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# IMPACT OF SAFETY CLIMATE ON JOB PERFORMANCE AND JOB SATISFACTION WITH MODERATING ROLE OF PSYCHOLOGICAL CAPITAL IN PAKHISTAN

# WPŁYW KLIMATU BEZPIECZEŃSTWA NA WYDAJNOŚĆ I SATYSFAKCJĘ PRACY Z MODERUJĄCĄ ROLĄ KAPITAŁU PSYCHOLOGICZNEGO W PAKISTANIE

#### Abstract

The current research investigated the effect of safety climate on job satisfaction and job performance with psychological capital as a moderator between safety climate and job satisfaction as well as job performance. This research fills the gap by collecting empirical evidence from the emerging organizations of Pakistan. Conservation of resource theory (COR) is relevant to the research area. Data were collected from 300 employees from different Organizations. The current study is empirical and quantitative-based study is used to conducted research. Data were collected by convenient non-probability sampling techniques to be used and collected from employees working in the reputed organization; Chemical, Cement, Petroleum, Oil and Gas industry of Islamabad and Rawalpindi. Confirmatory Factor analysis was done through AMOS and hypotheses were tested through SPSS regression analysis process of Hayes model. To test the moderation effects, the process of Hayes model 1 was also performed. Safety climate has a positive relationship with ISSN 2450-2146 / E-ISSN 2451-1064

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the two DVs which are job performance and job satisfaction. Moreover, Psychological Capital played a significant moderating role between safety climate and job satisfaction as well as job performance. When Psychological capital was high, the relationship between safety climate and job performance as well as the relationship between safety climate and job satisfaction were stronger. These results are important for future studies. This research recommended top management and responsible authorities to promote safety climate activates between their organization in order to enhance their employees satisfy and high performed. Moreover, this research strongly recommends psychological capital amongst organization looking for highly satisfied and effective employees. Further implications for practice were discussed in detail.

**Keywords:** Safety climate, Job Satisfaction, Job Performance, psychological Capital, Conservation of Resource Theory, Public Sector Organization Rawalpindi and Islamabad

### Streszczenie

Badania opisane w niniejszym artykule dotyczyły wpływu poczucia bezpieczeństwa na satysfakcje z pracy i wydajność pracy z kapitałem psychologicznym jako moderatorem miedzy klimatem bezpieczeństwa a satysfakcją z pracy, a także wydajnością pracy. Badania te wypełniają luke, zbierając dowody empiryczne od organizacji w Pakistanie. Dane zebrano od 300 pracowników różnych organizacji. Ochrona teorii zasobów (COR) jest istotna dla obszaru niniejszych badań. Przeprowadzone badanie ma charakter empiryczny, wykorzystano również badania ilościowe. Dane zebrano za pomoca wygodnych technik próbkowania, od pracowników pracujacych w renomowanych organizacjach przemysłu chemicznego, cementowego, naftowego i gazowego w Islamabadzie i Rawalpindi. Analize czynnika potwierdzającego przeprowadzono za pomocą AMOS, a hipotezy przetestowano za pomocą procesu analizy regresji SPSS modelu Havesa. Aby przetestować efekty moderacji, zastosowano również model 1 Hayesa. Klimat bezpieczeństwa ma pozytywne relacje z wydajnością pracy i satysfakcją z pracy. Kapitał psychologiczny również odegrał znaczącą rolę moderującą pomiędzy klimatem bezpieczeństwa i satysfakcją z pracy, a także wydajnością pracy. Gdy kapitał psychologiczny był wysoki, silniejszy był związek między klimatem bezpieczeństwa a wydajnością pracy, a także związek między klimatem bezpieczeństwa a satysfakcją z pracy. Wyniki te są ważne dlą przyszłych badań. Kierownictwu wyższego szczebla i odpowiedzialnym władzom zaleca się promowanie klimatu bezpieczeństwa w ich organizacjach w celu zwiększenia zadowolenia i wysokiej jakości pracy pracowników. Ponadto badania te zdecydowanie zalecają zastosowanie kapitału psychologicznego wśród organizacji poszukujących wysoko zadowolonych i skutecznych pracowników.

Słowa kluczowe: klimat bezpieczeństwa, satysfakcja z pracy, wydajność pracy, kapitał psychologiczny, teoria ochrony zasobów, organizacja sektora publicznego Rawalpindi i Islamabad.

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# Statement of the problem in general outlook and its connection with important scientific and practical tasks.

Human resources management (HRM) refers to the procedure, practices, policies, and systems that influence employees' behaviors, attitudes, and performance. Many companies refer to HRM as "people practices". Human resources are indicators of safety and health, and HR can be key sources of workplace safety management such as safety climate and health at work (Kyoung-Ok Park, 2017). Employees fulfill their safety climate and health responsibilities as outlined in the organizational policies and programs. In many organizations, health and safety responsibilities are within the human resources department. In order to meet these responsibilities, human resources professionals must understand the health and safety responsibilities of employers, managers, supervisors, and employees within the organization (HSE, 2017). Researchers have confirmed that effective management actions are very imperative for leading worker perceptions of safety climate in the workplace (Lee et al., 2018). Organizational occupational health and safety climate is a major problem which is faced by every industry (Aziz et al., 2015). The influence of safety climate on industrial work-related injuries, diseases, and accidents have confirmed through many analytical kinds of research. These findings point out the safety climate at a higher level to reduce the work-related injuries, diseases' and accident rate. The association between safety climate, work-related diseases, and injuries its positive effect of worker performance and life satisfaction. Safety climate was anticipated to positively affect the safety behaviors of employees and their performance (Wang et al., 2018). The work-related safety and health past studies literature have acknowledged

