



## Analyzing Mediating Factors in Job Satisfaction Within the Retail Superstore Environment

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Article History	Abstract
Received: 06 June 2023 Revised: 05 Sept 2023 Accepted: 18 Oct 2023	<i>Employee devotion to the organization is a key factor in determining whether an organization will succeed in the competitive market. Employee job satisfaction is therefore a critical factor. Employee satisfaction leads to full commitment and motivation to perform at their peak levels, enhancing customer value and advancing business goals. When employees receive enough compensation (salary, bonus, and provident fund), allowances, and insurance, as well as better working conditions, recognition for their efforts in the workplace, opportunities for training and development, and vacation benefits from their employer, they are satisfied with their jobs. The goal of the study is to identify the factors that influence an organization's employee job satisfaction. The article's objective is to quantify the degree to which the mediating factors have an impact on worker job satisfaction.</i>
<b>CC License</b> CC-BY-NC-SA 4.0	<b>Keywords:</b> Job Satisfaction; Mediating Factors; Superstore Retail Organization; employer

### 1. Introduction

Job satisfaction is one of the most researched topics in the fields of organizational behavior and human resource management. Job satisfaction is the degree to which a person is satisfied with their job, which affects personal wellbeing and even life satisfaction (Spector, 1997; Judge and Hulin, 1993; & Judge and Watanabe, 1993). It is thus necessary to identify the factors that define this satisfaction, allowing for appropriate updates to be made to prevent the deterioration of job conditions in an organization. Employee job satisfaction can be thought of as a multidimensional concept that includes a set of positive and negative feelings that employees have about their jobs (Davis and Newstrom, 1999). As a result, it is critical to identify the variables that define this satisfaction in order to make the necessary updates and prevent an organization's working conditions from deteriorating. Rose (2001) proposed a two-dimensional paradigm with dimensions for both intrinsic and extrinsic satisfaction. Internal sources of happiness are influenced by a person's unique characteristics, such as initiative, relationships with managers, or how well they carry out their duties. The situational nature of extrinsic sources of satisfaction is determined by factors such as pay, advancement, and job security. All aspects of a profession that provide a financial or material benefit or reward are included.

The extent to which a worker's expectations for their jobs reflect their actual workplace experiences is an important factor in determining job satisfaction. A worker's job expectations are strongly linked to his or her personality, and the traits that comprise the worker's personality also influence how satisfied they are with their jobs. Employees are more satisfied with their jobs when they believe their work is more interesting or unique. Dinler (2008) and Wright and Davis (2003) provide examples. Peretomode (2006) defined job satisfaction as the fulfillment gained from engaging in various job activities and rewards. Job satisfaction has a significant impact on organizational behavior. Most studies have found that job satisfaction improves employee working performance and organizational commitment while decreasing employee turnover (Agarwal & Ferratt, 2001; Fraser, 2011).

## 2. Literature Review

Job satisfaction is the positive and negative feelings of an employee towards his job or it is the amount of happiness connected with the job (Singh and Jain, 2013). Job satisfaction is the positive and enjoyable feeling that results from the evaluation of one's job or job experience (Locke, 1976). In the current environment of rapid change, businesses have begun to recognize that their most precious asset is their employees (Glen, 2006; Govaerts et al., 2011; Fulmer and Ployhart, 2014; Vomberg et al., 2015; Millar et al., 2017). Employee satisfaction and motivation are essential for modern business and a crucial characteristic that sets successful organizations apart from the competition.

Employee satisfaction has become one of the main corporate objectives in recent years. Job satisfaction refers to all the characteristics of the job itself and of the work environment in which employees may find rewards, fulfillment and satisfaction, or conversely, sentiments of frustration and/or dissatisfaction (Churchill et al., 1974). Consequently, employee job satisfaction is one of the most extensively explored issues in the field of organizational psychology (Spector, 1997). The measuring of employee happiness is one of the key components of human resource management. To increase productivity, responsiveness, quality, and customer service, businesses must ensure that employee satisfaction is high among their workforce. Employees are more loyal and productive when they are satisfied (Hunter 1997), and these satisfied employees affect the customer satisfaction and organizational productivity (Potterfield, 1999).

