The Impact of Interpersonal Value Facets on Safety Culture: The Mediating Role of Safety Caring

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Abstract
In today's organizational landscape, cultivating a robust safety culture is essential, particularly in high-risk sectors such as construction and utilities. The present research explores how several interpersonal value facets, including harmony value, respect and trust, caring and understanding, and safety caring overlap with one another and shaped the MEPCO's safety culture. Drawing on social exchange theory, this study demonstrates how promoting specific positive organisational practices can encourage reception of these positive safe behaviours and thus, promote a positive safety climate. The research adopts cross-sectional research design where data is gained through questionnaires from the MEPCO employees, and then the data is analyzed by applying Partial Least Squares Structural Equation Modeling (PLS-SEM). Consistent with the hypothesized effects, the analysis establishes the harmony value, respect and trust and caring and understanding factors of safety caring as being closely related. The safety caring component's powerful influence over safety culture demonstrates the significance of emotionally sensitive and friendly work climates. This paper also brings contributions to the safety culture literature addressing relational aspects and offers practical recommendations for sectors characterized by high hazards and severe consequences to them.
Keywords: Safety Culture, Safety Caring, Harmony Value, Respect and Trust, Caring and Understanding

1. Introduction

It has become imperative in today's organizations that a strong safety culture is a necessity to safeguard the lives of the employees and the organization as a whole especially concerning risky organizations (Anderson, 2024). This study has described a model to emphasize on the idea of developing safety culture with the help of integrating core values and practices. Key components of this model include harmony value, respect and trust between employees, managerial and subordinates' caring and understanding for each other, as well as safety caring which as a whole fosters the formation of a safety culture.

Harmony value deals with work culture propounded by cooperation and work environment that does not hold conflicts inherent within or outside the organization and its workers (Shobana & Siddiq, 2024). Reciprocity of respect and, especially, trust lays the foundation for good interpersonal relationships, free and open communication, and everyone's sense of belonging. Positive mode fosters caring and understanding because such conditions promote empathy in individuals which in turn is translated to creating empathy within employees. Safety caring is the concept whereby the organization goes an extra mile in establishing that it is safety conscious (Wiegmann et al., 2007).

Although there are extensive studies about the safety culture in different fields, still there are challenges in explaining how particular values of safety culture namely harmony, respect, and trust and secondly, caring and understanding, support safety caring and lead to the formation of strong safety culture. Researchers have barely scratched the surface by to some extent applying standard procedures which may include generalized organizational safety practices and safety management systems without making more of an effort in appreciating safety cultures and particular safety relations especially in the electrical power distribution sector which can be deemed rather high risk (Otitolaiye et al., 2021; Ajmal et al., 2022). The above gaps bring to light the need to examine these aspects within the context of the organization's safety culture in detail.

Therefore, the objectives of this study will be to determine the overall safety culture with reference to the Multan Electric Power Company Ltd (MEPCO) taking in to consideration the following; Harmony value, respect and trust, caring and understanding, safety caring. As a result of identifying these various interrelated elements, there are the objectives of the study that aims at offering a comprehensive insight into the ways in which these values and practices affect safety in a high-risk sector.

This study has important implication in the following ways for both the academia and the practitioners. Firstly, it fills the existing research gap in the area of safety culture by presenting the cultural and relational dimensions of safety culture which are normally missing in the majority of the literature in the area of safety management. Secondly, the results of this study can be useful for high-risk industries as a source of information regarding the addition of the key values and practices model to improve safety results. Last, by providing an illustrative focus on MEPCO that is one of Pakistan's largest players in the electrical power distribution sector the study offers specific advice for making the safety culture of similar high-risk organizations around the world better. The findings could be used to guide the development of policies and practices or in implementing instructional training programmes and enacted organizational development interventions that prevent workplace accidents and promote the physical and psychological health of the workforce and organizational success.

2. Literature

2.1. Safety Caring

According to Roberts and Geller (1995), safety caring highlights the significance of a sympathetic and caring approach to safety management. It entails being aware of and responsive to workers' safety requirements and worries while cultivating a welcoming and trustworthy work environment.