many components provided to health and safety in the workplace (Hofmann et al., 2017). Fitchett (2018) as examined that safety climate is compulsory for every organization whose core objectives to the enhancement of employees satisfaction. Latest studies stated that the safety climate refers only to the workers' perception of the value of safety in the work environment. which is at the level of organization. The safety climate is mainly divided into three dimensions, including employees attention. safety environment, and safety supervision (Mudan Wang 2018). Safety climate is a key analyst of safety outcomes such as work-related diseases, accidents, and injuries. The theoretical fundamentals of safety climate explore how the construct can be applied to different levels of analysis. Safety climate influences individual processes of sense-making, motivation, and work behavior. The vast majority of industrial accident and diseases is generated by dangerous unsafe behavior. The researcher also has examined that the behaviors could be influenced by the safety climate. The safety behavior belongs to individual levels, while the safety climate belongs to the organization level (Wang et al., 2018). Previous researches related to safety environment investigated that the workers, working at dangerous industries and environment such as cloth, Fabric, chemicals, cement, electrical, Oil and Gas electronic endure increasing the rates of work-related accidents and employees has suffered from different diseases like headache, lungs infection or cancer and also faces skin and eyes allergies(Aziz et al., 2017). In current era industries are facing issue and problems day by day related to poor safety environments therefore, in an organized health and safety

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system essentially make stronger (Roche, 2017). In order to avoid or at least reducing occupational accidents, many legislative acts have been taken mainly on a technical and legal basis for many last years. In spite of this, the number of occupational accidents is going up (Bergman et al., 2016). Safety climate is not completely regulated by an organization, but it's also allowed by workers' perceptions, consciousness, and the sympathy towards the basic safety strategy of the organization (Clarke et al., 2017). From the previous study to current in order to reduce job-related accidents regulation based on this factor has been made. The conversation related to these work-related accidents keep on rising day by day (Bergman et al., 2016). In addition, workrelated accidents influence to depression of worker satisfaction of industries & for that reason decrease job performance (Haluk, 2016).

As Pakistan is a developing country and there are fewer resources for Pakistani organization to achieve the task effectively and efficiently. Safety climate is a factor in which employee feel that they are secure in the organization. Employee's work in this organization facing many problems like their salary and other benefits they want to get from their organization. In current study find out the response of Pakistani employees about their job satisfaction as well as job performances through the Safety climate on the context of Psychological Capital.

Review of the literature regarding safety climate, job performance, job satisfaction, and psychological capital give rise to the following questions.

- What is the impact of safety climate on job performance?
- What is the impact of safety climate on job satisfaction?
- What is the role of psychological capital in effecting the relationship between Safety climate and job Satisfaction?
- What is the role of psychological capital in effecting the relationship between Safety climate and job performance?

Safety is a comprehensive perception that involves efficiency, effectiveness, security for care, the reactivity of caregivers, and the agreement of employees at the workplace. Thus, it's important for the investigator to perform work in accordance with encourage safety climate and publicize its significance to workplace at whole for employees.

# Analysis of latest research where the solution of the problem was initiated.

## Safety climate:

Safety climate in the organization reflects the shared rule policy, procedure, objective and practices of an organization that satisfy organizational ambitions related to safely working climate and safe environment (Larsson et al., 2017). In most of the organization and corporation safety climate share rule, procedures, practices, norm, and perception concerning safe working practices to the employee (Nielsen, Eid, Mearns, & Larsson, 2013). Safety climate is a state where an employee has no risk about himself. Safety climate does not bond just to capture procedures on technical and legal levels in an organization in order to reduce occupational accident rates of human an organization has to concentrate employee health and safety factors (Zohar et al., 2016). The ideas of organizational safety climate are to capture worker awareness of safety behavior as well as decision making commitment, feelings, and emotion about safety (Dursun et al., 2016). Giles (2011) suggested that particularly workers must be

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acknowledgeable of individual safety climate because the corporation working environment can be dangerous and inconvenience. In any organization, the workers' apprehension about the safety climate influences due to the employees' inclination that holds away from their jobs, work activities. and climate (Blewett, Rainbird, Dorrian, Paterson, & Cattani, 2012). Lin (2012) communicate that the organizational employee job satisfaction has been raised when the emergency of the employee injuries in the work climate has been marked down. Lin reported the familiar investigation, he states that strong and respected safety climate effects due to employees' job satisfaction and working performance. Gilkey (2012) determined that enhanced a safe climate and developed safety values, beliefs results with minor damage and illness proportions.

Safety implementation represents the required core safety actions that are needed to be carried out to retain a safe workplace (Hu, Griffin, & Bertuleit, 2016). Safety Climate Tool to have validated in construction, food and steel industries (Yusuf et al., 2016). Safety climate-related to belief, process and a practice that an organization provides to its employees (Fin et al., 2000). Its purpose is to create an environment that mentally satisfied its workers. Safety management provides physical as well as mental protection (Phillips et al., 2004). When the workers are mentally and physically covered by these safety climates, they are more allegiance towards their organizational and this faithfulness makes organization steps towards prosperity and success (Crossman et al., 2008).

