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Research Article

Women in it Sectors: Navigating the Glass Ceiling's Impact On Mental Health and Job Satisfaction- A Study

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ABSTRACT

The Information Technology sector has historically been male dominated, presenting considerable barriers for women in terms of both entry level and career advancement. Despite ongoing efforts to foster diversity and integration, women in IT continue to encounter the "glass ceiling" an invisible yet powerful obstacle hindering their career progression and gender inequalities. These challenges extend ahead of professional limitations, impacting women's mental health and job satisfaction. This study examines the effects of the glass ceiling on the mental well being and job satisfaction of women in the IT sector. Data was gathered through a questionnaire administered to 270 women working in IT roles, employing a random sampling technique and descriptive statistics for analysis. Key factors such asRacial Bias and racial bias, Unequal pay, lock of recognition, work life balance, social connectivity and mentor support were identified through factor analysis. Regression analysis further assessed the extent of these impacts. The findings reveal that women in IT face significant mental health challenges, including anxiety, depression, emotional imbalance, and burnout, all of which negatively influence job satisfaction. The results emphasize the need for organizations to adopt targeted interventions that promote diversity, support mental health, reduce stress, and improve job satisfaction for women in the IT sector.

Keywords: glass ceiling, women in IT, mental health, job satisfaction, diversity, and inclusion.

INTRODUCTION

Research consistently shows that women in male dominated fields such as IT, experience higher levels of stress, fear and burnout compared to their male counterparts. The persistent challenge of overcoming the glass ceiling, combined with the pressure to adhere to traditional masculine norms, often leads to feelings of isolation, self doubt and inadequacy. This study on navigating the glass ceiling's impact on mental health and job satisfaction of women in the IT sector is significant for several reasons. This research sheds light on the challenges women face in this field and provides insights into how to manage and solve the issues. The glass ceiling can have a profound impact on women's mental health, leading to increased stress and burnout. By exploring this relationship, this study contributes to the development of strategies to promote women's mental health in the IT sector. Women's job satisfaction and retention in the IT sector are critical issues, given the industry's high turnover rates and the need for diverse talent. The findings of the study can inform the development of targeted interventions to improve job satisfaction and retention among women in IT.

Additionally, the lack of representation and mentorship further intensifies these struggles, making it more difficult for women to succeed and thrive in the IT sector. This study seeks to examine the impact of the glass ceiling on the mental health and job satisfaction of women working in IT, aiming to shed light on the unique challenges they face in their professional journeys.

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GLASS CEILING

The glass ceiling is a metaphorical yet powerful barrier that prevents women, individuals with disabilities and other marginalized groups from advancing to leadership roles within organizations. It represents an invisible force that hinders career progression, limiting access to top level positions and perpetuating inequalities within the corporate hierarchy. Despite having the necessary qualifications and capabilities, these groups often face systemic challenges that prevent them from breaking through these unseen obstacles, ultimately restricting their professional growth and leadership potential. This research aims to explore the impact of the glass ceiling, particularly within the IT sector, on the career advancement, mental health, and job satisfaction of women.

GENDER BIAS

Gender bias remains a widespread issue in the workplace, with profound consequences for women's careers. Many women report experiencing gender bias and discrimination, which can negatively impact their earning potential and the perception of their competence. Despite advancements towards gender equality, gender bias continues to be a significant barrier to women's professional growth. Women in IT sectors acknowledge that gender bias influences their pay and career advancement opportunities. Furthermore, many women feel that their status as mothers affects their career prospects, with the perception that they are seen as less dedicated and competent compared to their male counterparts.

