



Psychological Capital and Perceived Stress among the Employees from Cement Industries at Ariyalur, Tamil Nadu

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Received: 10.02.2026; Accepted: 18.07.2026; Available online: 31.07.2026

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Abstract

This paper examines the relationship between Psychological Capital (PsyCap) and Perceived Stress (PSS) among employees working in the cement industries of Ariyalur, Tamil Nadu. PsyCap – comprising hope, efficacy, resilience, and optimism – is a crucial personal resource that helps employees cope with demanding and high-pressure industrial environments. The study adopts a descriptive research design, collecting data from 163 permanent employees through simple random sampling. Standardized tools, including the 24-item Psychological Capital Scale and the 10-item Perceived Stress Scale, were used along with statistical analyses such as Karl Pearson's correlation and Independent Sample 't'-tests.

The findings reveal a significant negative correlation between PsyCap and perceived stress – employees with higher PsyCap consistently reported lower stress levels. Age and marital status were also significantly associated with these variables, with older and married employees showing lower perceived stress and higher PsyCap. The study underscores the importance of developing PsyCap among industrial workers to improve well-being, resilience, and overall performance. Recommendations include structured interventions to enhance self-efficacy, optimism, coping strategies, and expanding wellness programs in the workplace.

Given the strenuous nature of cement industry operations – characterized by heavy physical tasks, rotating shifts, exposure to heat and dust, and intense production pressures – the psychological well-being of employees becomes a critical factor influencing engagement, morale, and retention. Strengthening PsyCap can serve as a preventive and empowering strategy, enabling employees to bounce back from challenges, maintain a positive mindset, and believe in their ability to handle work demands. Organizations are encouraged to conduct regular stress assessments, promote mental health awareness, train supervisors in supportive leadership, and build peer-support systems. Investing in PsyCap does not

merely enhance individual well-being but also contributes to a more stable, resilient, and productive workforce, reinforcing its vital role within industrial settings.

Keywords: Age, Employees, Perceived Stress, Psychological Capital, Stress.

Introduction:

Psychological Capital (PsyCap) refers to an individual's positive frame of psychological growth, made up of four core aspects: self-efficacy, optimism, hope, and resilience. The relation of these resources to Perceived Stress, affects both employees and the organizations they work for.

Cement industry employees work in a challenging and often demanding environment that can have an impact on their health and performance. Psychological capital gives individuals a way to handle these pressure environments. This study examines among employees of cement industry, how psychological capital is connected to perceived stress, and how these companies rely upon it to reduce stress and improve employee well-being.

Basically, work in the cement industry is stressful, where employees need to handle complicated tasks, work on tight deadlines, and also follow all safety protocols. In this background, psychological capital becomes more beneficial, helping employees stay positive, and cope with pressure. Companies that focus on improving it will equip their employees to perform better.

Psychological capital impacts the experience of employees in the cement industry and their response to handling stress. Employees with higher psychological capital will be able to handle difficult situations better, stay positive, and recover faster from issues. This supports better overall well-being.

Psychological capital plays an important role in how employees in cement industry recognise and manage stress. Companies that create a positive, resilient mindset among their employees will put them in a better place to handle challenging conditions and perform better. By providing initiatives that build psychological capital, companies can help create a healthier work environment and long-term organizational success.

Aim:

This study sets out to examine the relationship between Psychological Capital (PsyCap) and Perceived Stress (PSS) among Employees from Cement Industries at Ariyalur, Tamil Nadu, guided by the following specific objectives:

Objectives:

1. To explore the chosen socio-demographic profile Employees.
2. To determine the level of PsyCap
3. To determine the level of PSS
4. To examine the relationship between selected socio demographic factors, PsyCap and PSS. To measure the level of PSS

Research Design:

For the present study the researcher has adopted **descriptive research design**. Since the study sets out to describe the socio-demographic profile, PsyCap, and PSS, and to examine how these variables relate to one another, a descriptive design was considered the most suitable fit.

Research Hypotheses:

After reviewing many relevant literatures, the below Research Hypotheses have been arrived:

1. If the Psychological Capital is higher, the Perceived Stress will be lower.
2. If the Age is higher, Perceived Stress will be lower, and subsequently Psychological Capital will be higher.
3. Will have lesser Perceived Stress and higher Psychological Capital among married employees.

Universe:

From the Government records it has been identified that there are about 1570 permanent employees, who are working from 11 Cement Industries at Ariyalur district, Tamil Nadu. All the permanent employees will constitute the Universe for this study.