2.2. Harmony Value

Safety care is keen on creating a positive workplace environment whereby human beings' well-being is of paramount significance, as proposed by Halliday et al. (2024). The development of a feeling of cooperation and respect between people, which is in the

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range of the harmony value, will increase the efficiency of the cooperation between people and make the workers' pay more attention to the safety regulations. It is particularly important that employees observe safety measures at the workplace, and this will depend on appreciation by the management (Alateeg & Alhammadi, 2024).

It is noteworthy that the development of health promoting organizational culture and workplace environment plays a significant role in improving safety (Ibrahim et al. , 2018). Employee cooperation will be enhanced in the sense that employees will help each other embrace safe working practices since they all feel appreciated at the workplace. It might refer to such steps as valve maintenance of the communication channels, interpersonal trust activities, or reward systems. It is crucial to state that leaders can ensure that every employee, depending on the organization's structure, prioritizes safety by fostering positive attitudes and environments).

There is still a need to foster a civil climate at workplace and the idea of valuing people as well as supporting cooperation can be achieve through engaging the employees in team building and focusing on cordial relations among them (Hastings et al. , 2018). These strengthen social relations and trust amongst staff members, which may enhance working relations/ cohesiveness and conformity to safety measures (Asad et al. , 2023). For example, the exercising that promotes staff teamwork and general assertiveness may help the staff in acquiring skills for good teamwork and maintaining healthy working relationships.

Another approach to enhancing clinic obedience and tolerance of each other at work is the recognition programs (Adim & David, 2020). Managers can employ strategies, which are aimed at increasing the importance of performing safety-related activities in the context of organizational safety goals of both the leaders and subordinates. This can be in form of monetary reward, promotion, trophies among other things, this acknowledgement is essential to the recipients. The findings show that when employees think that their contribution towards improving safety on the workplace is valued, they are more likely to continue with measures that would enhance safety (Wowor & Dewi, 2022).

Another component of the positive work environment is the effective communication system that has to be unobstructed (Bucăţa & Rizescu, 2017). When an organization's staff members can openly express the dangers they deem possible and ideas on how the risk solutions process can be made safer, it is much easier to identify those possibilities and come up with safer solutions. Such a communication can be facilitated by the use of anonymous reporting, suggestion boxes, as well as daily toolbox talks concerning safety issues. Managers can assure their subordinates that they keep focusing on safety by ensuring that the respondents continue cherishing their experiences in the organization (Radu, 2023).

2.3. Respect and Trust

Establishing trust and respect is essential to safety-focused care (Wiig et al., 2024). In order to foster trust, leaders must genuinely care about the security and welfare of their workforce. This can be accomplished by paying attention to the worries of the workforce, acting quickly to resolve safety-related issues, and being open and honest about decisions pertaining to safety. The loyalty is established as governing foundation of risks as dangers since employee readiness to report risks and near-miss situations exists under trust (Bilginoğlu et al. , 2019).

Lansing et al. , (2023) supported that a person and interpersonal respect and reliance on each other are critical components to develop the remarkable safety culture. Lack of effective measures has been pointed out to be translated to one side lack of the willingness of the workers to perform safely, whereas on the other side if managers appear to care for health and safety of the employees, trust is created. For proper safety management this is a big deal as it provides the environment or the platform on which people are willing to report hazards without compensation (Conchie & Donald, 2008).

Actively listening to employee problems is one method to foster a culture of respect and trust (Kluger & Itzchakov, 2022). Employees are more inclined to act in ways that make the workplace safer when they feel respected and heard (Kriz et al., 2021). Anonymous reporting methods, one-on-one conversations, and routine safety briefings can all help to promote active listening. Leaders may guarantee that all safety concerns are addressed swiftly and appropriately by giving workers several channels to express their concerns (Kluger & Itzchakov, 2022).

Another strategy to foster respect and trust is to swiftly address safety concerns (Conchie & Donald, 2008). Leaders who respond quickly to safety issues show that they are dedicated to establishing a secure workplace (Kriz et al., 2021). By reducing possible risks before they cause mishaps or injuries, this proactive strategy promotes worker trust and emphasizes the value of safety. Furthermore, leaders that are open and honest about decisions pertaining to safety enhance credibility and trust (Hadziahmetovic & Salihovic, 2022). When managers provide an explanation of the rationale behind safety protocols, staff members are better able to comprehend its significance and are more likely to comply. By being transparent, it also ensures that there are no misunderstandings or misunderstandings regarding safety procedures.