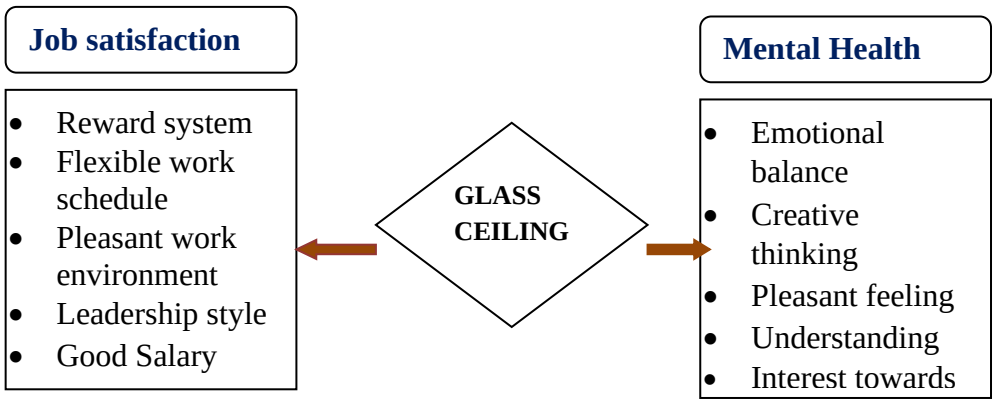
UNCONSCIOUS BIASES

The glass ceiling is not solely the result of explicit gender bias, but also stems from unconscious biases that shape how we perceive and engage with others. Our natural tendency to favor individuals who share similar interests, experiences or appearances can create subtle yet impactful barriers for women in the workplace. These unconscious biases can reinforce the glass ceiling by influencing key decisions such as hiring, performance evaluations and promotion opportunities.

MENTAL HEALTH

Women in the IT sector often face high levels of stress due to demanding workloads, tight deadlines and pressure to meet targets. The fast paced nature of the industry can contribute to burnout, with women experiencing feelings of depression, low confidence, and a lack of recognition. Gender bias and sexism are common challenges, which can lead to feelings of isolation. Many women in IT also struggle to access vital support and resources, such as leadership opportunities, social connectivity, professional development and mental health services. Balancing career and personal life can be particularly difficult and poor mental health often results in absenteeism, time management issues, and diminished productivity. Over time, this can lead to the loss of talent and hinder career growth. Furthermore, the toll on mental health can extend to physical well being, causing issues like headaches,nervous problem and other health problems.

MODEL



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OBJECTIVES

1. To understand the demographic profile of the respondents and assess their mental health.
2. To investigate the group and organizational factors, such as organizational culture and HR practices, that contributes to the perpetuation of the glass ceiling.
3. To examine the impact of the glass ceiling on job satisfaction and mental health for women in the IT sector.
4. To propose recommendations for organizations to foster diversity, equity, and inclusion in the IT sector, while supporting the mental health and job satisfaction of women in the industry.

DESIGN AND METHODS

The research follows a set of procedures aimed at achieving the study's objectives, focusing on the impact of the glass ceiling on the mental health and job satisfaction of women in the IT sector. Various tools have been employed to meet the needs of the current study. Standard statistical methods are utilized for data analysis. Additionally, the researcher has consulted with specialists in the field of information technology and a five point rating scale has been used to collect relevant data.This research employs descriptive statistics to examine factors such as gender discrimination, lack of training opportunities, stereotyping, inadequate social networks, self doubt, emotional exhaustion and group and organizational-level influences. The study uses questionnaires to gather primary data. In line with the objectives, both null and alternative hypotheses have been formulated for analysis.

SAMPLE DESIGN

The research employs a probability sampling method, specifically random sampling, for its sample design. The study targets women in the IT sector within the Chennai district, particularly those working in various IT companies. Respondents were selected from a range of organizations, including Adrenalin E-System, Accenture, BirlaSoft, Cap Gemini, and Inspirisys Solutions.

Table No: 1.1 Scale Reliability Statistics

	Mean	**SD**	**Cronbach's α**
Scale	4.130	0.870	0.793

With a Cronbach's α of 0.793, the scale demonstrates strong internal consistency, suggesting that its variables reliably measure the same underlying construct. This indicates that the scale is a dependable assessment tool. The mean score of 4.130 suggests that respondents, on average, provided relatively high ratings, assuming the scale is appropriately centered. Furthermore, the standard deviation of 0.870 indicates a low level of variability in respondents' ratings.

SAMPLE FRAME AND SIZE

Primary data was collected from 270 women working in various IT sectors in Chennai, Tamil Nadu. These respondents were selected using a simple random sampling method, ensuring first hand information from women in the IT industry.

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Table 2.1

IT SECTORS WISE RESPONDENTS

IT SECTORS	No.of Respondents	Percentage
Adrenalin E-System	54	20
Accenture	54	20
Birla Soft	54	20
Cap Gemini	54	20
Inspirisys Solutions	54	20
Total	**270**	**100%**

Source: *Primary Data*

DESCRIPTIVE STATISTICS

(i) Percentage Analyses

The percentage analysis provides insights into the demographic characteristics of the respondents, including their age, education, and experience. In terms of age distribution, 13% of respondents are under 25 years old, 28.5% fall within the 26-30 age group, 27% are between 31-35 years, and 18.5% are aged 36-40 years. Regarding educational background, 19.6% have a degree in Information Technology, 23.7% in Computer Science, 22.6% in Computer Applications, 21.9% in Commerce/CA, and 12.2% in other fields.