According to Edwards (1996) determined that employees with high person-job fit produce superior results. Person-job fit with regard to the employee's wishes (employee related) and organizational mandates (job related). There are a number of variables for person-job fit identified different variables that including commitment to the job (Behery, 2009; Kristoff - Brown et al., 2005), job satisfaction (Erdogan and Bauer, 2005; Kristoff - Brown et al., 2005) performance and personality (Erdogan and Bauer, 2005). Sousa- Poza and Sousa- Poza (2000) held a contrary view from scholars as they viewed job satisfaction more than their feelings and attitude towards job but opined that job satisfaction depends on the balance between work-role input such as education, working time and work- role outputs (pleasure) increase relative to work-role inputs (pains) the job satisfaction will increase.

Robbins (2004), Luthans, (2006) supported the fact that financial benefits have a significant influence on job performance. Robbins et al (2003) supposed that most employees will look for payment systems that they believe to be fair, definite, and aligned with their expectations. An employee's values and motivations determine how satisfied they are with their work. Employees will feel more appreciated if a company genuinely listens to them, and this can be a tactical tool for increasing employee engagement in a job and employees are satisfied.

One would wish to empirically examine the competing job satisfaction variables to see which of these variables or job satisfaction components would most accurately predict job satisfaction of these organizational staff. There are criteria used in the superstore retail business to gauge how satisfied employees are with their jobs, including financial benefits, allowances and insurance, working conditions, training and development, vacation facilities, and achievement. The purpose of the study is to ascertain how mediating factors in the superstore retail organization affect employee job satisfaction.

Previously, researchers looked into a variety of factors that can influence employee job satisfaction. The research study objectives focus employee job satisfaction and its mediating factor.

*The study major objectives are as follows:*

- i) To determine the elements that influence employee job satisfaction.
- ii) To assess the degree to which the mediating factors that affect employee job satisfaction can be influenced.

### 3. Materials And Methods

It is a descriptive study intended to determine the variables affecting the Shwapno retail organization's employee work satisfaction. Therefore, this study report assisted in confirming the crucial elements influencing the level of present employee satisfaction among consumers and luring potential talent into an organisation. This study used a non-probability convenient sampling strategy in order to collect sample data. The purpose of this study is to evaluate how satisfied employees are with their jobs at the superstore retail chain in Shwapno, India. The sample for the study, which was performed from June 2022 to May 2023, consisted of 160 respondents. Primary information has been acquired from a range of staff groups at multiple outlets dispersed throughout the Indian city of Chittagong. The core data for this study was gathered through a survey. A structured questionnaire has been created as a result. The factors that affect employee job satisfaction, such as financial benefits, allowances and insurance, working conditions, training and development, vacation facilities, and achievement, appraisal, were investigated using a 5-point Likert scale that was standardised by (Brayfield-Rothe, 1951), with the exception of questions pertaining to the demographic characteristics of the respondents. The measure consists of 21 statements, with five responses available for each i.e. 1= strongly disagree, 2= disagree, 3= undecided, 4= agree, 5= strongly agree.

#### Data Analysis Technique and Reliability of Scale

Version 21 of the SPSS software programme has been used for statistical analysis. The Cronbach Alpha has been used to assess the reliability of data (Cronbach, 1951). There was a 0.745 Cronbach Alpha. Nunnally (1978) recommended that Alpha be greater than 0.7 so that data collecting may be thought of as dependable. The questionnaire has two (two) segmentations: The demographic portion of the questionnaire includes questions about age, education, career, gender, and marital status, among other things. In the second section, respondents' scale items were used to analyse the literature-recommended mediating factors' effects on the employee work satisfaction of superstore retail organisations. The application of descriptive statistical tools, such as mean, frequency, and percentage, allows for the understanding of demographic profiles. In order to answer research issues, employee work satisfaction has been examined using Principal Component Analysis (PCA) and Pearson Coefficient of Correlation.

#### Hypotheses of the Study

*H0: There is no positive relationship between mediating factors and employees job satisfaction.*

*H1: There is a significant positive relationship between mediating factors and employees job satisfaction.*

The following mediating factors have an impact on the employees' job satisfaction of Shwapno retail superstores.