2.4. Caring and Understanding

According to Ahmed et al. (2024), leaders who are caring and understanding show empathy and concern for the safety and well-being of their staff members. This entails recognizing the mental and physical strain of their work and offering assistance when required. Employee engagement and morale can be raised by compassionate and understanding leaders, which will result in a workforce that is more dedicated and safety-conscious (Khan et al., 2018).

Kim and Gausdal (2017) also stated that safety leadership also entails use of care. Some of the trends identified by Islamic and Kabod trial (2023) on compassion and empathy include new leadership that should promote employee health-supporting promotion that affirms where people feel appreciated. This fosters engagement and commitment of the employees, and formulation of new and better safety culture among the workers.

Understanding that an employment job implies physical and emotional pressure constitutes a concrete way of embracing the concept of care (Baquero, 2023). Similarly, leaders must also embrace the fact that their subordinates have difficult tasks to perform in order to be able to fulfill the duties assigned to them and should also be provided necessary tools that they require in order to handle with these expectations (Kalu et al. , 2019). The support may be in various forms as several of them include the following; The provision of materials which helps in the mental wellbeing of the employees; granting of permission to work under

schedules that may flex; ensuring that the workers are provided with adequate equipment and tools in the performance of their work that will not lead to loss of their lives.

Lovelace et al. (2007) also said that the same as being empathetic and compassionate, one also has to engage in offering a helping hand once in a while. Observing hazardous situations and reporting it to the organization's authority's guarantee that employees perform their work safely the reception will be done if employees have the impression that their superiors are supporting them. This support may call for the organisation to offer the young person more training, helping the youngster out with complex tasks, as well as ensuring that the young employee knows how and where to go to seek assistance in workplace. It therefore recommended that leaders seek to make safety and trust as something that is deeply embedded in the culture of the organisation through demonstrating that the leaders are concerned about safety of the staff.

Leaders should communicate with employees not only with assistance but also with empathy and compassion (Azila-Gbettor et al., 2024). This entails paying attention to the worries raised by staff members, expressing empathy and compassion for them, and acknowledging their emotions. Workers are more likely to feel appreciated and respected when they perceive their leaders to be truly concerned about their well-being. This can boost employee engagement and dedication to safety (Ly, 2024).

2.5. Safety Caring and Safety Culture

Safety culture and safety caring are closely related to one another. By fostering an atmosphere where workers feel appreciated and encouraged, safety caring helps to establish and maintain a good safety culture (Manni et al., 2023). A culture of mutual respect and trust is fostered when leaders show that they genuinely care about the safety and well-being of their staff (Farmanesh & Zargar, 2023). The organization can detect and reduce risks more successfully when there is open communication and collaboration on safety-related issues, which is made possible by this trust.

Cooper (2018) notes that safety culture's emphasis on continual development is further supported by safety caring. Leaders may enhance safety performance by identifying areas for improvement and implementing changes that improve safety performance by actively listening to employees' safety concerns and ideas (Jääskeläinen et al., 2022). By ensuring that safety procedures develop and get better over time, this continuous feedback loop helps to create a vibrant and strong safety culture. Additionally, safety-mindedness fosters a sense of accountability and ownership among staff members. Workers are more inclined to take responsibility for their own safety behaviors as well as those of their peers when they perceive their leaders to be sincere about promoting their well-being (Ghorbani et al., 2024). When everyone is actively involved in preserving a safe work environment, it is evident that there is a strong safety culture.

To sum up, there is a strong correlation between safety culture and safety care, since both contribute to and strengthen the other. Leaders may foster an atmosphere where workers feel appreciated, encouraged, and dedicated to safety by emphasizing safety and caring (Vitrano & Micheli, 2024). As a result, a robust safety culture that values open communication, trust, ongoing development, and shared accountability for safety is fostered (Patankar et al., 2005).

3. Theoretical Framework

The theoretical foundation for this study is the Social Exchange Theory (SET), which suggests that interaction agrees upon the purpose and proposing actions to ensure one receives more rewards than costs accrued (Ahmad et al., 2023). It highlights reciprocal dynamics of employment relations at the workplace between employers and employees. When employers show concern and act civilly in their interactions with employees the later will do the same by following safety precautions and actively participating in safety measures (Jonathan & Mbogo, 2016).