MEAN AND STANDARD DEVIATION: GLASS CEILING ON WOMEN IN IT SECTORS

Table No 3.1

Descriptive Statistics					
GLASS CEILING	**N**	**LESS**	**HIGH**	**MEAN**	**SD**
E1: Gender Bias	270	1	5	3.81	1.221
E2:Bias from Colleagues and supervisors	270	1	5	3.66	1.373
E3: Lock of Recognition while perform well	270	1	5	3.54	1.429
E4: Affinity Bias	270	1	5	3.77	1.365
E5:Confirmation Bias	270	1	5	2.29	1.398
E6: Glass Giliff	270	1	5	3.87	1.227
E7: Breaking Down Bias	270	1	5	4.06	1.105
E8: Unconscious Bias	270	1	5	4.66	0.898
E9: Time bias:Over work load and task are not completed on time	270	1	5	2.95	1.459
E10: Beyond Bias	270	1	6	3.84	1.176
TOTAL	270				

The above indicates that mean score of 'Breaking Down Bias'(E8) is 4.66 and the SD is 0.898; This glass ceiling bias gets highest score while the lowest score of 'Confirmation Bias'(E5)is 2.29 and the SD is 1.398; The means score of E7 and E8 are 0.898 and 1.105 respectively whereas the means score of E1,E2,E3,E4 E6 and E10 is above 3 as well as below 4. Means score of E9 is 2.95 and SD is 2.95. It is also low score.

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In addition, E8 gets the first place because mean value is high. It is concluded that most of the reason for glass ceiling is 'Breaking Down Bias' on women in it sectors.

FACTOR ANALYSIS

The researcher encountered challenges in analyzing a large number of variables. To simplify the analysis, the variables were consolidated into a smaller set of common factors. This approach makes it easier to identify the most influential and impactful factors. The Kaiser-Meyer-Olkin (KMO) value was found to be 0.714, indicating that the data is suitable for further factor analysis.**Chart No:1.1**

