practises that respect and acknowledge workers. According to the opinions of the participants, the latter was accepted, and some of the aspects that were discussed were equitable workload, decision-making, feedback, reduction of overtime, and other similar topics. Gracia, who has been working for the same company for the past 29 years, has noticed that her ability to make decisions has increased, which has motivated her to continue working there for a more extended period of time.

Another key component that played a role in shaping employees' loyalty through work satisfaction was the assistance provided by the boss and the connections that were made between coworkers. If the manager places a higher priority on their efforts and well-being, they will quit their job and increase their support for the company. This notion has been accepted by them, and they are of the opinion that staff turnover rates will decrease so long as they are known, defined, and invested in the operations of the corporation. This profound sense of belonging will lead to practical participation and a willingness to fulfil the organization's goals, which will ultimately result in the organization's success. The people who took part in the test ranked this as the fourth best option. According to what they found, managers will quit their representatives rather than their functions if they conduct in a manner that is similar to that of superiors. Despite this, they show little concern for the emotions or perspectives of the workers, such as Raquel, a supervisor who has taken credit for the job that was done after the employee's work and has not provided her with any good new insights. Pamela is going to leave her boss since she is being treated unfairly at work. Both of the participants stressed the relevance of their oversight position and emphasised that it should serve as a model for organisations to follow in order to promote the spirit of collaboration and the vision toward which they have evolved.

The reduction of employee turnover and the enhancement of employee commitment can be accomplished by supervisors who encourage contact and supportive staff interactions. When it comes to cooperation, the workers take pleasure in and continue to maintain help, inspiration,

respect, and friendliness. This is the most effective method for retaining them as skilled employees. They have the ability to immediately stop another job, but they never have the same character of teams. All of the interviewees have contributed something of value to the process of working together in order to achieve the goals of the organisation (trusting each other, feeling calm while operating, connecting with one another, and organising work).

Workers, on the other hand, are fascinated with identifying incentives and other considerations, as evidenced by the fact that four out of six participants placed this in the third position. These findings have been demonstrated by the studies, which demonstrate that three of the participants were willing to make improvements because they were dissatisfied and believed that they were not rewarded for their labour and in terms of comparison. Two of the participants witnessed this. It has been determined that this reasoning is correct, and the money is not being used as a significant retention motivation. In accordance with what Elias and Raquelle have described, the replies of participants that are given in the form of informal appreciation cause them to feel more valued and appreciated. For instance, Eliana expressed her dissatisfaction and anger with her organisation, as well as her formal and informal praise and award plan that she had implemented.

To conclude, training and progress are the final elements, with four out of six individuals placing the least importance on this component and the effect it has on loyalty. Training has an effect on satisfaction and loyalty because it introduces new knowledge, keeps employees up-to-date, and employs knowledge to improve performance and sustainability in this competitive environment. It is a loyalty sign from companies to develop its employees, as mentioned by those who believed that training is a sign of organisation commitment. These are some of the major elements that constitute this factor, according to the participants for whom the interview was conducted. Due to the fact that three of the participants were unwilling to change their jobs as a result of the knowledge they gained and the transmission of information, two of the participants were hesitant due to other factors, and Raquelle was unable to remain in the organisation even if training opportunities were offered to her because she was not well-loved after he received his reward, training was considered an essential factor in retaining its staff in this regard. It has been stated by corporations that there is a correlation between compensation increases and increased employee productivity.

## Conclusion

In order to obtain an accurate representation of the general population, researchers could not only increase the demographic number of the subjects they interviewed, but they could also increase the field of geography of those subjects. Additionally, they could incorporate some additional considerations into their analysis after reviewing the relevant literature and empirical findings. There are more research and methods of data collection that can potentially be used to verify the results. These are some of the recommendations made by the department of strategy and resources: It is still important for businesses to conduct loyalty evaluations in order to maintain their healthy and lucrative workforce and to gain an understanding of the factors that employees consider to be essential for maintaining their loyalty. As a result of the findings of this study, which indicate that preparation is a minor adequate consideration for loyalty, management can operate in this sector and demonstrate their commitment to their employees by means of their ongoing training

programmes. This will allow the employees to learn and improve their success in accordance with the findings. A safe and supportive working environment should boost the morale and trust of employees, provide additional benefits, and enable employees to work together as a team to achieve shared goals. Through their day-to-day activities and the decisions they make, employees need to have the conviction that their position within the company is of the utmost importance, and that any actions they do are crucial to the ongoing development of the organisation. The emotional connection between employees and the business is essential because employees are strongly encouraged by the firm's commitment to being valued. There is no need for corporations, such as the power that you would recommend this firm to others, to feel embarrassed about asking their employees difficult questions. How much would you recommend a friend to your employer, if you were to do so? During an exit interview, managers frequently learn about employees' intentions to quit the company and attempt to convince them to do so. It is possible for compensation to be precise and to function and overload those who are employed. Because no one ever forgets how someone has made them feel, it is imperative that informal appreciation receives a greater amount of attention.