In particular, when referring to MEPCO, the notion that underlies the term 'harmony value' is powerfully significant as it focuses on the essence of unity in relations and mutual understanding in the work environment (Çalış & Büyükakıncı, 2019). Since culture entails valuing such aspects, when the employees have the perception that their organization has such a culture, they will be more willing to contribute to safety by practicing cooperation (Kayode & Luz, 2024). This mutual relationship is harmonious and coincides with SET. The organization focuses on reducing risky situations, and thus, employees support that with safety caring.

Respect and trust are part of SET since it establishes healthy working relationships within the business organization (Cropanzano et al., 2017). The employees can have trust on them because the leaders of MEPCO show they care for employees becoming fatalities by giving them appropriate protective wears. A workforce that receives courtesy from superiors with levels of trust would be more willing feel comfortable report on any issues that they deem unsafe and encourage to practice safer behaviors (Flores et al., 2023). This dynamic accurately sums up the fundamental concept of SET: positive treatment by the organisation result in positive behaviour from the employees (Akhter, 2023).

Care and understanding in an organization mean the level of concern that superiors show to their workers (Suherdin & Sapratista, 2023). SET suggests that received positive leadership not only influences employees' subsequent positive perception of safety climate but also makes them respond with likewise positive safety experiences (Wu & Lee, 2017). This mutual exchange is necessary for creating duties and understanding that conflict and insecurity dangerous for workmates.

The concept of safety caring means that leaders who support employees, perform necessary actions related to safety as well as focus on this aspect in their organization (Molnar et al., 2019). This corresponds to SET because it presents a proper example of how organizational support drives positive actions from the staff. Pro-safety procedures like safety training and advocating safety practices enhances a construction organization's safety outlook, thus developing a sound safety climate (Choudhry et al., 2007).

Thus, a sustained and healthy safety culture evolves from these positive social interactions within the organization. Harmony value is proving that the employees are appreciated and depended on through trusting them and caring about them; thus, the employees gain the willingness to provide safe workplace behaviors (Jiang et al., 2024). Incident reporting and analysis therefore act as a trigger to safety caring as it makes solid continuous improvement of the organisation's safety and improve the safety culture (Varallo et al., 2018). Altogether, these factors contribute to the formation of organizational conditions, in which safety is valued and employees are eager to promote safely.
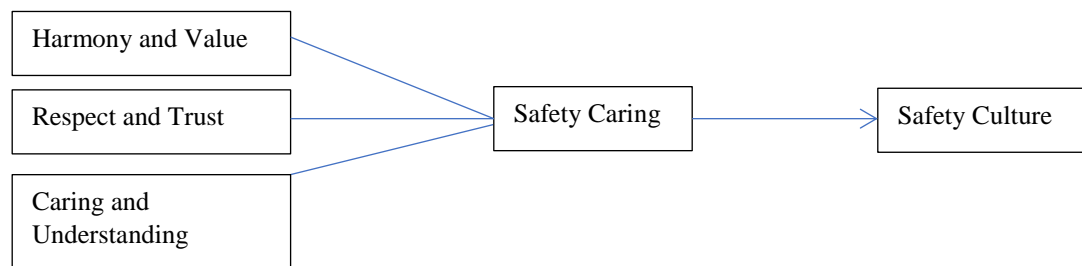
Figure 1: Theoretical Model

Based on this theoretical framework, the following hypotheses are:

H_1: Harmony value is significantly positively related to safety caring.

H_2: Respect and trust is significantly positively related to safety caring.

H_3: Caring and understanding is significantly positively related to safety caring.

H_4: Safety caring is significantly positively related to safety culture.

4. Research Methods

4.1. Research Design

To achieve the above objectives, this cross-sectional study aims at determining the following safety caring factors: harmony value, respect and trust, caring and understanding, and safety culture. One major limitation of cross-sectional research design is that it oriented on the data collection in a specific time only and as a result it can be used to obtain only the cross-sectional data regarding the state of these variables and their interrelations in the organization (Levin, 2006).

4.2. Research Philosophy

The paper's research method is fundamentally deductive, and the use of theoretical framework includes Social Exchange Theory (SET) to formulate hypotheses. It is appropriate in arriving at a conclusion about existing theories in the new environment or confirms the existence of the relationship between two or more variables (Woiceshyn & Daellenbach, 2018).