Inclusion Exclusion Conditions:**Inclusion:**

1. All the male and female employees.
2. Employees who are working within Ariyalur District.

Exclusion:

1. Those who are not willing to respond for the study
2. Those who have not completed all the questions in the data collection tool used.

Sampling:

- The researcher has met the officials of the Human Resource Department of the company and took permission.
- Gathered the WhatsApp numbers of all the permanent employees.
- Prepared a Google format incorporating all the research tools required.
- Circulated the form among the employees and got their permission for the study and collected the data from 163 employees from various organisations.
- A **simple random sampling method** was used for this study.

Tools For Data Collection:

- To know the socio-demographic conditions of the sample a semi-structured interview schedule was prepared, which had open-ended and close-ended questions.
- The 24 items Psychological Capital Scale, on a 6-point Likert scale by Luthans, et.al., (2007),
- The 10 items Perceived Stress Scale by Sheldon Cohen (1994) were used for the study.
- Both the tools have high reliability & validity.

Data Analysis:

- The data was obtained through Google Forms.
- The collected data was corrected, and Normality tests were done for the variables and found to be Normal.
- The data was analyzed using the trial version of Statistical Package for Social Sciences (SPSS) Version 20.
- To verify the hypotheses, Karl Pearson's Coefficient of Correlation, Independent Sample 't'-Test were used and accordingly inferences have been arrived.

Findings:

Table: 1:
Distribution of Employees based on Selected Socio Demographic conditions:

NO	FACTORS	N (163)	%
1	AGE		
	1. (BELOW 30)	54	33.1
	2. (31 TO 40)	77	47.2
	3. (41 & ABOVE)	32	19.6
2	DESIGNATION		
	1. NON - MGRL	21	12.9
	2. OFFICER - ASST MGR	85	52.1
	3. DY MG - MGR	42	25.8
	4. SR MGR & ABOVE	15	9.2
3	EDUCATION		
	1. BELOW UG	28	17.2
	2. UG	83	50.9
	3. PG	52	31.9
4	EXPERIENCE		
	1 (BELOW 10)	71	43.6
	2 (11 TO 20)	79	48.5
	3 (21 & ABOVE)	13	8.0

NO	FACTORS	N (163)	%
5	RELIGION		
	1 HINDU	132	81.0
	2 MUSLIUM	16	9.8
	3 CHRISTIAN	15	9.2
6	PLACE OF LIVING		
	1. WITHIN TOWNSHIP	122	74.8
	2. OUTSIDE TOWNSHIP	41	25.2
7	MARITAL STATUS		
	1. MARRIED	105	64.4
	2. UNMARRIED	58	35.6
8	TOTAL ANNUAL INCOME		
	1 (BELOW 5 L)	34	20.9
	2 (5L TO 15L)	93	57.1
	3 (ABOVE 15L)	36	22.1

The socio-demographic distribution of the sample is presented below.

- Nearly half of the employees (47.2%) are in the age group of (31 to 40) Years.
- Just above half of them (52.1%) are Officer/ Assistant Managers.
- Nearly one third of them (31.9%) are educated up to Post Graduation.
- Nearly one tenth (8.0%) of them are serving more than 21 years.
- Majority of them (81.0%) are Hindus.
- Living with in Township (74.8%).
- Married (64.4%).
- Just above two tenth of them (22.1%) earn more than 15 lakhs as Total Family income.

Findings

Table:2:
Karl Pearson's Correlation Values for the Sub domains of Psychological Capital.

No	Factors of PC	PC1	PC2	PC3	PC4	Total
1	PC1: Self Efficacy	1.0				
2	PC2: Optimism	0.574(**)	1.0			
3	PC3: Hope	0.631(**)	0.645(**)	1.0		
4	PC4: Resilience	0.511(**)	0.495(**)	0.596(**)	1.0	

5	Total Psychological Capital Score	0.819(**)	0.819(**)	0.870(**)	0.794(**)	1.0
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** Correlation is significant at the 0.01 level (1-tailed)

- The table shows the correlations among the sub-domains of Psychological Capital and their relationship with the total score.
- Karl Pearson's Coefficient of Correlation shows a positive, significant relationship among the sub-domains as well as the total PsyCap Score.