## References

- 1. D. Damodaran, K. Rangarajan, and P. J. D. Paul, "A comparative study of efficient lending by Indian commercial banks," Int. J. Eng. Manag. Res., vol. 4, no. 4, pp. 54–58, 2014.
- 2. D. Damodaran, "A Linkage Between Service Quality And Customer Satisfaction By Indian Commercial Banks," Journal of Engineering & Management International Research, vol. 8, no. 3, pp. 1957–1962, 2017.
- 3. D. Damodaran, "Customer Shift From E- Banking To M-Banking In State Bank Of India: A Study To Identify Influencing Factors Causing The Change In Behaviour," Indian Journal of Public Health Research & Development, vol. 9, no. 11, pp. 134–139, 2018.
- 4. Chahal, S. (2021). Effective Monitoring with The Use of Blockchain Technology. International Journal of Computer Engineering And Technology (IJCET), 12(3), 46–55.
- 5. Chahal, S. (2022). Deep learning for early detection of disease outbreaks. International Journal of Science and Research, 11(11), 1489–1495.
- 6. Chahal, S. (2022). Market open process: Navigating global markets: Launching a Cross-Border Mutual Fund business. International Journal of Science and Research, 11(10), 1341–1350.
- 7. Chahal, S. (2022). The ROI of HR Digital Transformation: Boosting Efficiency & Savings for SMEs with EMS. International Journal of Science and Research, 11(5), 2084–2089.
- 8. Chahal, S. (2023). A System Based On Ai And MI Enhanced To Investigate Physiological Markers For User Forecasting Decision-Making. Semiconductor Optoelectronics, 42(1), 1324-1335.

- 9. Chahal, S. (2023). Agile Methodologies for Improved Product Management. Journal of Business and Strategic Management, 8(4), 79-94.
- 10. Kumar, J., Rana, S., Rani, G., & Rani, V., "How phygital customers' experience transforms the retail banking sector? Examining customer engagement and patronage intentions," Competitiveness Review: An International Business Journal. November 2023, November 2023, Available online.
- 11. Kumar, J., Rana, S., Rani, V., & Ahuja, A, "What affects organic farming adoption in emerging economies? A missing link in the Indian agriculture sector," International Journal of Emerging Markets, October 2023.
- 12. Kumar, J., Rani, M., Rani, G., & Rani, V., "What do individuals know, feel and do from a financial perspective? An empirical study on financial satisfaction". International Journal of Social Economics. November 2023.
- 13. Kumar, J. and Ahuja, A., "Financial inclusion: Key determinants and its impact on financial well-being". Global Business and Economics Review, July 2023.
- 14. Kumar, J. and Anjali, A., "Role of the Internet of Things (IoT) in Digital Financial Inclusion". In IoT Based Smart Applications (pp. 363-373). October 2022, Cham: Springer International Publishing.
- 15. Kumar, J. and Neha, P. "Patient Satisfaction in Out Patient Departments (OPDs): An Investigative Study in Government Hospitals of Haryana". October 2016, AAYAM: AKGIM Journal of Management, vol. 6, no. 2, pp. 8.
- 16. Kumar, J., and Swami, R., "Professional Reformation of Business: The Case of an Existing Family Business". Drishtikon: A Management Journal, September 2017, vol. 8, no. 2, pp. 43-56.
- 17. Kumar, J., and Bansal, G., "Challenges and Opportunities of Internet Banking Adoption: Evidences from India". Asian Journal of Research in Business Economics and Management, September 2017, vol. 7, no. 8, pp. 29-41.
- 18. Kumar, J., "Behavioural Finance-Literature Review Summary and Relevant Issues". AAYAM: AKGIM Journal of Management, October 2019, vol. 9, no. 1, 42-53. [Accessed October 15, 2023].
- 19. Kumar, J., Pal, K., Mahapatra, S. N., and Kundu, S. S., "Altman's model for predicting business failure: case study of HAFED". Abhigyan, October 2011, vol. 29, no. 3, pp. 52-62.
- 20. Pal, K., and Kumar, J., "Economic value added vis-à-vis thinking of Indian corporate managers: a survey analysis". International Journal of Financial Management, July 2011, vol. 1, no. 3, pp. 19.
- 21. Chahal, S. (2023). AI-Enhanced Cyber Incident Response and Recovery. International Journal of Science and Research, 12(3), 1795–1801.
- 22. Chahal, S. (2023). Harnessing AI and machine learning for intrusion detection in cyber security. International Journal of Science and Research, 12(5), 2639–2645.
- 23. Chahal, S. (2023). Mutual Fund Product Launch Process Setup and Automation: Streamlining Spreadsheet Workflows: A Case Study. Journal of Economics & Management Research. SRC/JESMR-253, (4), 196, 2-7.