4.3. Data Collection

Data were administered through self-completed questionnaires administered to employees of Multan Electric Power Company Ltd (MEPCO). To assess the above constructs, the following variables were determined by the questionnaire; Harmony value, respect & trust, Caring & understand, Safety Caring, and Safety culture. According to norms of predicting the number of questionnaires to be filled the sample size was predetermined and out of 424 filled questionnaires only 424 were responded and found usable.

4.4. Measures

In this study, Safety Caring is assessed by items from Wu et al, (2008), which has items on safety leadership, via safety coaching. This measurement approach focuses on the leader's communication and action in ensuring safe behaviour and cultivating a safety culture in the organisation.

Safety culture is evaluated with the help of Safety Culture Scale (SCS) which consists of the questions about the employees' involvement in safety issues, perceived risk, and emergency response (Wu et al., 2010). The SCS gives an overall assessment of the organisation's safety climate by analysing employee interaction with/attitude toward practices and threats in emergencies.

4.5. Data Analysis

The research data were analyzed with Partial Least Squares Structural Equation Modeling (PLS-SEM), which equally is effective in tackling relationships and small samples. This method enables the assessment of both direct and indirect relationships between the study variables and mediation effects offer a wider perspective to the interactions between these variables (Sarstedt et al., 2021).

All the time when conducting the research, ethical issues were looked at closely. Participants were told that their information would remain anonymous, explaining the use of numbers, their consent for participation was sought, and data extracted were for analysis in this research only. Some approaches used in minimising the typical method biases included guaranteeing anonymity and polarity reversals of the items.

5. Findings

5.1. Internal Consistency/Reliability

Composite reliability and Cronbach's alpha terms that form the framework of internal consistency do appear. Apart from these two variables, rho-A was also included in the list of dependability measures that were considered in this study.

5.2. Reliability Analysis

Its reliability of the Safety Caring and Safety Culture construct can be endorsed based on the high Cronbach's alpha of 0.953 and 0.912, respectively. The values signify good level of coherency, suggesting that the items within a construct share high degree of inter correlation and thereby provide a reliable measure for the said construct. Such high reliability provides reliability to the constructs used in the study.

5.3. Composite Reliability

The result for Safety Caring is 0.95, while the Safety Culture result is 0.93, which shows that both constructs have excellent internal reliability and surpass the standard value of 0. 70. Such high composite reliability values imply a high reliability value of the measures that are adopted for measuring the constructs such that the indicators are accurate in representing the constructs. This has a role of strengthening the measurement model used in this study hence enhancing its reliability.

Table 1: Reliability

Construct	Cronbach's alpha
Safety Caring	0.953
Safety Culture	0.912

Table 2: Construct Composite Reliability

Construct	Composite reliability (rho_c)
Safety Caring	0.95
Safety Culture	0.93

5.4. Rho-A

The rho_A values of 0.955 for the Safety Caring and 0.919 for the Safety Culture reassured the validity of the composite reliability, thus supporting the internal consistency of the constructs. These values also support that it is ensure the indicators accurately reflect its corresponding constructs in the study.

Table 3: Rho-A

Construct	Composite reliability (rho_a)
Safety Caring	0.955
Safety Culture	0.919

Source: Author's own calculation

Table 4: Outer Loadings

Indicator	Safety Caring	Safety Culture
CU1	0.827	
CU2	0.816	
CU3	0.855	
CU4	0.819	
CU5	0.845	
HV1	0.823	
HV2	0.765	
HV4	0.730	
HV5	0.846	
RT1	0.785	
RT3	0.747	
RT4	0.815	
RT5	0.733	
SC1		0.861
SC11		0.820
SC12		0.833
SC2		0.710
SC4		0.647
SC5		0.747
SC6		0.592
SC7		0.789
SC9		0.888

5.5. Convergent Validity

Existing literature argues that when one indicator has a positive association with other indicators within the same theoretical context, it is referred to as having convergent validity (Chin, 2010). It is approximated using AVE and outside loadings: Provided the model is reflective, in case of assessment. Outer loading measures the part that an item independently plays in its particular construct. Hair et al. (2014) noted that low outer loadings are considered to be bad, while values of composite reliability of. 708 or more are regarded to be good.