**Table 1** Mediating Factors

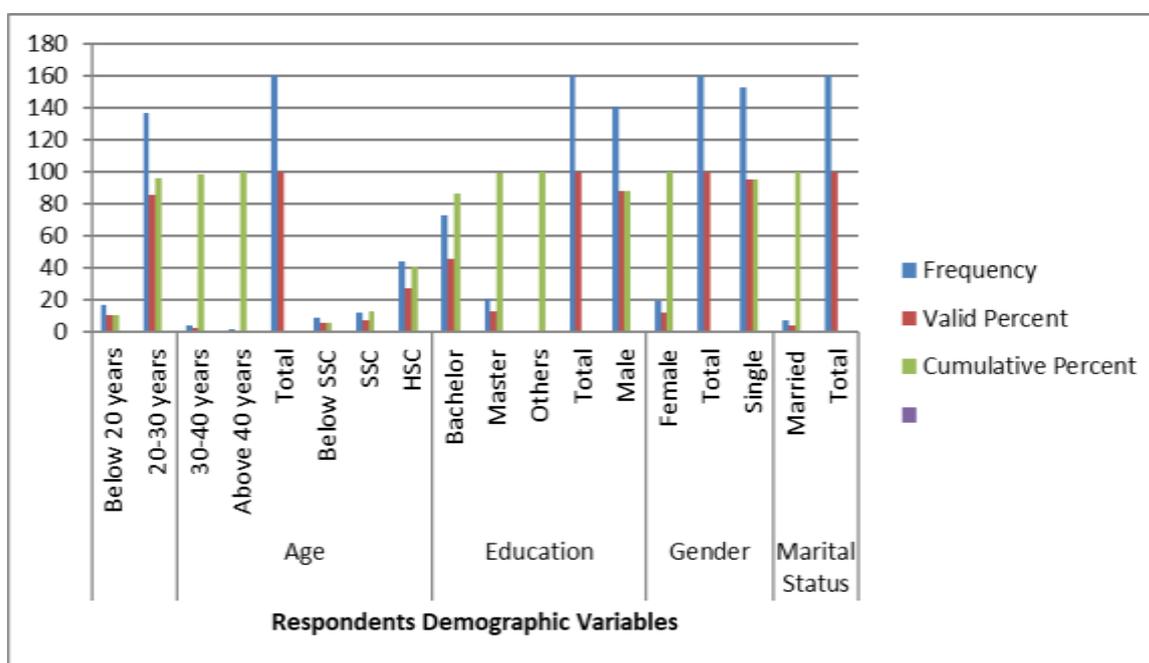
<b>Factors</b>
Financial Benefits
Allowances and Insurance
Working Condition
Training and Development
Vacation Facilities
Achievement

### 3. Results and Discussion Respondents Demographic

A total of 100% of respondents who answered the researcher's 160 sample questions and distributed the respondents' names did so. Researchers failed to notice that the entire sample of respondents was a working member of the Shwapno Superstore retail organization from the demographic table 2.

**Table 2** Respondents Demographic Variables

Variables	Frequency	Valid Percent	Cumulative Percent	
<b>Age</b>	Below 20 years	17	10.6	10.6
	20-30 years	137	85.6	96.2
	30-40 years	4	2.5	98.8
	Above 40 years	2	1.2	100.0
	Total	160	100.0	
<b>Education</b>	Below SSC	9	5.6	5.6
	SSC	12	7.5	13.1
	HSC	44	27.5	40.6
	Bachelor	73	45.6	86.2
	Master	21	13.1	99.4
	Others	1	0.6	100.0
	Total	160	100.0	
<b>Gender</b>	Male	141	88.1	88.1
	Female	19	11.9	100.0
	Total	160	100.0	
<b>Marital Status</b>	Single	153	95.6	95.6
	Married	7	4.4	100.0
	Total	160	100.0	



**Figure: 1** Respondent Demographic Variables

The demographic characteristics of the respondents are shown in Table 2. It was discovered that 10.6% of respondents were under the age of 20, 85.6% were between the ages of 20 and 30, 2.5% were between the ages of 30 and 40, and 1.2 percent were over the age of 40. Table 3's educational breakdown of the respondents left out the following information: 5.6 percent had a grade below the SSC, 7.5 percent had an SSC, 27.5 percent had an HSC, 45.6 percent had a bachelor's degree, 13.1% had a master's degree, and 0.6 percent had other degrees, indicating that the majority of respondents were highly educated. A

total of 141 respondents (88.1% of the samples) were men, while 19 respondents (11.9% of the samples) were women. This indicates that men made up the bulk of the sample, and both of them are currently employed by Shwapno Super Shop. 95.6 percent of the respondents were single, and 4.4 percent were married, according to their marital status.