- 24. Chahal, S. (2023). Navigating Financial Evolution: Business Process Optimization and Digital Transformation in the Finance Sector. International Journal of Finance, 8(5), 67-81.
- 25. Chahal, S. (2023). Optimized Data Management Using Energy Efficient IOT Data Compression Framework with Edge Machine Learning. https://seer-ufu-br.online/index.php/journal/article/view/439
- 26. Chahal, S. (2023). The critical application of internet of things (IoT) in the overall development of education. Proceeding International Conference on Science and Engineering, 11(1).
- 27. Chahal, S. (2023). Unlocking Educational Excellence: A Digital Transformation Approach through Business Process Optimization and the Role of Agile Project Management to Overcome Barriers to Successful Transformation. Journal of Economics & Management Research. SRC/JESMR-250, (4), 193, 2-5.
- 28. D. Damodaran, "Consumers' Behaviour with Respect To adoption of M-Banking Services in Tamil Nadu," International Journal of Recent Technology and Engineering, vol. 7, pp. 339–344, 2019.
- 29. D. Damodaran, "The Impact of The Colour Of The Packaging Influencing The Buyer's Purchase Intent," International Journal of Recent Technology and Engineering, vol. 8, no. 4, pp. 8822–8826, 2019.
- 30. D. Damodaran, "Block Chain Technology In Banking System," Gis science journal, vol. 9, no. 7, pp. 799–805, 2021.
- 31. Gaurav Kumawat, Santosh Kumar Viswakarma, Prasun Chakrabarti, Pankaj Chittora, Tulika Chakrabarti, Jerry Chun-Wei Lin, "Prognosis of Cervical Cancer Disease by Applying Machine Learning Techniques", Journal of Circuits, Systems, and Computers, 2022.
- 32. Akhilesh Kumar Sharma, Gaurav Aggarwal, Sachit Bhardwaj, Prasun Chakrabarti, Tulika Chakrabarti, Jemal Hussain, Siddhartha Bhattarcharyya, Richa Mishra, Anirban Das, Hairulnizam Mahdin, "Classification of Indian Classical Music with Time-Series Matching using Deep Learning", IEEE Access, 9:102041-102052, 2021.
- 33. Akhilesh Kumar Sharma, Shamik Tiwari, Gaurav Aggarwal, Nitika Goenka, Anil Kumar, Prasun Chakrabarti, Tulika Chakrabarti, Radomir Gono, Zbigniew Leonowicz, Michal Jasiński, "Dermatologist-Level Classification of Skin Cancer Using Cascaded Ensembling of Convolutional Neural Network and Handcrafted Features Based Deep Neural Network", IEEE Access, 10: 17920-17932, 2022.
- 34. Abrar Ahmed Chhipa, Vinod Kumar, R. R. Joshi, Prasun Chakrabarti, Michal Jaisinski, Alessandro Burgio, Zbigniew Leonowicz, Elzbieta Jasinska, Rajkumar Soni, Tulika Chakrabarti, "Adaptive Neuro-fuzzy Inference System Based Maximum Power Tracking Controller for Variable Speed WECS", Energies, 14(19):6275, 2021.
- 35. Prince, Ananda Shankar Hati, Prasun Chakrabarti, Jemal Hussein, Ng Wee Keong, "Development of Energy Efficient Drive for Ventilation System using Recurrent Neural Network", Neural Computing and Applications, 33:8659, 2021.

- 36. Ashish Kumar Sinha, Ananda Shankar Hati, Mohamed Benbouzid, Prasun Chakrabarti, "ANN-based Pattern Recognition for Induction Motor Broken Rotor Bar Monitoring under Supply Frequency Regulation", Machines, 9(5):87, 2021.
- 37. Chakrabarti P., Bhuyan B., Chaudhuri A. and Bhunia C.T., "A novel approach towards realizing optimum data transfer and Automatic Variable Key(AVK)", International Journal of Computer Science and Network Security, 8(5), pp.241-250, 2008.
- 38. Chakrabarti P., Goswami P.S., "Approach towards realizing resource mining and secured information transfer", International Journal of Computer Science and Network Security, 8(7), pp.345-350, 2008.
- 39. Chakrabarti P., Choudhury A., Naik N., Bhunia C.T., "Key generation in the light of mining and fuzzy rule", International Journal of Computer Science and Network Security, 8(9), pp.332-337, 2008.
- 40. Chakrabarti P., De S.K., Sikdar S.C., "Statistical Quantification of Gain Analysis in Strategic Management", International Journal of Computer Science and Network Security,9(11), pp.315-318, 2009.
- 41. Chakrabarti P., Basu J.K., Kim T.H., "Business Planning in the light of Neuro-fuzzy and Predictive Forecasting", Communications in Computer and Information Science, 123, pp.283-290, 2010.
- 42. Prasad A., Chakrabarti P., "Extending Access Management to maintain audit logs in cloud computing", International Journal of Advanced Computer Science and Applications ,5(3),pp.144-147, 2014.
- 43. Sharma A.K., Panwar A., Chakrabarti P., Viswakarma S., "Categorization of ICMR Using Feature Extraction Strategy and MIR with Ensemble Learning", Procedia Computer Science, 57,pp.686-694,2015.
- 44. Patidar H., Chakrabarti P., "A Novel Edge Cover based Graph Coloring Algorithm", International Journal of Advanced Computer Science and Applications, 8(5),pp.279-286,2017.
- 45. Patidar H., Chakrabarti P., Ghosh A., "Parallel Computing Aspects in Improved Edge Cover based Graph Coloring Algorithm", Indian Journal of Science and Technology ,10(25),pp.1-9,2017.
- 46. Tiwari M., Chakrabarti P, Chakrabarti T., "Novel work of diagnosis in liver cancer using Tree classifier on liver cancer dataset (BUPA liver disorder)", Communications in Computer and Information Science, 837, pp.155-160, 2018.
- 47. Verma K., Srivastava P., Chakrabarti P., "Exploring structure oriented feature tag weighting algorithm for web documents identification", Communications in Computer and Information Science ,837, pp.169-180, 2018.
- 48. Tiwari M., Chakrabarti P, Chakrabarti T., "Performance analysis and error evaluation towards the liver cancer diagnosis using lazy classifiers for ILPD", Communications in Computer and Information Science, 837, pp.161-168,2018.
- 49. Patidar H., Chakrabarti P., "A Tree-based Graphs Coloring Algorithm Using Independent Set", Advances in Intelligent Systems and Computing, 714, pp. 537-546, 2019.