5.6. Outer Loadings

From the results of the outer loadings, it is evident that all the indicators are closely aligned with the respective construct, and the Safety Caring indicators were found to load as high as 0. 730-0. 855 while for the Safety Culture, the indicators recorded a score

of 0.592 - 0.888. These higher loadings tell that all the indicators are in correct place with their confirmed constructs and it far serves the convergent validity that also supports the measurement model reliability.

5.7. Significance of outer loadings

The value of outer loadings for the indicators of Safety Caring and Safety Culture further support the element of convergent validity whereby all these indicators registered high values that range from 0.592 to 0.889. At the outer loading, all of them are significant where the p values equal to 0.000 and the t values ranging between 15.462 and 42.737; and greater than the usually applied critical value for significance. The above findings support the notion that all the employed indicators are valid and reliable measures for their respective constructs; they also provide evidence that the indicators of Safety Caring and the elements of Safety Culture included in the model are both pertinent and valuable in capturing the corresponding constructs.

Table 5: Significance of Outer Loadings

Indicator & Construct	Outer loadings	S.D	t	p
CU1 <- Safety Caring	0.827	0.031	26.818	0.000
CU2 <- Safety Caring	0.816	0.028	29.122	0.000
CU3 <- Safety Caring	0.855	0.028	30.261	0.000
CU4 <- Safety Caring	0.819	0.029	28.047	0.000
CU5 <- Safety Caring	0.845	0.028	29.694	0.000
HM1 <- Safety Caring	0.823	0.029	27.965	0.000
HM2 <- Safety Caring	0.765	0.027	28.254	0.000
HM3 <- Safety Caring	0.730	0.029	25.496	0.000
HM4 <- Safety Caring	0.846	0.026	32.624	0.000
HM5 <- Safety Caring	0.889	0.021	42.737	0.000
RT1 <- Safety Caring	0.785	0.021	37.937	0.000
RT3 <- Safety Caring	0.747	0.030	25.055	0.000
RT4 <- Safety Caring	0.815	0.028	28.859	0.000
RT5 <- Safety Caring	0.733	0.028	26.363	0.000
SC1 <- Safety Culture	0.861	0.029	29.626	0.000
SC11 <- Safety Culture	0.820	0.035	23.442	0.000
SC12 <- Safety Culture	0.833	0.028	29.489	0.000
SC2 <- Safety Culture	0.710	0.025	28.492	0.000
SC4 <- Safety Culture	0.647	0.031	20.697	0.000
SC5 <- Safety Culture	0.747	0.021	35.551	0.000
SC6 <- Safety Culture	0.592	0.038	15.462	0.000
SC7 <- Safety Culture	0.789	0.036	21.859	0.000
SC9 <- Safety Culture	0.888	0.025	35.135	0.000

Table 6: Average Variance Extracted

Construct	Average variance extracted (AVE)
Safety Caring	0.643
Safety Culture	0.594

5.8. AVE (Average Variance Extracted)

Average Variance Extracted (AVE) values also proved valid for Safety Caring (AVE=0. 643) and Safety Culture (AVE= 0. 594) whereby the AVE values reflect a good convergent validity. As the AVE values are above 0. 50 this indicates the following: 64. 3% of the variance in the Safety Caring indicators are caused by the Safety Caring construct while 59. 4% of the variance in the Safety Culture the indicators are due to the Safety Culture construct. This means that the items are

adequately represented by the constructs they stand for; hence, a validation that Safety Caring and Safety Culture are accurately measured within the mode.

5.9. Discriminant Validity

Discriminant validity is yet another criterion of measurement model assessment, based on differences between a given construct and the constructs in a study model (Lucas, Diener, & Suh, 1996). To assess discriminant validity, there are specific tests such as cross loadings, Heterotrait-Monotrait Ratio or HTMT, and Fornell & Larcker (1981) criteria in the SmartPLS 4 for identification..