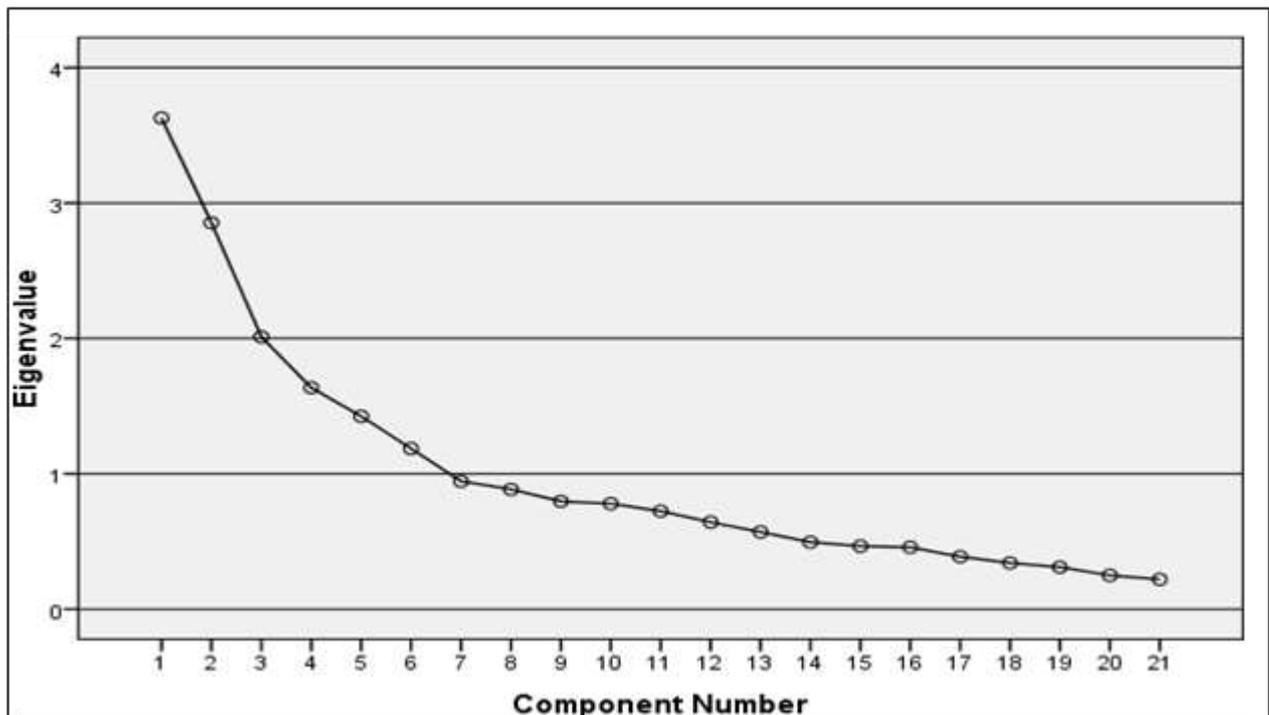
### Exploratory Factor Analysis

In the context of the research population of employees' job satisfaction in superstore retail organization in India, exploratory factor analysis (EFA) was carried out to evaluate the research instrument and empirically validate the structure of the research dimensions. Principal components analysis with promax rotation was used to factor analyze 21 questions about employee work satisfaction.

**Table 3** KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.733
Bartlett's Test of Sphericity	Approx. Chi-Square	1.284E3
	Df	190
	Sig.	0.001

Table 3 displays the KMO and Bartlett's test results. Kaiser-Meyer-Olkin's measure of sample adequacy, which is used to confirm whether data are suitable for factor analysis, was .733, which is higher than the generally advised value of .70. Kaiser proposed that a KMO > 0.9 was marvellous, in the 0.80s, meritorious, in the 0.70s, moderate, in the 0.60s, mediocre, in the 0.50s, terrible, and less than 0.5 would be undesirable. Bartlett's test of sphericity was significant ( $\chi^2(190) = 1.284E3, p 0.001$ )



**Figure: 2** Scree Plot

Six factors were found to account for a total of 60.659 percent of the variance in the data using the Scree plot and Eigenvalues > 1 to identify the underlying components. Figure 1 displays the Scree plot of the analysis's findings. We kept the variables above the inflection point, as the chart demonstrates.