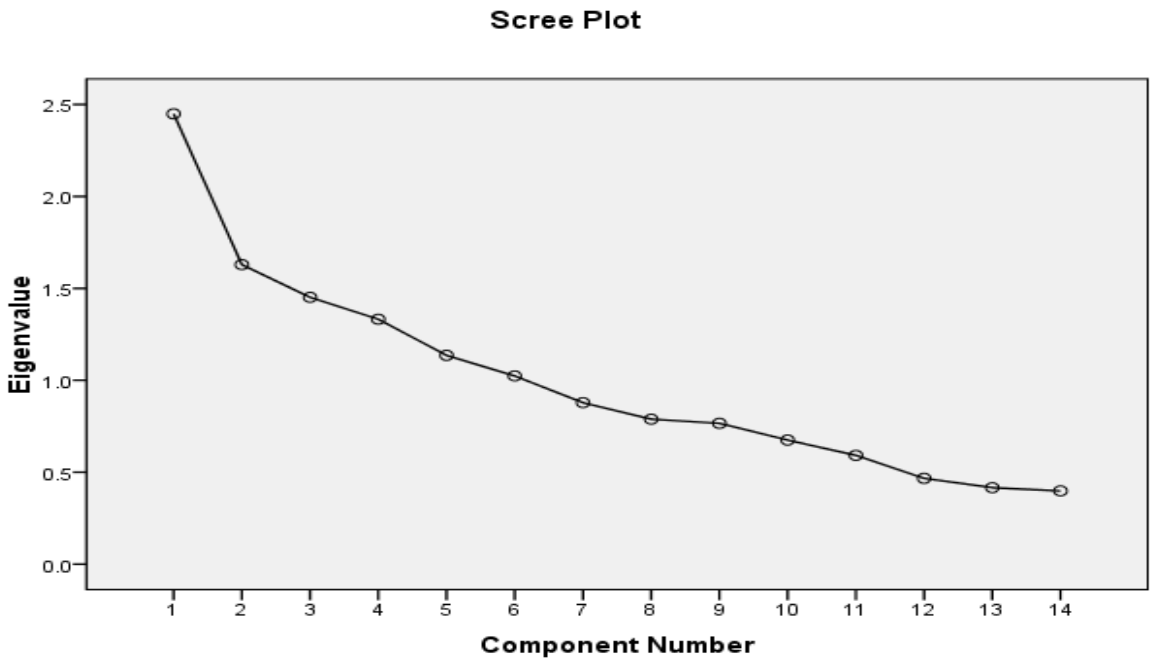

Table no 3.2

Rotated Component Matrix[a]				
	Component			
	1	2	3	4
GL3:Lock of Recognition while perform well	0.745			
G5:Lock of mentor support	0.741			
GL8: restriction to obtain T& D program	0.592			
GL13:Unequal pay	0.525			
GL6: Stiff target		0.734		
GL14:Racial Bias		0.682		
GL9: Social Connectivity		0.643		
GL11:Limited other invisible barriers		0.465		
GL1: Gender Bais			0.736	
GL4:Lock of work life balance			0.457	
GL7:Lock of sharing information				0.754
GL12:Lack of diversity and inclusion				0.635

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GL2:Stereo Typing				0.449
GL10:Restrict to advance in Women's career				0.267

Results and Analysis

The above table indicates that four factors extracted from original fourteen variables. Based on the rotated factor matrix , Variables numbers GL3, GL5,GL8 and GL13 have factor loading of 0.745.0.741, 0.592 and0.5250n factor 1. In other words factor 1 contains four original variables is now labeled as 'Restriction to women' in IT sector.Factors2 combine the variables GL6, GL14, GL9 and GL11 with factor loading of 0.734,0.682,0.643 and 0.465 now grouped in to a factor called 'Hard factors'.

Factor 3 comprises of two factors. The variables are GL1 an GL4 that have factor loading of 0.736 and 0.457. It shows the factor 3 has a combination of 2 variables and named as 'Work bias factor'Factor 4 includes four elements. The variables are GL7, GL12, GL2 and GL10 with factor loading of 0.754,0.635,0.449 and0.267. It explains the 4 elements and named as 'Work place factors'

In addition, Factor 1 is highly influenced factor towards glass ceiling in selected information sector in Chennai.

REGRESSION ANALYSIS

Null Hypothesis (H_0):There is no significant impact of glass ceiling on mental health and job satisfaction among women in the IT sector.

Alternative Hypothesis (H_1):There is a significant impact of glass ceiling on mental health and job satisfaction among women in the IT sector.

Table:4.1

Model Summary[b]				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.954[a]	0.906	0.984	1.039

Table: 4.2

ANOVA[b]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	793.063	4	198.266	17.189	.000[a]
	Residual	3056.700	265	11.535		
	Total	3849.763	269			

The above table explains that P vale is less the 0.05. There is a significance difference among variable of glass ceiling on job satisfaction and mental health of women in IT sectors.

Chart No:2.1

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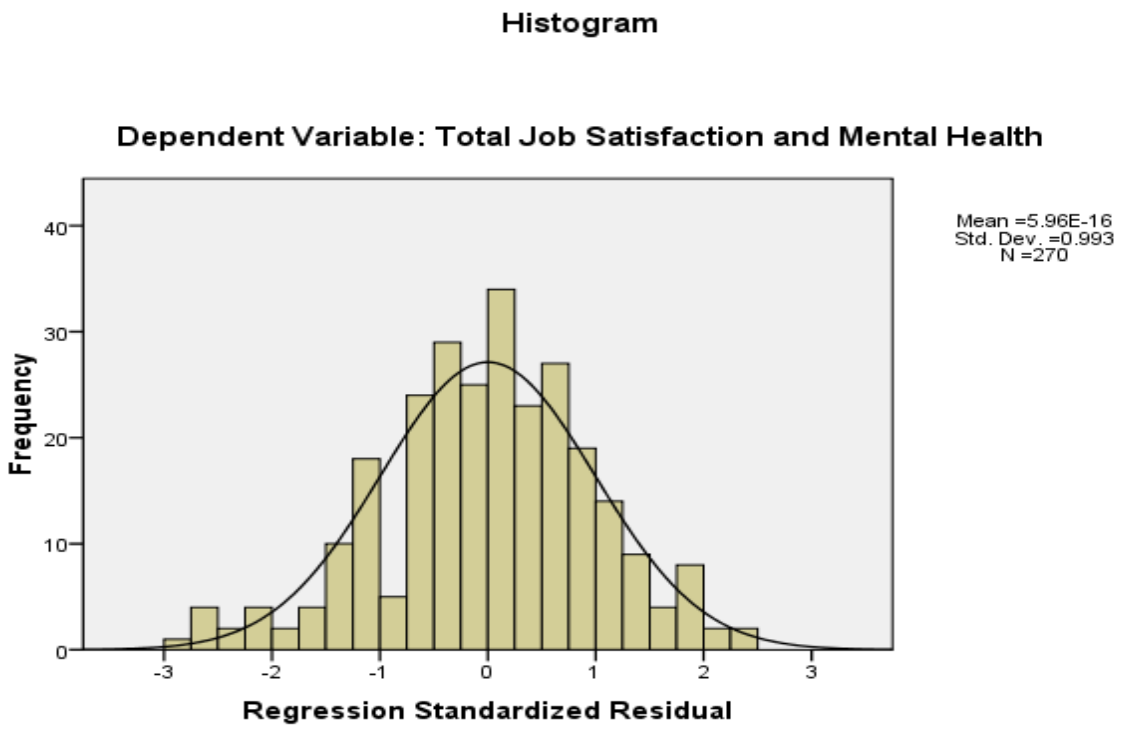