5.10. Cross Loadings

The cross loadings demonstrated that each indicator is more relevant to the intended construct rather than the other construct which makes it valid in terms of discriminant validity. For instance, CU1, CU2, CU3, CU4, and CU5 bear more safety caring with the values of 0.816, 0.855, 0.827, 0.832, and 0.837 respectively in contrast to the values of safety culture of 0.286, 0.340, 0.320, 0.310, 0.315 respectively. Likewise, based on the factor loadings, 14 of the 15 indicators including SC1, SC11, SC12, SC2, SC4, SC5, SC6, SC7 and SC9 have higher mean factor loading values for Safety Culture (mean = 0.592 to 0.888) than for Safety Caring (mean = 0.223 to 0.378). These analyses of the pattern provide evidence that the indicators are more closely related to the corresponding constructs, thus supporting conclusions of discriminant validity between Safety Caring and Safety Culture.

Table 7: Cross Loadings

Indicator	Safety Caring	Safety Culture
CU1	0.827	0.318
CU2	0.816	0.323
CU3	0.855	0.287
CU4	0.819	0.286
CU5	0.845	0.340
HV1	0.823	0.309
HV2	0.765	0.336
HV4	0.730	0.306
HV5	0.846	0.319
RT1	0.785	0.316
RT3	0.747	0.304
RT4	0.815	0.281
RT5	0.733	0.295
SC1	0.304	0.861
SC11	0.314	0.820
SC12	0.318	0.833
SC2	0.290	0.710
SC4	0.223	0.647
SC5	0.288	0.747
SC6	0.253	0.592
SC7	0.286	0.789
SC9	0.378	0.888

Table 8: Fornell-Larcker Criterion

Construct	Safety Caring	Safety Culture
Safety Caring	*0.80*	
Safety Culture	0.39	*0.77*

Note: Values of square root at diagonal have been rounded off up to two decimal places

5.11. Fornell-Larcker Criterion

Applying the Fornell-Larcker criterion, it is ascertained that discriminant validity between Safety Caring and Safety Culture is fairly sound as the square roots of AVEs (0.80 and 0.77 respectively) exceed the particular correlation coefficient (0.39). From this it can be inferred that they are different constructs and while Safety Caring involves promoting safe behaviours among all personnel through caring, Safety Culture includes the idea of staff holding each other accountable for safe practice and values. A low correlation also supports their differentiation, to facilitate appropriate intervention within organizations with a view to improving safety behaviours and, in general, safety organisational climate.

5.12. Heterotrait-Monotrait Ratio (HTMT)

In the study, while comparing the HTMT value of Safety Caring and Safety Culture was found 0.41. According to the cut-off values suggested the HTMT value below 0.85 confirms that discriminant validity is okay since the two constructs are quite distinct from each other. The discriminant validity was found to be satisfactory, proven by the less recognition between Safety Caring and Safety Culture, which has an HTMT value of 0. 41. This low value makes sense in that while it may be possible that Safety Caring has some overlap with Safety Culture or is merely a component of Safety Culture, the two concepts are not sufficient similar that they are interchangeable and cannot be distinguished from one another. This lends support to the notion that Safety Caring and Safety Culture are indeed more of two distinct measures that aim at illustrating two different yet distinct factors that can regard to safety climate within an organizational setting.

Table 9: HTMT

Construct	Safety Caring
Safety Caring	
Safety Culture	0.41

5.13. Hypotheses Testing

Table 10: Hypotheses Testing - Direct Hypotheses

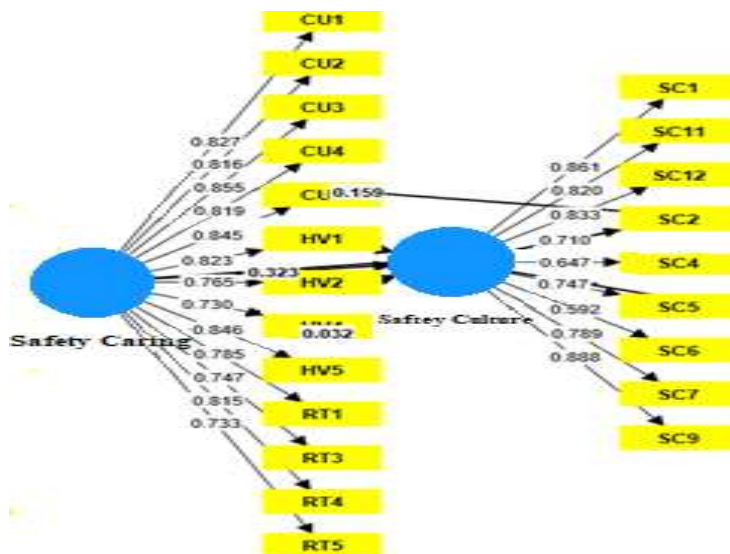| Hypothesis		Coefficient	S.D	t	p
H1	Harmony Value -> Safety Caring	0.106	0.042	2.007	0.04
H2	Respect and Trust -> Safety Caring	0.038	0.035	0.623	0.00
H3	Caring and Understanding -> Safety Caring	0.259	0.054	2.920	0.00
H4	Safety Caring -> Safety Culture	0.423	0.047	6.821	0.00