Findings

Table: 3:

Karl Pearson's Correlation Values for the Psychological Capital and Perceived Stress:

No	Factors of PC	PS: Total Perceived Stress
1	PC: Self Efficacy	-0.240(**)
2	PC: Optimism	-0.460(**)
3	PC: Hope	-0.299(**)
4	PC: Resilience	-0.255(**)
5	Total PC: Psychological Capital Score	-0.379(**)

** Correlation is significant at the 0.01 level (1-tailed)

- The table shows that the total PsyCap score is negatively and significantly correlated with Perceived Stress ($r = -0.379$, $p < .001$, sig).
- Further, it is very obvious from the table that all the sub-domains of PsyCap are negatively and significantly associated with total Perceived Stress.
- This suggests that higher Psychological Capital is associated with lower Perceived Stress.
- Thus, the formulated hypothesis verified.

Findings

Table: 4:

Independent Sample 't' Test results:

No	PSS: Perceived Stress Score	N	Mean	SD	't' Test Value (df=161)
	1. Married	105	54.58	10.85	8.46
1	2. Unmarried	58	68.52	9.61	P<.001
	Total	163	68.95	7.28	Sig
No	PsyCap: Psychological Capital Score	N	Mean	SD	't' Test Value (df=161)
	1. Married	105	68.79	9.14	9.52
2	2. Unmarried	58	58.11	8.56	P<.001
	Total	163	69.34	8.67	Sig

- It is reported that **Married employees have less perceived stress score** (54.58%) compared to unmarried employees, a difference that is statistically significant, as shown by the Independent Sample 't' test. ('t' Value = 8.46, $p < .001$, Sig).
- It is found out that Married employees have more Psychological Capital score (68.79%) compared to unmarried employees, a difference that is statistically significant, as shown by the Independent Sample 't' test. ('t' Value = 9.52, $p < .001$, Sig).
- Thus, the formulated Hypotheses are verified.

Findings

Table: 5:

Karl Pearson's Correlation Values for the Psychological Capital, Perceived Stress and Age:

No	Factors	Age
1	PSS: Perceived Stress Score	-0.411(**)
2	PsyCap: Total Psychological Capital Score	0.613(**)
** Correlation is significant at the 0.01 level (1-tailed)		

- Age is negatively and significantly associated with the level of Perceived Stress. ($r = -0.411$, $p < .001$, Sig).
- Age is positively and significantly associated with the level of Psychological Capital Score ($r = 0.613$, $p < .001$, Sig).
- In other words, older employees tend to report lower stress and higher psychological capital.
- Thus, the formulated Hypotheses are verified.

Suggestions:

Based on these findings, the researcher would suggest the following to improve Psychological Capital:

Focusing on past achievements and daily progress

- Focusing on past successes, previous incidents where you overcame challenges through continuous efforts, can build confidence in facing what comes next.
- Making small and constant steps toward the goals every day. Monitor your everyday progress honestly as a daily routine. Every small achievement creates a sense that you are moving forward; over time, it helps push yourself further.

Social modelling

- Closely observing people who already have the skills you want to build. See how they set goals, handle challenges, and try replicating the same by adapting to your requirements.
- Set SMART goals that are measurable and time-bound rather than ambiguous. Break them into small tasks and try accomplishing them in stages.
- Take feedback from seniors and peers, and start working on the areas that will help you improve.

Reframe negative experience

- All negative experience need not to be defined as bad, it can also be seen as an opportunity for improvement. Respecting and acknowledging what strengths a difficult experience has highlighted, and what was the learning out of that

situation, can reduce its effect on your psychological framework over a period of time.

- Working on one area of your strength at a time, even with small progress, can build the energy required to handle future challenges along the way.
- Every day focusing on what is going well, will help create a positive mindset and confidence. Practising this over time will create an inclination towards favourable results, which will motivate you to look for more opportunities in difficult situations rather than close them as a bad experience.

Based on these findings, the researcher would also suggest the following to reduce Perceived Stress:

Improve workplace wellness

- Even simple workplace wellness can make a difference. Providing healthy snacks in the break, everyday step-challenge, gym memberships, or on-site ergonomics classes will suggest that employee well-being matters for the organisation. Flexible working hours wherever possible will also help the work-life balance among employees, reducing stress.
- Encouraging employees to take lunch breaks away from their desk, providing reasonable vacation, and minimising work-related calls and emails after working hours. When this is driven by leadership, it can visibly create a difference in employees' experience and mindset.

Change in living and working conditions

- Improving the physical environment in the workplace and home can also help reduce perceived stress. Conscious designing of physical environments focusing on calmness and relaxation can have a good effect on employees' mental health.
- Small conscious changes like more natural environments, better lighting, room colours and surfaces that are relaxing can help employees become more energetic rather than getting drained easily. Over time, such changes can help create an environment that feels calmer and more supportive, which can result in the improvement of employees' emotional well-being.

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