**Table 4** Total Variance Explained

Initial Eigenvalues	Extraction Sums of Squared Loadings	Rotation Sums of Squared Loadings
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Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
3.628	17.274	17.274	3.628	17.274	17.274	2.888
2.854	13.591	30.865	2.854	13.591	30.865	2.998
2.011	9.576	40.442	2.011	9.576	40.442	2.452
1.636	7.788	48.230	1.636	7.788	48.230	2.299
1.424	6.782	55.012	1.424	6.782	55.012	1.727
1.186	5.647	60.659	1.186	5.647	60.659	1.664

*Extraction Method: Principal Component Analysis.*

Table 4 displays more thorough outcomes of the Exploratory Factor Analysis (EFA) for the six factors. The pattern matrix (Table 5) displays the distinct loadings of particular items measured with various questionnaire questions on the determined parameters. The table demonstrates that there are no cross-loadings and that each factor is loaded with items that were created to measure a particular construct. The first aspect relates to perks like insurance and allowances, the second to financial advantages, the third to working conditions, the fourth to training and growth, the fifth to vacation amenities, and the last to success.

**Table 5** Pattern Matrix for Components

Variables	Component					
	1	2	3	4	5	6
Allowances and Insurance (1)	.776					
Allowances and Insurance (2)	.720					
Allowances and Insurance (3)	.689					
Allowances and Insurance (4)	.687					
Allowances and Insurance (5)	.636					
Allowances and Insurance (6)	.456					
Financial Benefits (1)		.903				
Financial Benefits (2)		.702				
Financial Benefits (3)		.531				
Financial Benefits (4)		-.416				
Financial Benefits (5)		-.401				
Working Condition (1)			.874			
Working Condition (2)			.569			
Working Condition (3)			.554			
Vacation Facilities (1)				.702		
Vacation Facilities (2)				-.647		
Vacation Facilities (3)				.401		
Training And Development (1)					.865	
Training And Development (2)					.864	
Achievement (1)						.820
Achievement (2)						.644

Extraction Method: Principal Component Analysis. Note: The researchers compiled the data.

The financial benefit element is made up of a salary, a festival bonus, a provident fund, an incentive, and a free smartphone. Initial Eigenvalues for this factor were 2.854, and significant factor loadings on the variables that made up this major group ranged from 0.903 to -0.401. This component accounts for 13.591 percent of the total variation in the set of variables. Lunch, medical, disease and damage compensation, transportation, education, and health insurance make up the factor of allowances and

insurance. The initial Eigenvalues of this factor were 3.628, and the variables in this main group had significant factor loadings ranging from 0.776 to 0.456. This component accounts for 17.274 percent of the total variation in the set of variables.

A comfortable workspace, flexible scheduling, and a relaxing location are all considered working circumstances. The largest set of variables that made up this factor had significant factor loadings that ranged from 0.874 to 0.554, and the first Eigenvalues for this factor were 2.011. 9.576% of the total variation in the set of variables can be attributed to this element. The component of vacation amenities consists of the annual vacations, paid leave choices, and flexible holidays. Initial Eigenvalues for this factor were 1.636, and the variables that made up this big set of variables had significant factor loadings ranging from 0.702 to 0.401. 7.788% of the total variation in the collection of variables can be attributed to this component. A mentor training programme and training for new employees make up the training and development. Initial eigenvalues of this factor were 1.424, and significant f loadings on the variables that made up this major group ranged from 0.865 to 0.864. 6.782% of the total variation in the variable set is explained by this factor. A better performance reward and a better likelihood of promotion make up the achievement. Initial Eigenvalues for this factor were 1.186, and significant factor loadings for this large collection of variables ranged from 0.820 to 0.644. This component accounts for 5.647 percent of the entire variation in the set of variables.

**Table 6** Factor Correlation

		<b>Allowance &amp; Insurance</b>	<b>Financial Benefit</b>	<b>Working Condition</b>	<b>Training and Development</b>	<b>Vacation Facilities</b>	<b>Achieveme nt</b>
	Pearson Correlation	0.269**	0.287**	0.192*	0.328**	0.345**	0.123
<b>Employee Job Satisfaction</b>	Sig. (2- tailed)	.001	.000	.015	.000	.000	.121
	N	160	160	160	160	160	160

The Pearson coefficient of correlation was utilised in this study to explain the relationship between employee job satisfaction and monetary benefits, allowances and insurance, working conditions, training and development, vacation facilities, and achievement. The factor correlation table no. 6 reveals a strong association between mediating factors and workers' job satisfaction.