Safety climate is a perception of safety behavior and safety outcomes of employee activities in the organization (Christian et al., 2009). Perlman and Lippert (2013) interpreted that it certainly behaves fully for an

organization to create a safety climate to the stop or decrease work-related deaths due to injuries and illness. Safety climate is the perception of the employee on their organization about their safety workplace (Zohar et al., 1980). An organization and industry sector which encourage safety environment have fewer injuries and illness on the job, its main purpose is to motivate a high level of worker job satisfaction and should be answerable in manufacturing as well as transportation fields (Bahm et al., 2009). An employee who works in safety pleasant surroundings is more incentive in the direction of his work and gives better work performance (Christian et al., 2009). ILO (2015) reported that the issues related to safety climate are more inspected in the developing countries rather than developed countries due to poor working sources.

### Job performance

Muhammad (2015) has stated that job satisfaction impacts vividly and significantly on job performance in the organization. According to Kappagoda (2014), the performance of an employee plays a vital role to meet and achieve the goals of any organization (Wang, et al., 2015). Because in any organization the performance of the worker is one of the important concepts which directly influences work stead needs to be said (Arvey & Murphy, 1998). Job performance is a worker's ways of conduction in their organization to complete their duties. The performance of an employee plays a vital role in organizational success (Wang et al., 2015). Because its employees' action which fulfills the organization objective and organization goals (Miraglia et al., 2015). Robbins (2013) stated that if job satisfaction is the process of taking measurement of employees' works that they did in the organization than job performance is employees' action toward their job and how to achieve their task effectively. Because

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job performance is the action of the employee to perform their work in the present and also ready for the future (Gonsalves et al., 2003).

Job performance is employees task to achieve organizational objective and goal and by encouraging the motivation of an employee (Miraglia et al., 2015). An organization Job performance of the people is thought to be the most important keys factor which plays a vital role to accomplish better industrial performance and goal (Wang et al., 2015). Because of this employees' must be encouraged and self-motivated for their better performance (Snyder et al., 2000). Nahrgang (2011) states that by collecting the different results from past studied of positive job performance it is proved that a safe working environment is the only reason which motivates and provide better training to employees. Millcy and Gonsalves (2003) identified that there are some reasons which upset the organization work's performance like a manager's behavior such as: speedily speaking and little sound and confusion in the working climate. Because the behavior of the whole zone of the organization is considered to be important in order to measure the performance of the job. Good job performance of an employee leads to organizational success said by (Wang et al., 2015). The theory of COR is considered as one of the modern organization models. This theory gives many ways to attaining the highest level of stages of performance.

#### Safety climate and Job performance

Job Performance as it is an action of employees towards the set target in order to achieve an organizational goal along with its safety climate as well as group support (Miragila et al., 2015). Chen, McCabeand Hyatt (2017) also argued that employees perform high in a workplace where they

feel high safety climate. They also indicated that through safety climate, an organization can sustain the high performance of their workers through the creation of a comparable environment and safety climate. Torun (2010) stated that if an organization wants to gain a global competitive advantage then it's necessary for it to try to focus on employee performance by providing them benefits like the safety workplace. For example, in china employees like pilot and technicians are put under the safety climate in order to get positive consequences in job performance. Employees are satisfied with the job and they endeavor to perform as best as possible because of this the level of job performance is high (Baba et al., 2009). Safety climate left a positive impact on job performance of employees. The number of the study explains the positive relationship of safety climate and job performance according to (Fogarty and Shaw, 2010) and (Huang et al., 2010).

H1: Safety climate is significantly and positively related to job performance.

#### Job satisfaction

Job satisfaction has explained by Pan and colleagues (2015) it's a positive expressive event rising from the estimation of job practices. It is the performance of an individual in any organization to achieve their goal; resources are an employee characteristic that they used to achieve their job effectiveness by (Ghohel et al., 2012). Baba investigated that getting higher the safety climate it's possible for an organization to improve job satisfaction among with job performance. One of the best examples is a research which has been done in the past on pilots, ground and technician service area staffs that are working in the Chinese flying sector. These studies throw light on a strong and significant relationship between job

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# performance and safety climate perception (Baba et al., 2016).

Job satisfaction has explained by Pan and colleagues (2015) as it's a positive outcome arising from the estimation of job practices. Hence job satisfaction is positive behavior between the employees and their organization. This helps in organizations development, core competencies among competitive hedge (Malang, 2013). Job Satisfaction is calculated on the base of employee's past work they did and current performance in an organization (baba et al., 2012). Hedge and Bormann (2012) has expanded the studies and stated that job satisfaction notified five features of the employment those are: the work himself, satisfaction with a manager, satisfaction as well as workmates, advancement, and salary.

### Safety Climate and Job satisfaction

Safety climate promotes job satisfaction among employees as they feel comfortable and easy in a workplace with high safety climate (Zhenget al., 2017). Hashish (2017) further believed that safety climate does not only produce or generate high satisfaction among employees but also build organization commitment and reduce the turnover intentions which in turn configure organizations success.

H2: Safety climate is significantly and positively related to job satisfaction.

## **Psychological Capital**

The idea of psychological capital (Psy Cap) is the recent concepts of the (OCB) organizational behavior in the field of business management (Peterson &Seligman, 2004 (Avey, et al., 2010). Psychological capital (Psy Cap) has four components, i) "self-efficacy" ii) "hope" iii) "optimism", and "resilience", which have represented by Individual incomes are presented for beneficial in the place of work (Avey et al., 2009). Luthans (2007) define psychological capital as

"the study and presentation of clearly concerned with human capital and resource strong point and psychological sizes that could have been measured devolving and efficiently succeeded for the performance increase in today's place of work". PsyCap was formalized by Luthans and others (2007) at the volume of PsyCap formulating the Human core competencies which mostly researcher was used specialists in the organizational success and progress. Lewis (2011) highlighted that Psychological Capital is one of the greatest significant means in achieving the most important organization performance. Psychological Capital that the expressed as individual character delivering to separate output by psychologists (Gohel, 2012).