- 50. Chakrabarti P., Satpathy B., Bane S., Chakrabarti T., Chaudhuri N.S., Siano P., "Business forecasting in the light of statistical approaches and machine learning classifiers", Communications in Computer and Information Science, 1045, pp.13-21, 2019.
- 51. Shah K., Laxkar P., Chakrabarti P., "A hypothesis on ideal Artificial Intelligence and associated wrong implications", Advances in Intelligent Systems and Computing, 989, pp.283-294, 2020.
- 52. Kothi N., Laxkar P. Jain A., Chakrabarti P., "Ledger based sorting algorithm", Advances in Intelligent Systems and Computing, 989, pp. 37-46, 2020.
- 53. Chakrabarti P. ,Chakrabarti T., Sharma M., Atre D, Pai K.B., "Quantification of Thought Analysis of Alcohol-addicted persons and memory loss of patients suffering from stage-4 liver cancer", Advances in Intelligent Systems and Computing, 1053, pp.1099-1105, 2020.
- 54. Chakrabarti P., Bane S., Satpathy B., Goh M, Datta B N, Chakrabarti T., "Compound Poisson Process and its Applications in Business", Lecture Notes in Electrical Engineering, 601, pp.678-685,2020.
- 55. Chakrabarti P., Chakrabarti T., Satpathy B., SenGupta I. Ware J A., "Analysis of strategic market management in the light of stochastic processes, recurrence relation, Abelian group and expectation", Advances in Artificial Intelligence and Data Engineering, 1133, pp.701-710, 2020.
- 56. Priyadarshi N., Bhoi A.K., Sharma A.K., Mallick P.K., Chakrabarti P., "An efficient fuzzy logic control-based soft computing technique for grid-tied photovoltaic system", Advances in Intelligent Systems and Computing, 1040,pp.131-140,2020.
- 57. Priyadarshi N., Bhoi A.K., Sahana S.K., Mallick P.K., Chakrabarti P., Performance enhancement using novel soft computing AFLC approach for PV power system", Advances in Intelligent Systems and Computing, 1040, pp.439-448,2020.
- 58. Magare A., Lamin M., Chakrabarti P., "Inherent Mapping Analysis of Agile Development Methodology through Design Thinking", Lecture Notes on Data Engineering and Communications Engineering, 52, pp.527-534,2020.
- 59. M. Sathish and K. P. Naachimuthu, "Effectiveness of Sales Promotion in FMCG Retail Stores- Study with reference to Coimbatore city," Global Management Review, vol. 5, no. 4, pp. 84-95, Aug. 2011.
- 60. K. Kalaiselvan and K. P. Naachimuthu, "A Synergetic Model to Training & Development," Indian Journal of Industrial Relations, vol. 47, no. 2, pp. 366-379, Oct. 2011.
- 61. K. Kalaiselvan and K. P. Naachimuthu, "Relationship Matrix: A Social Psychological approach," Indian Journal of Health and well-being, vol. 2, no. 3, pp. 602-608, 2011.
- 62. K. P. Naachimuthu and K. P. Kalaiselvan, "Applying Wisdom Domain Framework To Indian Organizations: A Philosophical Inquiry," Global Management Review, vol. 6, no. 1, pp. 32-41, Nov. 2011.
- 63. K. P. Naachimuthu and K. P. Kalaiselvan, "Management lessons from Thirukkural," International Journal of Management and Business Strategy, vol. 1, no. 1, pp. 58-71, 2012.