#### 4. Conclusion

It This study demonstrated that mediating factors have a significant influence on employee work satisfaction. Based on the research's conclusions, it is recommended that the Shwapno Superstore, a retail company, enhance its non-financial perks in order to retain and recruit top staff for the organization's advantage. The literature indicates that contented employees do perform better and contribute to the overall success of an organization. Employees who are not satisfied, on the other hand, perform poorly and obstruct progress. The study found that job satisfaction in an organization can be considerably predicted by mediating elements such financial advantages, allowances and insurance, working conditions, training and development, vacation facilities, and achievement. The study's findings led to the conclusion that the mediating elements have a significant impact on employee job satisfaction. As a result, the organization should take these aspects into account and work to enhance its financial and non-financial facilities. Employee work satisfaction was found to be influenced by non-financial and fringe benefits as well as financial aspects. Primary data sources for the study could rely heavily on respondents' cooperation. The opinions of the respondents can be skewed. Another geographic limitation of the study was that the primary data collection only took place in the Chattogram metropolitan area.

#### References:

1. Agarwal, R., & Ferratt, T.W. (2001). [Crafting and HR strategy to meet the need for IT workers.](#) *Communications of the ACM*, Vol. 44(7), pp. 58-64.
2. Behery M. H. (2009). [Person/organisation job-fitting and affective commitment to the organisation: Perspectives from the UAE.](#) *Cross Cultural Management: An Int. J.*, Vol. 16 (2), pp. 179-196.