Psychological Capital states to performance of an individual in any organization to achieve their goal, Psychological Capital is the attention of individual toward organization goal (Kappagoda et al., 2014). Psychological capital is the factor that can significantly help organizations to improve their employees' innovative behaviors in the presence of high working supports and leadership qualities (Jived et al., 2017). It is also argued by Bouckenooghe, Zafar and Raja (2015) that psychological capital mediates the relationship between safety climate and job performance.

Hence, it gave strong supported to our results in the context of psychological capital as a moderator which can significantly improve the relationship between safety climate and job performance.

Psychological Capital has two other types of capital, social capital, and human capital. These two types are also found a positive effect on performance (Millard, 2011). Nelson and Cooper (2007) point out that Psychological capital has a straight correlation with the separate performance of a relating work. Luthans and colleagues (2012) point

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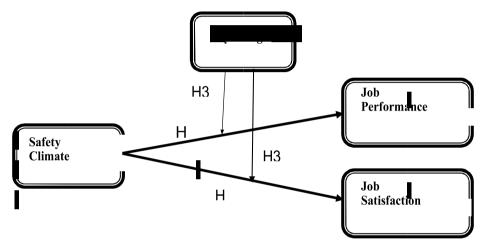
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to that Psychological Capital four measurements like self-efficacy, hope, optimism and the resilience which the use for an encouraging element and tool for the progress of organization performance and the inspire manager to ensure that systematic studies continuously. Psychological Capital through which was found as a positive forecaster of job performance which identifies several research studies (Luthans, et al., 2007; Avey, et al., 2010; Peterson & Byron, 2007).

H3a: Psychological Capital moderates the relationship between Safety climate and Job satisfaction when psychological Capital is high.

H3b: Psychological Capital moderates the relationship between Safety climate and Job performance when psychological capital is high.

## Figure 1. Research model.



Source: Own study

## Aims of paper. Methods

The current study is empirical and quantitative-based study is used to conducted research along with the influences of a moderator. Petroleum, Oil and Gas Companies, Chemical industries and Cement industry in the twin cities located in Islamabad and Rawalpindi were targeted as a sample for this study. Different levels of employees in these sectors are the main focus of this study. Nonprobability sampling technique applied, and information was gathered from the people who were conveniently available and willing to offer data.

#### MEASURES

There was 40 total item used in questioners by adding 7 items of safety climate by (Sexton et al., 2006), 3 items scale of job satisfaction adapted by (Jenkins, & Klesh, 1983), 6 items were used to check job performance of employees by (Williams, & Anderson's, 1991), while 24 items were used for psychological capital scale developed by (Luthans et al., 2007). A total of 350 selected respondent in four public sector companies that are located in Islamabad and Rawalpindi. That's are OGDCL, Mari

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Petroleum, Sitara Chemical, and Fauji cement out of which 312 questionnaires were received back. 12 were found an unconditional response and have been excluded for further analysis.

A total of 350 questioners distributed which 312 return backs survey returned 89%. After removing the questioners with missing data, 300 useful responses were left on which data analysis was performed.

Several demographic questions were included for this research i.e. gender, age, specialization, experiences and qualification of employees.

# Exposition of main material of research with complete substantiation of obtained scientific results. Discussion.

### **Descriptive Statistics:**

This study performed descriptive statistics which has shown in table 1. The descriptive statistics show means values, S.D. values, and data normality (skewness and kurtosis). Means value of safety climate is 4.88 and S.D. value is 0.9366. The mean value of psychological capital is 4.7 and its S.D. value is 0.8787, mean value of job performance is 3.8 and its S.D. is 0.9573 and finally, the mean value of job satisfaction is 4.01 and S.D. is 0.8972. Data are normal for this research because the entire variable has their skewness and kurtosis values lower than +/-2 as suggested by (George & Mallery 2010).

	Ν	Mean	S.D.	Skewness	Skewness		Kurtosis		
	Statistic	Statistic	Statistic	Statistic	S.E	Statistic	S.E		
SC	300	4.8836	.9366	-1.20	.141	.617	.281		
PsyCap	300	4.7216	.8787	-1.441	.141	1.95	.281		
JP	300	3.88	.9573	-1.395	.141	1.27	.281		
JS	300	4.0145	.8972	-1.428	.141	1.94	.281		

### **Table 1. Descriptive Statistics.**

PsyCap=Psychological Capital, SC= Safety climate, JP= Job performance, JS=Job satisfation.

Source Own study

#### **Correlation Analysis:**

We performed Pearson correlation (also referred to as bivariate correlation) in IBM\*SPSS\* 23 and the results have shown in Table 2 result showed that there is a positive association between safety climate and job performance (r = 0.20, p < 0.01), there is also significant positive association

between safety climate and job satisfaction

(r = 0.219, p < 0.01). There is significant

association between psychological capital and job performance (r = 0.218, p < 0.01) and also a significant and positive relationship between psychological capital and job satisfaction (r = 0.2662, p < 0.01). All the correlation values are below 0.80 which means there are no Multicollinearity threats in the sample.

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Variables	Mean	SD	SC	JS	JP	PsyCap
SC	4.8836	0.9366	1			
JS	4.0145	0.8972	.219**	1		
JP	3.88	0.9573	.200**	.408**	1	
PsyCap	4.72	0.8787	.333**	.266**	.218**	1

## Table 2. Correlation Coefficients.

N=300 PsyCap=Psychological Capital, SC=Safety climate, JP=Job performance, JS=Job satisfaction.