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	34.230	0.207		165.608	.000
	REGR factor score 1 for analysis 1	0.842	0.207	0.223	4.067	.000
	REGR factor score 2 for analysis 1	0.822	0.207	-.217	-3.972	.000
	REGR factor score 3 for analysis 1	0.735	0.207	.194	3.552	.000
	REGR factor score 4 for analysis 1	1.011	0.207	-.267	-4.881	.000
a. Dependent Variable: Total Job Satisfaction and Mental Health						

The above table indicates that P value is less than 0.05. It is highly significant. Regression factors are impacted on job satisfaction and mental health of women in IT sector.

DISCUSSION - INSIGHTS ON WOMEN IN IT SECTORS: NAVIGATING THE GLASS CEILING'S IMPACT ON MENTAL HEALTH AND JOB SATISFACTION

From the descriptive statistics, it is observed that the mean score for 'Breaking Down Bias' (E8) is 4.66, with a standard deviation (SD) of 0.898, indicating that this factor contributes most significantly to the glass ceiling effect. Conversely, the lowest mean score of 2.29 and SD of 1.398 is for 'Confirmation Bias' (E5). The mean scores for factors E7 and E8 are 0.898 and 1.105, respectively, while the mean scores for E1, E2, E3, E4, E6, and E10 range

between 3 and 4. Additionally, the mean score for E9 is 2.95 with an SD of 2.95, indicating a lower impact compared to other factors.Overall, the factor 'Breaking Down Bias' (E8) has the highest mean score, suggesting that it is the most significant contributor to the glass ceiling effect for women in the IT sector. This highlights the crucial role of addressing bias in overcoming barriers to career progression for women in IT.The factor analysis reveals that four factors were extracted from the original fourteen variables. Based on the rotated factor matrix, the variables GL3, GL5, GL8, and GL13 exhibit factor loadings of 0.745, 0.741, 0.592, and 0.525, respectively, on Factor 1. This factor, which includes these four variables, is labeled as 'Restrictions to Women in the IT Sector.'Factor 2 combines the variables GL6, GL14, GL9, and GL11, with factor loadings of 0.734, 0.682, 0.643, and 0.465, respectively. These variables are grouped under the factor called 'Hard Factors.'Factor 3 includes two variables: GL1 and GL4, with factor loadings of 0.736 and 0.457. This factor is identified as the 'Work Bias Factor,' reflecting the combination of these two variables.Factor 4 comprises four variables: GL7, GL12, GL2, and GL10, with factor loadings of 0.754, 0.635, 0.449, and 0.267. These variables are grouped under the factor labeled 'Workplace Factors.'Among these, Factor 1, 'Restrictions to Women in the IT Sector,' is identified as the most influential factor contributing to the glass ceiling in the IT sector in Chennai.