3. Brayfield, A. H., & Rothe, H. F. (1951). *An Index of Job Satisfaction*. *Journal of Applied Psychology*, Vol. 35(5), pp. 307-311.
4. Churchill, G.A., Ford, N.M. & Walker, O.C. (1974). *Measuring the job satisfaction of industrial salesmen*. *Journal of Marketing Research*, Vol. 11, pp. 323-32.
5. Cronbach, L. J. (1951). Coefficient Alpha and Internal Structure of Test. *Psychometrika*, Vol. 16, pp. 297-334. Davis, K.Y. & Newstrom, J.W. (1999). *Comportamiento Humano en el Trabajo: Comportamiento Organizacional*. 10<sup>th</sup> ed., McGraw-Hill, Mexico City.
6. Dinler, M. (2008). *Örgüt Yapısına Yönelik Örgüt Gelistirme Teknikleri* [Organization development techniques in relation with organization structure].
7. Edwards, J. R. (1996). *An examination of competing versions of the person–environment fit approach to stress*. *Acad. Manag. J.*, Vol. 39, pp. 292-339.
8. Erdogan, B. and Bauer, T.N. (2005). *Enhancing Career Benefits of Employee Proactive Personality: The Role of Fit with Jobs and Organisations*. *Personnel Psychol.*, Vol. 58, pp. 859-891.
9. Fraser, J.A. (2011). *White –collar sweatshop: the deterioration of work and its rewards in corporate America*. New York: Norton and Company.
10. Fulmer, I. S., and Ployhart, R. E. (2014). “Our most important asset” a multidisciplinary/multilevel review of human capital valuation for research and practice. *J. Manag.*, Vol. 40, pp. 161–192.
11. Glen, C. (2006). Key skills retention and motivation: the war for talent still rages and retention is the high ground. *Indust. Commer. Train.*, Vol. 38, pp. 37–45.
12. Govaerts, N., Kyndt, E., Dochy, F., and Baert, H. (2011). *Influence of learning and working climate on the retention of talented employees*. *J. Workplace Learn.*, Vol. 23, pp. 35–55.
13. Hunter, W., & Tietyen, D. (1997). *Business to business marketing: Creating a community of customers*. Lincolnwood-Illinois, McGraw-Hill Professional.
14. Judge, T.A. & Hulin, C.L. (1993). *Job satisfaction as a reflection of a disposition: a multiple source causal analysis*. *Organizational Behaviour and Human Decision Processes*, Vol. 56, pp. 388-421.
15. Judge, T.A. and Watanabe, S. (1993). Another look at the job satisfaction-life satisfaction relationship. *Journal of Applied Psychology*, Vol. 78, pp. 939-48.
16. Kaiser, Henry F.; Rice, John (1974). "Little Jiffy, Mark Iv". *Educational and Psychological Measurement*. 34: 111– 117.
17. Kristof-Brown, A.L., Zimmerman, R.D., Johnson, E.C. (2005). *Consequences of individuals’ fit at work: A meta- analysis of person–job, person–organisation, person–group, and person–supervisor fit*. *Personnel Psychology*, 58(2), 281–342.
18. Locke, E. (1976). *The nature and causes of job satisfaction*. *Hand Book of Industrial and Organizational Psychology*.
19. Luthans, F. (2006). *Organizational Behaviour*. (11th ed). Irwin: McGraw – Hill.
20. Millar, C.C.J.M., Chen, S., & Waller, L. (2017). *Leadership, knowledge and people in knowledge-intensive organisations: implications for HRM theory and practice*. *Int. J. Hum. Res. Manag.*, Vol. 28, pp. 261–275.
21. Nunnally, J.L. (1978). *Psychometric Theory*. New York: McGraw Hill Company.
22. Peretomode, V.F. (2006). Educational administration, Applied concepts and theoretical Perspective for student and practitioners. *Lagos, Joja Educational Research and Publishers Ltd*.
23. Potterfield, T.A. (1999). *The business of employee empowerment: Democracy and ideology in the workplace*. Westport, CT: Quorum Books.
24. Robbins, S.P. Odendaal, A, & Rooch, G. (2003). *Organizational Behaviour. Global and Southern African Perspectives* (9th ed). Cape Town: Person Education.
25. Robbins, S.P. (2004). *Organizational behavior* (10th ed). New Jersey Prentice – Hall.
26. Rose, M. (2001). *Disparate measures in the workplace. Quantifying overall job satisfaction*. Paper presented at the 2001 BHPS research conference. Clochester.
27. Singh, J.K. and Jain, M. (2013). *A study of employees’ job satisfaction and its impact on their performance*. *Journal of Indian Research*, vol. 1, no. 4, pp. 105–111, 2013.
28. Souse Pouza, A. & souse Pouza, A.A. (2000). *Taking another look at the gender/ job satisfaction paradox*. *Kykloss*, Vol. 53, pp. 135–152.
29. Spector, P.E. (1997). *Job Satisfaction: Application, Assessment, Causes, and Consequences*. Sage Publications, Thousand Oaks, CA.
30. Vomberg, A., Homburg, C., & Bornemann, T. (2015). Talented people and strong brands: the contribution of human capital and brand equity to firm value. *Strat. Manag. J.*, Vol. 36, pp. 2122–2131.
31. Wright, B.E., & Davis, B.S. (2003). *Job satisfaction in the public sector: The role of the work environment*. *American Review of Public Administration*, Vol. 33, 70-90.