\*\*Correlation is significant at the 0.01 level (2-tailed). \*Correlation is significant at the 0.05 level (2-tailed).

Source: Own study

#### **Multicollinearity:**

We performed VIF through IBM\* SPSS\* Version 23 for SC and Psychological Capital on Job performance and job satisfaction multivariate regression performed for investigated multicollinearity. Results explained that no multicollinearity threat in the sample and each variable clarified, differential & unique variance in Job performance and job satisfaction. There are following rules and principle for the variance inflation factor (VIF), if VIF < 3 so No multicollinearity issue, if the VIF > 3: some multicollinearity threat in the sample having a Potential problem in the sample, VIF > 5: There is Small multicollinearity problem of sample,

while If VIF > 10: Have a problem. The results presented in Table 3 indicate that all the cut off values of VIF are below 10 as recommended by (Hair, Black & Anderson, 2010) and the tolerance values for all the factors are above 0.10 and close to 1.0 indicate good results (O'Brien, 2002).

### Table 3. Variance Inflation Factor (VIF).

		Colinearity	Colinearity Statistics				
Мос	lel	Tolerance	VIF				
1	SC	.889	1.125				
	PsyCap	.889	1.125				

a. Dependent Variables: JP and

Coefficients

Source: Own study

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## **Common Method Bias:**

In order to know about common method bias (CMB), we applied Harman's one-factor test in IBM\* SPSS\* Version 23. CMB is necessary when data are collected through a single source from the same population at the same time (Podsakoff & Organ, 1986). The results showed only 4 factors which have Eigenvalues greater than 1. The first factor only explained 16.87% variance which is less than 50%. This confirmed that there is no problem with CMB in this study.

# **Confirmatory Factor Analysis:**

This research attempted confirmatory factor analysis (CFA) to confirm the items factors loadings, convergent validity, discriminant validity, and composite reliability. However, to explore more useful results, we executed a separate model for reach variables.

# CFA for each Variable:

First, we executed CFA for safety climate and the model fits have been shown in Table 4. It shows that CMIN/DF value is 2.416 which are acceptable because it is less than 3 as suggested by the authors (Hu and Bentler, 1999; Hair et al., 2010; Tanaka, 1993). CFI, GFI, AGFI, NFI and TLI values are greater than 0.90 which are accepted values as recommended by Hair et al., (2010) that these values will be above 0.90 to present a good model fits. RMR 0.027 and RMSEA is

0.069 which are less than 0.08 that show an acceptable model fits as per the recommendation of the prior studies (Hu and Bentler, 1999; Hair et al., 2010; Tanaka, 1993).

Psychological Capital has CMIN/DF value 2.202 which shows an acceptable model fits as it is lower than 3 (Hu and Bentler, 1999;

Hair et al., 2010; Tanaka, 1993). The other model fits values CFI, GFI, AGFI, NFI, and TLI also present an accepted model because the values are higher than

0.90 which are considered acceptable as suggested by (Hu & Bentler, 1999; Hair et al., 2010;Tanaka, 1993). RMR and RMSEA values are below 0.08 which describe a good model fits as suggested by (Hu & Bentler, 1999; Hair et al., 2010; Tanaka, 1993).

Job performance also gave all the acceptable values. For instance, CMNIN/DF is lower than 3 as suggested by (Hair et al., 2010; Tanaka, 1993) that the value below 3 shows acceptable model fits. Similarly, CFI, GFI, AGFI, NFI, and TLI values are also above 0.90 which indicate acceptable model fits as suggested in the prior studies (Hu and Bentler, 1999; Hair et al., 2010; Tanaka, 1993). RMR and RMSEA values are less than 0.08 that means a good model fits as argued by the prior authors (Hu and Bentler, 1999; Hair et al., 2010; Tanaka, 1993).

Finally, we executed CFA for job satisfaction and it also confirmed a good model fits. CMININ/DF is less than 3 provided acceptable model fits as per the recommendation of the previous studies (Hu and Bentler, 1999; Hair et al., 2010; Tanaka, 1993).CFI, GFI, AGFI, NFI, and TLI are found in the acceptable range (above 0.90) which confirmed acceptable model fits as suggested by prior researchers (Hu and Bentler, 1999; Hair et al., 2010; Tanaka, 1993). RMR and RMSEA values are in the acceptable range because the values are lower than 0.08 as recommended by the prior studies (Hu and Bentler, 1999; Hair et al., 2010; Tanaka, 1993.

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Model	CMIN	DF	CMIN/DF	CFI	GFI	AGFI	NFI	TLI	RMR	RMSEA
SC	26.576	11	2.416	0.98	0.97	0.94	0.98	0.98	0.027	0.069
PsyCap	550.562	250	2.202	0.95	0.87	0.85	0.92	0.95	0.033	0.063
JP	12.480	6	2.080	0.99	0.98	0.95	0.98	0.98	0.030	0.060
JS	6.5860	3	2.195	0.90	0.91	0.92	0.93	0.92	0.034	0.056
Measurement Model	1235.24 7	728	1.697	0.95	0.84	0.82	0.88	0.94	0.045	0.048
Structural Model	251.981	98	2.571	0.95	0.91	0.87	0.91	0.93	0.0125	0.072

### Table 4. Model fits for all the variables.

PsyCap= Psychological Capital, SC= Safety climate, JP= Job performance, JS=Job satisfaction. Source: Own study

## **Regression Analysis:**

Under this study Hayes (2013) Process model to be used to examine the direct effect of safety climate and two DVs job performance and job satisfaction. Also, Model 1 was used to test the moderation and direct effect through Hayes process (2013). Through this process allows estimation of direct and indirect impact whole Investigation of moderation.