The ANOVA results show that the p-value is less than 0.05, indicating a significant difference among the variables of the glass ceiling in relation to job satisfaction and mental health of women in the IT sector.Additionally, the regression analysis reveals that the p-value is also less than 0.05, confirming a highly significant impact. The regression factors are found to influence both job satisfaction and mental health among women in the IT sector.From the findings of the research, it is suggested that since "Breaking Down Bias" (E8) was identified as the most significant factor contributing to the glass ceiling, it is essential for organizations to actively work on eliminating gender bias in recruitment, performance evaluations, promotions, and daily operations. Training programs on unconscious bias, diversity, and inclusion should be implemented for all employees, especially leadership. IT Industries should offer better mentorship and leadership development programs targeted specifically at women. The study suggests a need for equal access to career development and training programs, particularly in addressing the "Restrictions to Women in the IT Sector" (Factor 1). Companies should ensure that women are not overlooked for training, skill-building opportunities, or advancement due to gender bias or stereotyping.Regularly assess the impact of workplace policies on women's career advancement, mental health and job satisfaction. This can be done through employee feedback surveys and follow up assessments, ensuring that changes are effective and that any persistent barriers to career growth are addressed.Transparent career progression and promotion policies can help eliminate any ambiguity around opportunities and reduce the sense of isolation or unfair treatment among women in the sector. Clear guidelines regarding how women can advance to leadership roles will empower them to strive for success without fear of discrimination.By focusing on these areas, organizations in the IT sector can create a more equitable and supportive environment, fostering both the career development and mental health of women, ultimately leading to increased job satisfaction and retention.

This study highlights the challenges women face in the Information Technology (IT) sector, primarily due to the pervasive glass ceiling that restricts their career growth. Women in IT encounter a range of barriers, including gender bias, limited opportunities for advancement, lack of recognition and insufficient access to equal opportunities. These factors are not only hinder their professional progression but also have a profound impact on their mental health, contributing to stress, emotional imbalances, low self confidence, burnout and other psychological challenges. The glass ceiling creates a work environment where women experience lower job satisfaction which can lead to absenteeism, stress and efficient output. IT industries must take concrete actions to break the glass ceiling by implementing proper steps, offering mentorship, training program and ensuring equal access to professional development opportunities.

REFERENCES

[1] Rushal, J.(2023). The impact of corporate glass ceiling elements on female employees' organizational commitment,.*Journal of Advanced Management Science*,*6*(12), pp.153-180.

[2] Jhon.K (2023). The Glass Ceiling and Women's Career Advancement: Insights from the Nigerian Construction Industry,.*Iranian Journal of Management Studies*,*7*(8), pp.66-75.

Research Article

[3] RajeshGowr, N.D. (2023). Glass ceiling and women employees in Asian organizations: A tri-decadal review.*Asia-Pacific Journal of Business Administration*,*9*(3), 232-246.

[4] Salleh, R., Nair, M.S., & Harun, H. (2012). "Breaking the Glass Ceiling: The Evolution of Women Employees in Asian Organizations Over Three Decades".*Academy Management Journal*,*56*(6),pp.46-53.

[5] Narashimmapandian.Y (2024). "Exploring the Link Between Job Satisfaction and Employee Turnover at Kirby Forensic Psychiatric Center"*, MK University*. Ph.DThises, Madurai.

[6] Sachin, F. (2024). "Exploring Gender Differences in Employee Departures at a Large Organization". *HRM Management Review,20(4)pp*.84-95

[7] Vignesh A ”Employment Security Through Social Security Schemes” European Chemical Bulletin, Vol. 12, Issue 10, ISSN: 2063 - 5346 July 2023

[8] Vignesh. A., (2022) Employees Perspective on Digital Banking. Asian Journal of Management. 2022;13(3):223-6. doi: 10.52711/2321-5763.2022.00039

[9] Vignesh, A., & Nagarajan, P. S. (2018). Hr Practices In Manufacturing Startups. ZENITH International Restaurant Business, 118(6), 0097-8043.

[10] Vignesh, A., & Nagarajan, P. S. (2018). Opportunities and challenges of implementing ERP in Indian startups. ZENITH International Journal of Business Economics & Management Research, 8(2), 185-197.

[11] Vignesh, A., & Nagarajan, P. S. Hr Practices and their Collision on Employees Job Satisfaction and Organizational Commitment. International Journal of Advanced Research in Management and Social Sciences, Greenfield Advanced Research Publishing House, 6 (12), 2278-6236.

[12] Vignesh, A., & Nagarajan, P. S. (2018). Prospects and Challenges of Indian Micro, Small and Medium Enterprises. International Journal of Organisational Behaviour and Management Perspectives" Pezzottaite Journals, 6(2), 3438 – 3445.

[13] Vignesh A. Nagarajan P. S., An Empirical Study on Effectiveness of Training and Development of Employees in TIDC India, Chennai. International Journal of Management Research and Social Science, 4 (1), 37 – 41

WEBSITE

https://www.investopedia.com

https://en.wikipedia.org

https://bultin.com

www.frontiersin.org