32. Sobia Wassan, Chen Xi, Tian Shen, Kamal Gulati, Kinza Ibraheem, Rana M. Amir Latif Rajpoot, "The Impact of Online Learning System on Students Affected with Stroke Disease", *Behavioural Neurology*, vol. 2022, Article ID 4847066, 14 pages, 2022. <https://doi.org/10.1155/2022/4847066>
33. Sobia Wassan, Tian Shen, Chen Xi, Kamal Gulati, Danish Vasan, Beenish Suhail, "Customer Experience towards the Product during a Coronavirus Outbreak", *Behavioural Neurology*, vol. 2022, Article ID 4279346, 18 pages, 2022. <https://doi.org/10.1155/2022/4279346>
34. Dhiman, G.; Juneja, S.; Viriyasitavat, W.; Mohafez, H.; Hadizadeh, M.; Islam, M.A.; El Bayoumy, I.; Gulati, K. A Novel Machine-Learning-Based Hybrid CNN Model for Tumor Identification in Medical Image Processing. *Sustainability* 2022, 14, 1447. <https://doi.org/10.3390/su14031447>
35. Akanksha, E., Sharma, N., & Gulati, K. (2021, January). OPNN: Optimized Probabilistic Neural Network based Automatic Detection of Maize Plant Disease Detection. In 2021 6th International Conference on Inventive Computation Technologies (ICICT) (pp. 1322-1328). IEEE.
36. Gulati, K., Boddu, R. S. K., Kapila, D., Bangare, S. L., Chandnani, N., & Saravanan, G. (2021). A review paper on wireless sensor network techniques in Internet of Things (IoT). *Materials Today: Proceedings*.
37. Gulati, K., Kumar, S. S., Boddu, R. S. K., Sarvakar, K., Sharma, D. K., & Nomani, M. Z. M. (2021). Comparative analysis of machine learning-based classification models using sentiment classification of tweets related to COVID-19 pandemic. *Materials Today: Proceedings*.
38. Wisetsri, W., R.T.S., Julie Aarthy, C.C., Thakur, V., Pandey, D. and Gulati K. (2021), Systematic Analysis and Future Research Directions in Artificial Intelligence for Marketing. *Turkish Journal of Computer and Mathematics Education (TURCOMAT)*, 12(11), 43-55.
39. Akanksha, E., Sharma, N., & Gulati, K. (2021, April). Review on Reinforcement Learning, Research Evolution and Scope of Application. In 2021 5th International Conference on Computing Methodologies and Communication (ICCMC) (pp. 1416-1423). IEEE.
40. Singh, U. S., Singh, N., Gulati, K., Bhasin, N. K., & Sreejith, P. M. (2021). A study on the revolution of consumer relationships as a combination of human interactions and digital transformations. *Materials Today: Proceedings*.
41. Gulati, K., Boddu, R. S. K., Kapila, D., Bangare, S. L., Chandnani, N., & Saravanan, G. (2021). A review paper on wireless sensor network techniques in Internet of Things (IoT). *Materials Today: Proceedings*.
42. SANGEETHA, D. M., PRIYA, D. R., ELIAS, J., MAMGAIN, D. P., WASSAN, S., & GULATI, D. K. (2021). Techniques Using Artificial Intelligence to Solve Stock Market Forecast, Sales Estimating and Market Division Issues. *Journal of Contemporary Issues in Business and Government*, 27(3), 209-215.
43. Dovhan, O.D., Yurchenko, O.M., Naidon, J.O., Peliukh, O.S., Tkachuk, N.I. and Gulati, K. (2021), "Formation of the counter intelligence strategy of Ukraine: national and legal dimension", *World Journal of Engineering*, Vol. ahead-of-print No. ahead-of-print. <https://doi.org/10.1108/WJE-06-2021-0358>
44. Billewar, S.R., Jadhav, K., Sriram, V.P., Arun, D.A., Mohd Abdul, S., Gulati, K. and Bhasin, D.N.K.K. (2021), "The rise of 3D E-Commerce: the online shopping gets real with virtual reality and augmented reality during COVID-19", *World Journal of Engineering*, Vol. ahead-of-print No. ahead-of-print. <https://doi.org/10.1108/WJE-06-2021-0338>
45. Sanil, H.S., Singh, D., Raj, K.B., Choubey, S., Bhasin, N.K.K., Yadav, R. and Gulati, K. (2021), "Role of machine learning in changing social and business eco-system – a qualitative study to explore the factors contributing to competitive advantage during COVID pandemic", *World Journal of Engineering*, Vol. ahead-of-print No. ahead-of-print. <https://doi.org/10.1108/WJE-06-2021-0357>
46. L. M. I. L. Joseph, P. Goel, A. Jain, K. Rajyalakshmi, K. Gulati and P. Singh, "A Novel Hybrid Deep Learning Algorithm for Smart City Traffic Congestion Predictions," 2021 6th International Conference on Signal Processing, Computing and Control (ISPCC), 2021, pp. 561-565, doi: 10.1109/ISPCC53510.2021.9609467.
47. S. L. Bangare, S. Prakash, K. Gulati, B. Veeru, G. Dhiman and S. Jaiswal, "The Architecture, Classification, and Unsolved Research Issues of Big Data extraction as well as decomposing the Internet of Vehicles (IoV)," 2021 6th International Conference on Signal Processing, Computing and Control (ISPCC), 2021, pp. 566-571, doi: 10.1109/ISPCC53510.2021.9609451.
48. V. P. Sriram, K. B. Raj, K. Srinivas, H. Pallathadka, G. S. Sajja and K. Gulati, "An Extensive Systematic Review of RFID Technology Role in Supply Chain Management (SCM)," 2021 6th International Conference on Signal Processing, Computing and Control (ISPCC), 2021, pp. 789-794, doi: 10.1109/ISPCC53510.2021.9609414.