## Direct Impact to Test the hypothesis relationships between IV and DVs:

In this research Preacher and Hayes (2013) was applied. The results about the direct relationship were showed in the below table 5. Hypothesized 1 was safety climates is a positive and significant effect on job performance the result indicated table 5 safety climate has a significant positive relationship with job performance ( $\beta = 0.167$ , p < 0.05) which accepted H1 of this study. R square shows that safety climate brings 10.10% change in job performance. Hypothesized 2 was that safety climate is a positive and significant effect on job satisfaction result indicates table 5 that safety climate has a significant positive influence on job satisfaction ( $\beta = 0.16$ , p < 0.05) R square shows that safety climate brings 11.50% change in job satisfaction which accepted H2 of this research.

 Table 5. Direct Relationship safety climate between job performance and job satisfaction.

Hypotheses	Variables	В	SE	Р	LLCI ULCI	
H1	SC JP	0.167	0.06	.0011	0.105	0.2856
H2	SC JS	.16	0.05	.0001	0.0495	0.2706

SC= Safety Climate, JS= Job Satisfaction, JP= job performance, LL=Lower limit, UL= Upper limit,

CI= Confidence interval

Source: Own study

# Interactive effect of Psychological Capital and Safety Climate on Job Satisfaction.

Hayes model 1 to be used for Psychological Capital as a moderator the relationship between Safety climate and Job Satisfaction. Result for this moderation analysis psychological capital between safety climate and job satisfaction is given below table 6 that explained the interactive direct effect and conditional effect of independent and dependent variables with respective existence

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of psychological capital. The results showed safety climate has significant relationship with job satisfaction ( $\beta$  .16 p < .0001) psychological capital have also significant relationship with job satisfaction ( $\beta$ .2425 p < .0047). R square shows that safety climate brings 11.50% change in job satisfaction and R square change increases due to interaction is 2.14 %. The

interaction terms (SC X PSYCAP) were mean-centered prior to analysis with the context of job satisfaction.

While the conditional effect showed that in the presence of psychological capital between safety climates and job satisfaction get stronger as it's increased comparatively direct relationship from 0.0318to 0.2882 as the value of Psychological capital increased. Result revealed that interaction term Psychological Capital X SC was significant at ( $\beta$ =.1459, P <.0081). The job satisfaction was mean-centered prior to analysis. The conditional effect also showed at mean level effect 0.16 when Psychological capital 1SD below from mean there is an insignificant relationship between safety climate and job satisfaction the relationship weakened. While psychological capital 1SD increases from mean, the effect increasing.16 to .2882 so when psychological capital was high the relationship between Safety climate and Job satisfaction were stronger, Hence Hypothesis 3a is accepted.

Table 6. Psychological ca	apitals as a moderator	between SC and JS.
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SR No	Predictor	В	SE	Р
1	Constant	3.97**	.051	.0000
2	SC	.16**	.056	.0001
3	Psychological	.2425**	.062	.0047
	Capital			
ł	Interaction t	erm .1459**	.054	.0081
	PsyCap x SC			

Conditional effect X on Y

PsyCap	Effect	SE	Р	LLCI	ULCI	
8787	.0318	.0694	.6467	1048	.1685	
.000	.16**	.0562	.0047	.0495	.2706	
.8787	.2882**	.0782	.0008	.1343	.4422	

N=300, Bootstrap Sample size =1000, LL= Lower Limit, CI= Confidence Interval, UL= Upper Limit, PsyCap= Psychological Capital, SC= Safety climate, JS= Job Satisfaction

Source: Own study

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Slope test was done by using the process of Hayes's Model 1; the interaction terms (SC X PSYCAP) were mean-centered prior to analysis. The interaction is showed in Figure 3 graph illustrates the nature of the interactive conditional effect of the safety climate on job satisfaction at 1 SD below and above the mean of psychological capital. The result points out that figure 2 when Psychological Capital is low 1SD from mean the relationship between safety climate and job satisfaction was weaken while psychological capital high at 1SD from mean the relationship between safety climate and Job satisfaction was stronger.

## Discussion

The present study examined the role of safety climate in job performance and job satisfaction with the moderating role of psychological capital. This research is based on empirical evidence collected from employees working in the reputed organizations; OGDCL, Sitara Chemical, Fauji Cement and Mari Petroleum. In this research four major hypotheses were tested in this research. First, the influence of safety climate on job performance was checked. Then the influence of safety climate on job satisfaction was checked. The moderating role of psychological capital between safety climate and job satisfaction was examined and finally, the moderating role psychological capital between safety climate and job satisfaction was assessed. The study found good support for all the proposed hypotheses.

This studies investigated that safety climate is a significant positive influence on job performance which supported H1 of the study. In line with a prior study where Turunc, (2010) scrutinized that organization's competitive advantage depends on the employees' job performance and the job

performance can be achieved by providing high safety climate to the workers. Similarly, Chen, McCabeand Hyatt (2017) also argued that employees perform high in a workplace where they feel high safety climate. They also indicated that through safety climate, an organization can sustain the high performance of their workers through the creation of a comparable environment and safety climate. Additionally, Baba et al., (2009) also claimed that safety climate creates high performance among employees which is deemed a key factor to successful organizations. We confirmed in this study that safety climate positively influences job performance which is a key priority of every organization.