- 64. K. P. Naachimuthu, "Learning Organization Survey in Private and Government Aided educational institutions A Comparative study," GITAM Journal of Management, vol. 11, no. 3, pp. 210-220, Jul.-Sep. 2013.
- 65. K. P. Naachimuthu, "Sustainable Agriculture-The India Way," Journal of Rural and Industrial Development, vol. 3, no. 1, pp. 25-32, Apr. 2015.
- 66. K. P. Naachimuthu and Sri Andal (alias) Oormila, "Leadership and Change Management initiative in Higher Education," ITM Journal of Management, vol. 9, no. 2, pp. 66-96, Aug. 2015.
- 67. K. Kalaiselvan and K. P. Naachimuthu, "Strategic Approach to Talent Management: A Theoretical Model," Journal of Contemporary Research in Management, vol. 11, no. 1, pp. 1-22, 2016.
- 68. S. Sailakumar and K. P. Naachimuthu, "A Phenomenological Approach to Understand the Nature-Based Experiences and Its Influence on Holistic Development," Indian Journal of Positive Psychology, vol. 8, no. 2, pp. 186-195, 2017.
- 69. R. Sruthy and K. P. Naachimuthu, "Family Relationship and General Wellbeing of Adolescence and Young Adults," Indian Journal of Health and Well-being, vol. 8, no. 7, pp. 674-679, 2017.
- 70. G. Nagarajan and K. P. Naachimuthu, "A Phenomenological Approach to Understand the Concept of Child Adoption with Adoptive and Non-Adoptive Couples," Indian Journal of Community Psychology, vol. 13, no. 2, pp. 229-261, 2017.
- 71. K. R. Shobanah and K. P. Naachimuthu, "A Study on Grit among MBA, MBBS, and Engineering Students," International Journal of Education and Psychological Research, vol. 6, no. 2, pp. 43-47, 2017.
- 72. K. P. Naachimuthu and N. Ramkumar, "Perceived Loneliness and Its Effect on General Mental Health of Passenger and Goods Guards in Southern Railways," Indian Journal of Health and Well-being, vol. 8, no. 9, pp. 995-1000, 2017.
- 73. K. P. Naachimuthu, S. Bhuvaneshwari, and G. Sebastian, "PSG Eco-Literacy Scale (Revised 2017)," International Journal of Social Sciences, vol. 5, no. 4, pp. 581-587, 2017.
- 74. A. Correya and K. P. Naachimuthu, "Developing and Validating PSG Emotional Maturity Scale," Indian Journal of Community Psychology, vol. 1, no. 2, pp. 347-372, 2018.
- 75. N. S. Shruthi Keerthika and K. P. Naachimuthu, "Developing and Validating PSG Resilience Scale for Gen Y," Indian Journal of Health and Well-being, vol. 9, no. 3, pp. 895-905, 2018.
- 76. D. Chavaly and K. P. Naachimuthu, "Human Nature Connection and Mental Health," Indian Journal of Positive Psychology, vol. 11, no. 1, pp. 84-92, 2020.
- 77. S. Ganga, P. M. Mathiyoli, and K. P. Naachimuthu, "Dark Side of White Flour Maida," Indian Journal of Health and Wellbeing, vol. 11, no. 1, pp. 100-105, 2020.
- 78. M. Rajashekar, R. Hariharan, and K. P. Naachimuthu, "Sentiment Analysis of Tweets on Australian Bushfire," Mukt Shabd, vol. IX, no. V, pp. 18-26, 2020.

- 79. T. Kalpana and K. P. Naachimuthu, "Students' Engagement with PUBG A Phenomenological Study," Journal of Community Guidance & Research, vol. 37, no. 2, pp. 321-340.
- 80. A. A. R. Aishvarya, S. Devishrree, and K. P. Naachimuthu, "Gratitude, Forgiveness, & Humility as Predictors of Thriving Among College Students," Psychology and Education, vol. 58, no. 3, pp. 3841-3850, 2021.
- 81. B. Bisoyi, D. Das, P. Srinivas Subbarao, and B. Das, "An evaluation on green manufacturing: It's technique, significance and rationality," IOP Conf. Ser. Mater. Sci. Eng., vol. 653, no. 1, p. 012032, 2019.
- 82. P. Srinivas Subbarao, "CSR and Socio-Economic Development-A case study of selected PSU's in the State of Odisha", Journal of Critical Reviews, Vol. 7 (13), 1407-1415, 2020.
- 83. S. S. Pasumarti and S. S. Pasumarti, "Work life balance: A challenge for employees in Indian IT and ITES industry," Rupkatha J. Interdiscip. Stud. Humanit., vol. 11, no. 2, pp. 1-12, 2019.
- 84. P. Srinivas Subbarao, "Influence of Demographic Factors on Recruitment and Selection of Employees in IT & ITES Industry", Journal of Advanced Research in Dynamical & Control Systems 11 (6), 52-61, 2019.
- 85. P. Srinivas Subbarao, "Accomplishment of Gandhian Globalization Is A Myth or Reality", International Research Journal of Commerce & Behavioral Science 4 (10), 2015.
- 86. P. Srinivas Subbarao, "Bank credit to infrastructure in India-Issues, Challenges and Strategies", International Journal of Decision Making in Management 2 (1), 55-62, 2013.
- 87. P. Srinivas Subbarao and PS Rani, "Participative Management in Post Liberalization-A Case study of Indian Jute Industry", European Journal of Business and Management 4 (8), 37-46, 2012.
- 88. PS Subbarao, PS Rani, "Application of information Technology in Agriculture-An Indian Experience", Global Journal of Business Management 5 (1), 2011.
- 89. V Batth, B Nayak, SS Pasumarti, "The study of financial performance of Indian public sector undertakings", Global Journal of Finance and Management 10 (1), 21-43, 2018.
- 90. PSS CA Vijaya Batth, Bhagirathi Nayak, "Role of Independent Directors in changing business scenario in India", International Journal of Scientific Research and Management 4 (2), 3878-3882, 2016.
- 91. S. Taneja, R. Srivastava, and N. Ravichandran, "Employees' fairness perception towards performance appraisal system: Antecedents and consequences review of Managerial Science," SpringerLink.
- 92. S. Taneja, R. Srivastava, and N. Ravichandran, "'diversification: Performance turnaround' (A case of sarvodaya hospitals)," International Journal of Healthcare Management, vol. 7, no. 3, pp. 206–213, 2014.
- 93. S. Taneja and V. Jain, "Modelling of critical success factors of AMT implementation using TISM and Sem," International Journal of Business Performance Management, vol. 24, no. 1, p. 22, 2023.