This study found that safety climate has a significant positive influence on job satisfaction which supported H2 of the study. Our findings are consistent with Zheng et al., (2017) who pointed out

that safety climate promotes job satisfaction among employees as they feel comfortable and easy in a workplace with high safety climate. Hashish (2017) further believed that safety climate does not only produce or generate high satisfaction among employees but also build organization commitment and reduce the turnover intentions which in turn configure organizations success. Similarly, Clarke, (2010) confirmed that safety climate is one of the significant factors that can enhance job satisfaction among workers. Similarly, a recent study conducted by Farinde, Wuand, and Fitchett (2018) also resulted that safety climate is essential in every organization who aims to enhance employees satisfaction. Our findings argue that safety climate significantly enhances employees' satisfaction among organizations.

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# Conclusions.

Organizations success depends on several factors, but some factors play a significant role in this regards. Since several decades. researchers and academia have shown interest in the study to explore the factors that can significantly contribute to organizations success and performance. However, employees have deemed the most influential predictors in this perspective. However, employees will not perform well until they are satisfied and feel safe in the workplace. This research aims to examine the role of safety climate in job performance and job satisfaction with a moderating role of psychological capital. Data were collected through a structured questionnaire from 300 employees working in OGDCL, Sitara Chemical, Fauji Cement and Mari Petroleum. Hypotheses were tested through

SPSS. The results indicated that safety climate significantly contributes to job performance and job satisfaction. Moreover, psvchological capital significantly moderates the relationship between safety climate and job performance. Psychological capital also significantly moderates the relationship between safety climate and job satisfaction. This research recommends top management and responsible authorities to promote safety climate activities among their organizations in order to enhance their employees satisfy and high performed. Moreover, this research strongly recommends psychological capital among organizations that are looking for a highly satisfied and effective employees.

# **References:**

- 1. Avey J., Luthans F., Pigeon N., (2010). *Two field studies examining the association between positive psychological capital and employees performance*. Leadership and Organizational Development Journal, 31(5), 384-301
- Avey J., Wernsing T., Mhatre K. (2011). A longitudinal analysis of positive psychological constructs and emotions on stress, anxiety, and well-being. Journal of Leadership & Organizational Studies, 18(2), 216–228. doi:10.1177/1548051810397368.
- Aziz A.A., Baruji M.E., Abdullah M.S., Him N.F.N., Yusof N.M., (2015). An initial study on accident rate in the workplace through occupational safety and health management in sewerage services. International Journal of Business and Social Science, 6(2), 29-255.
- 4. Bergman M.E., Payne S.C., Taylor A.B., Beus J.M., (2014). "The Shelf Life of a Safety Climate Assessment: How Long Until the Relationship with Safety–Critical Incidents Expires?" Journal of Business Psychology, 29, p.519-540.
- Bergman M.E., Payne S.C., Taylor A.B., Beus J.M., (2016). "The Shelf Life of a Safety Climate assessment: How Long until the Relationship with Safety–Critical Incidents Expires?" Journal of Business Psychology, 29, p. 519-540.
- Blewett V., Rainbird S., Dorrian J., Paterson, J., Cattani M., (2012). *Keeping rail on track: Preliminary findings on safety culture in Australian rail.* Work, 41, 4230-4236. doi:10.3233/WOR-2012-0124-4230.
- Chen Q., Jin R., (2012). Safety4Site commitment to enhance jobsite safety management and performance. Journal of Construction Engineering & Management, 138, 509-519. doi:10.1061/(ASCE)CO.1943-7862.0000453.
- Chen Y., McCabe B., Perlman D., (2017). Impact of individual resilience and safety climate on safety performance and psychological stress of construction workers: A case study of the Ontario construction industry. Journal of safety Research, 61, 167-176. ISSN 2450-2146 / E-ISSN 2451-1064

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> International Journal of New Economics and Social Sciences, 1 (9) 2019: 363-379 DOI 10.5604/01.3001.0013.3056