- 94. Veena, A., Gowrishankar, S. An automated pre-term prediction system using EHG signal with the aid of deep learning technique. Multimed Tools Appl (2023).
- 95. A. Veena and S. Gowrishankar, "Context based healthcare informatics system to detect gallstones using deep learning methods," International Journal of Advanced Technology and Engineering Exploration, vol. 9, (96), pp. 1661-1677, 2022.
- 96. Veena, A., Gowrishankar, S. (2021). Healthcare Analytics: Overcoming the Barriers to Health Information Using Machine Learning Algorithms. In: Chen, J.IZ., Tavares, J.M.R.S., Shakya, S., Iliyasu, A.M. (eds) Image Processing and Capsule Networks. ICIPCN 2020. Advances in Intelligent Systems and Computing, vol 1200. Springer, Cham.
- 97. A. Veena and S. Gowrishankar, "Processing of Healthcare Data to Investigate the Correlations and the Anomalies," 2020 Fourth International Conference on I-SMAC (IoT in Social, Mobile, Analytics and Cloud) (I-SMAC), Palladam, India, 2020, pp. 611-617.
- 98. A. Veena and S. Gowrishankar, "Applications, Opportunities, and Current Challenges in the Healthcare Industry", 2022 Healthcare 4.0: Health Informatics and Precision Data Management, 2022, pp. 27–50.
- 99. Almaamari, Q. A., & Salial, M. M. (2022). Influence of Job Satisfaction, Effective Teamwork and Social Media on Employee's Performance in Bahraini Telecommunication Sector. Specialusis Ugdymas, 1(43), 2063-2070.
- 100. Almaamari, Q. A., & Alaswad, H. I. (2021). Factors Influencing Employees'productivity-Literature Review. Academy of Entrepreneurship Journal, 27(3), 1-7.
- 101. Almeer, M. S., & Almaamari, Q. A. (2022). The Influence of Green Human Resource Management on Organizational Performance in Retail Sector in Bahrain. Baltic Journal of Law & Politics, 15(1), 362-376.
- 102. A. Mohammed Saleh Ba wazir, Q. Ahmed Amaamari, and B. Ali Hasan, "The relationships between self-efficacy, managerial competency and learning orientation on job performance among leaders in Saudi universities," International Journal of Intellectual Human Resource Management (IJIHRM), no. 01, 2020.
- 103. Almaamari, Q. A., Ali, B. M., & Almeer, S. (2022). Factors Influencing Organizational Performance at Petroleum Products Distribution Company in Yemen. Specialusis Ugdymas, 1(43), 2071-2083.
- 104. Almaamari, Q., & Abdulhusain, Z. (2022). Leadership, organization Culture and job Satisfaction influence employee performance in private companies in Bahrain. Baltic Journal of Law & Politics, 15(1), 352-361.
- 105. Beshr, B., Abd Al-Rahman, M. M., Alaghbari, M. A., & Albo-Aainain, M. I. (2023). The impact of leadership skills on the process of making administrative decisions (A field study-Nationality, Passports and Residence Affairs-Kingdom of Bahrain). resmilitaris, 13(1), 2219-2241.
- 106. M Mahato, "Get the EGO Advantage", South Asian Journal of Management, vol 20, no 4, pp 153, 2013.

- 107. M Mahato, "Industrial Relations and Labor Movement in Bangladesh", South Asian Journal of Management, vol 22, no 2, pp 203, 2015.
- 108. M Mahato, "The Tao of Loyalty: Winning with Employees", South Asian Journal of Management, vol 20, no 1, pp 151, 2013.
- 109. M Mahato, "Training for Development", South Asian Journal of Management, vol 22, no 3, pp 199, 2015.
- 110. M Modekurti, "The nature of leadership: Reptiles, mammals, and the challenge of becoming a great leader", South Asian Journal of Management, vol 14, no 4, pp 155, 2007.
- 111. M Modekurti and P.G. Raju, "India Arriving: How This Economic Powerhouse Is Redefining Global Business", South Asian Journal of Management, vol 16, no 4, pp 163, 2009.
- 112. M. Mahato and P. Kumar, "Emotional Labor An Empirical Analysis of the Correlations of Its Variables," European Journal of Business and Management, vol. 4, no. 7, pp. 163–168, Jun. 2012.
- 113. M. Mahato, "HR Focus Within the Indian Information Technology Industry," Prabandhan: Indian Journal of Management, vol. 5, no. 5, p. 14, May 2012.
- 114. M. Mahato, "Life satisfaction—what does it really mean to Indians?," PURUSHARTHA-A journal of Management, Ethics and Spirituality, vol. 7, no. 1, pp. 79–87, 2014.
- 115. M. Mahato, "Organizational change: An action oriented toolkit," South Asian Journal of Management, vol. 22, no. 4, pp. 197. 2015.
- 116. M. Mahato, "Performance Analysis of High, Medium and Low Companies in Indian Pharmaceuticals Industry," IUP Journal of Management Research, vol. 10, no. 3, pp. 52-70, 2011.
- 117. M. Modekurti, and R. Chattopadhyay, "The relationship between organizational role stress and life satisfaction levels among women employees: an empirical study," The Icfaian Journal of Management Research. vol. 7, no. 5, pp. 25-34. 2008.
- 118. M. Modekurti-Mahato and P. Kumar, "Organizational Role Stress Empirical Evidences from India during Economic and Political Resentment," PURUSHARTHA A journal of Management, Ethics and Spirituality, vol. 7, no. 2, pp. 30–39, 2014.
- 119. M. Modekurti-Mahato, P. Kumar, and P. G. Raju, "Impact of Emotional Labor on Organizational Role Stress A Study in the Services Sector in India," Procedia Economics and Finance, vol. 11, pp. 110–121, 2014.
- 120. P. G. Raju and M. M. Mahato, "Impact of longer usage of lean manufacturing system (Toyotism) on employment outcomes a study in garment manufacturing industries in India," International Journal of Services and Operations Management, vol. 18, no. 3, p. 305, 2014.
- 121. R, Steffi., S. Suman Rajest, R. Regin, and Shynu T. 2023. "Detection Of Prominent Objects by The Use of Deep Learning". Central Asian Journal of Mathematical Theory and Computer Sciences 4 (5), 62-82.

- 122. R. Regin, S. Suman Rajest, Shynu T, & Steffi. R. (2023). The Application of Machine Learning to the Prediction of Heart Attack. International Journal of Human Computing Studies, 5(4), 5-25.
- 123. Rajest, S. S., Regin, R., T, Shynu., & R, Steffi. (2023). Treatment Method for Sewage Water Used in Horticulture. European Journal of Life Safety and Stability, 36(12), 11-27.
- 124. Ravi Kumar Gupta, "A Study on Occupational Health Hazards among Construction Workers in India", International Journal of Enterprise Network Management. Vol. 12, No. 4, pp. 325-339, 2021.
- 125. Ravi Kumar Gupta, "Adoption of Mobile Wallet Services: An Empirical Analysis", Int. J. of Intellectual Property Management, 2022.
- 126. Ravi Kumar Gupta, "Utilization of Digital Network Learning and Healthcare for Verbal Assessment and Counselling During Post COVID-19 Period", Technologies, Artificial Intelligence and the Future of Learning Post-COVID-19. Springer Nature, Switzerland, pp. 117-134, 2022.
- 127. Regin, R., S. Suman Rajest, Shynu T, and Steffi. R. (2023). "Electronic Tourism as A Destination Marketing Strategy for World Travellers". Central Asian Journal of Mathematical Theory and Computer Sciences. 4 (5), 9-28.
- 128. Regin, R., S. Suman Rajest, Shynu T, and Steffi. R. 2023. "Principal Component Analysis for ATM Facial Recognition Security". Central Asian Journal of Medical and Natural Science 4 (3), 292-311.
- 129. S. Bhattacharjee and M. Mahato, "A comparative analysis of growth of telecom cluster with special reference to Indian economy," Iimranchi.ac.in, 2016.
- 130. S. Silvia Priscila, S. Suman Rajest, R. Regin, Shynu T, & Steffi. R. (2023). Classification of Satellite Photographs Utilizing the K-Nearest Neighbor Algorithm. Central Asian Journal of Mathematical Theory and Computer Sciences, 4(6), 53-71.
- 131. S. Suman Rajest, R. Regin, Shynu T, & Steffi. R. (2023). Using Voice Guidance, an Intelligent Walking Assistance Mechanism for the Blind. Central Asian Journal of Theoretical and Applied Science, 4(11), 41-63.
- 132. S. Suman Rajest, S. Silvia Priscila, R. Regin, Shynu T, & Steffi. R. (2023). Application of Machine Learning to the Process of Crop Selection Based on Land Dataset. International Journal on Orange Technologies, 5(6), 91-112.
- 133. S. Suman Rajest, Shynu T, R. Regin, & Steffi. R. (2023). A Visual Approach for Detecting Tyre Flaws That Makes Use of The Curvelet Characteristic. International Journal on Orange Technologies, 5(4), 17-40.
- 134. S. Suman Rajest, Shynu T, R. Regin, & Steffi. R. (2023). An Individualized Recommendation and Promotional System for Tourist Attractions. Central Asian Journal of Theoretical and Applied Science, 4(5), 64-84.
- 135. S. Suman Rajest, Shynu T, R. Regin, & Steffi. R. (2023). The Use of Deep Learning Methods for the Detection of Diseases in Plant Leaves. Central Asian Journal of Theoretical and Applied Science, 4(3), 67-91.