- 9. Clarke S., (2013). Safety leadership: A meta-analytic review of transformational and transactional leadership styles as antecedents of safety behaviors. Journal of Occupational and Organizational Psychology, 86, 22-49. doi:10.1111/j.20448325.2012.02064.
- 10. Clarke S., (2017). *The relationship between safety climate and safety performance: A metaanalytic review.* Journal of Occupational Health Psychology, 11, 315–327.
- Crossman D.C., (2008). The impact of safety culture on worker motivation and the economic bottom line (Doctoral dissertation). Available from Request Dissertations and Theses database. (UMI No. 3320823).
- 12. Fitchett P.G., (2018). Searching for satisfaction: Black female teachers' workplace climate and job satisfaction. Urban Education, 53(1), 86-112.
- 13. Flin R., Mearns K., O'Conner P., Bryden R., (2000). *Measuring Safety Climate: Identi-fying the Common Features*. Journal of Safety Science, 34, 177192.
- 14. Giles A.C., (2011). Railway accidents and nineteenth century legislation: Misconduct, want of caution or causes beyond their control? Labour History Review, 76, 121-142. doi:10.1179/174581811X13063237706916.
- Gilkey D.P., del Puerto C., Keefe T., Bigelow P., Herron R., Rosecrans J., Chen P., (2012). Comparative analysis of safety culture perceptions among home safe managers and workers in residential construction. Journal of Construction., 3 (36), 34-37.
- Haluk C., Shamsudin F.M., Zin M.L.M., Ramalu S.S., Hassan Z., (2016). Safety management practices and safety compliance in small medium enterprises. Asia-Pacific Journal of Business Administration, 8(3), 226-244.
- 17. Hashish A.E.A., (2017). Relationship between ethical work climate and nurses' perception of organizational support, commitment, job satisfaction and turnover intent. Nursing ethics, 24(2), 151-166.
- 18. Hofmann D.A., Burke M.J., Zohar D., (2017). 100 years of occupational safety research: From basic protections and work analysis to a multilevel view of workplace safety and risk. Journal of Applied Psychology, 102(3), 375-388.
- Hu X., Griffin M.A., Bertuleit M., (2016). Modeling antecedents of safety compliance: Incorporating theory from the technological acceptance model. Journal of Safety Science, 87, pp.292-8. https://doi.org/10.1016/j.ssci.2016.12.018
- Huang Y.H., Chen P.Y., Grosch J.W., (2010). Safety climate: New developments in conceptualization, theory, and research. Accident Analysis and Prevention, 42, 1421–1422.
- Huang Y.H., Shaw W.S., Chen P.Y., (2004). Worker perceptions of organizational support and return-to-work policy: associations with post-injury job satisfaction. Work J. Prev. Assess. Rehabil. 23, 225e232. Journal of Safety Science, Vol. 46 No. 3, pp. 376-387.
- 22. Kappagoda S., Othman H., De Alwis G., (2014a). *The Impact of Psychological Capital* on Job Performance: Development of a Conceptual Framework, European Journal of Business and Management, 6(14), 14315.
- 23. Kappagoda S., Othman H., De Alwis G., (2014b), *Psychological capital and job performance: The mediating role of work attitudes*. Journal of Human Resource and Sustainability Studies, 2, 102-116.
- 24. Kyoung KO. Park., (2017). Japan Society for Occupational Health is an Open Access article distributed under the Creative Commons Attribution- Journal of Occupational Health. 2017 June 20; 60(1): 94–101.
- 25. Lewis S., (2011), Positive Psychology at Work, West Sussex: John Wiley & Sons Ltd.

#### ISSN 2450-2146 / E-ISSN 2451-1064

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- Lin Y.H., (2012). Modeling the important organizational factors of safety management system performance. Journal of Modeling in Management, 7, 166179.doi:10.1108/17465661211242796.
- Luthans F., Avolio B.J., Avey J.B., Norman S.M., (2007). Positive psychological capital: Measurement and relationship with performance and satisfaction. Personnel Psychology, 60(3), 541–572. doi:10.1111/peps.2007.60. issue-3
- 28. Luthans F., (2002a). *Positive organizational behavior: Developing and managing psychological strengths*. Academy of Management Executive, 16(1), 57-75.
- 29. Luthans F., Youssef C.M., Avolio B.J., (2007). *Psychological Capital*, Oxford University Press, Oxford.
- Lunenburg F., (2011). Motivating by enriching jobs to make them more interesting and challenging. International Journal of Management, Business and Administration, 15, 123-132
- 31. Milley W., Gonsalves S., (2003). *What you don't know can hurt you students' perceptions of professors' annoying teaching habits*. College Students Journal, 37(3), 447-455.
- 32. Miraglia M., Alessandri G., Borgogni L., (2015). "Trajectory classes of job performance", Career Development International, 20(4), p. 424-442.
- 33. Morris G., Venkatesh V., (2010). Job characteristics and job satisfaction Understanding the role of enterprise resource planning system implementation. MIS quarterly, 34, 143-161. Retrieved from http://www.misq.org.
- Wang M., Sun J., Du H., Wang C., (2018). "Relations between Safety Climate, Awareness, and Behavior in the Chinese Construction Industry: A Hierarchical Linear Investigation," Journal of Advances in Civil Engineering, vol. 2018, Article ID 6580375.
- 35. Muhammad M., (2015). *The Influence of Competence, Motivation, and Organizational Culture to High School Teacher Job Satisfaction and Performance*, International Education Studies, 8(1), 38-45.
- 36. Nelson D., Cooper C., (2007). *Positive Organizational Behavior: Accentuating the Positive at Work*, Thousand Oaks, CA: Sage.
- 37. Roche M., (2017). Guidelines for the Assurance of Safety, Security. Health and Environmental Protection. safety behaviour: assessing the mediating role of safety knowledge and motivation. Accid Anal Prev. 2010; 42(6):2082–93.
- Wang D., Wang X., Xia N., (2018). How safety-related stress affects workers' safety behavior: The mediating role of psychological capital. Journal of Safety science, 103, 247-259.
- Wang K.W., (2018). Negative impact induced by foreign workers: Evidence in Hong Kong construction sector. Habitat. International journal of occupational safety, 36, 433– 443.
- 40. Yosefi Y., Jahangiri M., Choobineh A., Tabatabaei S.H., Keshavarzi S., Shams A., Mohammadi Y., (2016). Validity Assessment of the Persian Version of the Nordic Safety Climate Questionnaire (NOSACQ-50): A Case Study in a Steel Company. Safety and Health at Work. https://doi.org/10.1016/j. shaw.2016.03.003.
- 41. Zohar D., (2016). "Safety climate and beyond: a multi-level multi-climate framework",
- 42. Zohar D., (2017). "Thirty years of safety climate research: reflections and future directions", Accident Analysis & Prevention, Vol. 42 No. 5, pp. 1517-1522.
- 43. Zohar D., (1980). "Safety climate in industrial organizations: theoretical and applied implications", Journal of Applied Psychology, Vol. 65 No. 1, pp. 96-102.

#### ISSN 2450-2146 / E-ISSN 2451-1064

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