- 136. Shynu T, S. Suman Rajest, R. Regin, & Steffi. R. (2023). Data Mining-Based Point of Sale with Auto-Source Triggering and Business Reports. Central Asian Journal Of Mathematical Theory And Computer Sciences, 4(2), 116-141.
- 137. Shynu T, S. Suman Rajest, R. Regin, & Steffi. R. (2023). Region Segmentation and Support Vector Machine for Brain Tumour Stage Analysis, Detection, and Automatic Classification. Central Asian Journal of Medical and Natural Science, 25-43.
- 138. Steffi. R, S. S. Rajest, R. Regin, Shynu T, & S. S. Priscila. (2023). Analysis of an Interview Based on Emotion Detection Using Convolutional Neural Networks. Central Asian Journal of Theoretical and Applied Science, 4(6), 78-102.
- 139. Steffi. R, S. Suman Rajest, R. Regin, & Shynu T. (2023). An Authenticated Vehicle Owner Identification System Based on License Plate Readers. Central Asian Journal of Mathematical Theory and Computer Sciences, 4(3), 42-58.
- 140. Steffi. R, S. Suman Rajest, R. Regin, & Shynu T. (2023). An Examination of the Effects That Marketing Methods Have on Non-Governmental Organizations. Middle European Scientific Bulletin, 34(3), 189-207.
- 141. Steffi. R, S. Suman Rajest, R. Regin, & Shynu T. (2023). Developing Banking Sector Strategies Amid Economic Turmoil. International Journal on Economics, Finance and Sustainable Development, 5(4), 78-100.
- 142. Steffi. R, S. Suman Rajest, R. Regin, & Shynu T. (2023). The Identification and Classification of Rash Conditions Compared to Skin Cancer . European Journal of Life Safety and Stability (2660-9630), 27, 4-27.
- 143. Steffi. R, Shynu T, S. Suman Rajest, & R. Regin. (2023). Performance of Employees in Relation to The Effects of Change Management Practices. Central Asian Journal of Innovations on Tourism Management and Finance, 4(12), 1-23.
- 144. Suman Rajest, S., Regin, R., Y, A., Paramasivan, P., Christabel, G. J. A., & T, Shynu. (2023). The Analysis of How Artificial Intelligence Has an Effect on Teachers and The Education System. EAI Endorsed Transactions on E-Learning, 9(4), 1-10.
- 145. Sundararajan, V., Steffi, R., & Shynu, T. (2023). Data Fusion Strategies for Collaborative Multi-Sensor Systems: Achieving Enhanced Observational Accuracy and Resilience. FMDB Transactions on Sustainable Computing Systems, 1(3), 112–123.
- 146. T, S., Rajest, S. S., Regin, R. and R, S. (2023) "Protection of User Profiles in Social Networks From Unauthorized Access", Central Asian Journal of Theoretical and Applied Science, 4(4), pp. 32-50.
- 147. T, Shynu, S. S. Rajest, R. Regin, and Steffi. R. 2023. "OTP As a Service in the Cloud Allows for Authentication of Multiple Services". International Journal on Orange Technologies 5 (4), 94-112.
- 148. T, Shynu, S. Suman Rajest, R. Regin, and Steffi. R. (2023). "Analysis of the Impact of Employee Training and Development on Performance". Central Asian Journal of Innovations on Tourism Management and Finance 4 (6), 1-25.
- 149. V. K. Nomula, R. Steffi, and T. Shynu, "Examining the Far-Reaching Consequences of Advancing Trends in Electrical, Electronics, and Communications Technologies in Diverse Sectors," FMDB Transactions on Sustainable Energy Sequence, vol. 1, no. 1, pp. 27–37, 2023.