Figure 2: Path Diagram

By examining the provided hypotheses, there are great discoveries of the determinants of safety caring and the safety culture in organizations. As much as safety caring is concerned, the results reveal that harmony value is a positive factor as evidenced by the coefficient of 0.106, T-value = 2.007 and P-value = 0.04. This implies that creating a positive organizational culture, which can be characterized by orderliness, and proper working conditions that facilitates proper employee relations in the accomplishment of common objectives, facilitates safety caring behaviors. Moreover, it is revealed by a coefficient = 0.038 and T-value = 0.623 while the P-value = 0.00 meaning that respect and trust enough create safety caring behaviours.

Further, organizational caring/understanding has a large positive effect on safety caring; Coefficient = 0.259; T-value = 2.920; P-value = 0.00. This goes a long way in emphasizing that safety caring is facilitated by empathetic and a workplace that is supportive. In essence, it hypothesized and found that organizational care and psychological sense-making have the overall positive effect of encouraging individuals to be safe at the workplace. Moreover, safety caring greatly boosts the safety culture whereby if the level of safety caring is quadrupled; the safety culture would be likely to increase by 42. 3%; T-value = 6.821, P – value = 0.00. Consequently, it should be regarded important to enhance positive perceptions and practices of safety caring behaviors in the workplace hence enhancing the safety caring culture.

6. Discussion

This study's results, therefore, highlight the importance of organizational values in safety culture development for high-risk industries, MEPCO inclusive. These sources of constructor positive relationships, namely harmony value, respect and trust, caring and understanding, as well as the forecasted impact of safety caring on safety culture, offer important insights into the mobile's by which organizational support yields better safety outcomes.

The positive relationship between harmony value and safety caring provides evidence for the enactment of the hypothesis that employee who work in a proper and polite environment will be more inclined to perform safety-related actions. This result is consistent with SET (Social Exchange Theory) that explains that positive treatment from the organization results to positive behaviours from the employees (Chou, 2016). Hence, by practicing harmony values MEPCO will be in a position to develop an environment that is safety caring.

Similar to safety communication, safety involved parties were also identified to have a confirming relationship with respect and trust with safety caring mindset being positively influenced (Zara et al., 2023). The outcome discussed above proves that trust is crucial in the development of the strong positive reciprocal relations in the organization. Those who have positive attitude toward organizational leaders, namely that their leaders respect them and trust them, are more likely to turn in safety information on themselves and to abide by safety directives (Lee et al., 2023). Consequently, this research stresses on the fact that the MEPCO has to develop a culture that does not tolerate any kind of compromise to the principles of respect and trust.

This adds strength to the hypothesis that empathy and support from leaders help in the development of safety cares among the employees. Management that can show that they care for the employees can do a lot in improving morale and consequently commitment to safety amongst the personnel (Hassan et al., 2020). This concurs with SET since the employees in return give back to the organization the care they are being showered with.

In view of this, the study established that safety caring had a direct positive correlation with safety culture (Wu et al., 2008). It can be stated that the experimental factor of proactive safety measures, as well as leadership support, play a significant role in the formation of a strong safety culture. Hazard control and early identification of unsafe behaviors and conditions, coupled with corrective actions, remind employees and subordinates as well as other organizational members about the organization's safety stance and, therefore, improve the safety culture (Tappura et al., 2022). This study therefore confirms the role of leadership in the development and maintenance of safety culture at MEPCO.

As it shall be seen from the comparative studies presented in the extant literature, these findings are consistent with prior research. For example, Basahel (2021) stressed that leadership factors were the primary effects on safety climate by noticing that leaders who focus and are concerned on safety, could affect safety results. In the same way (Zohar, 2002) concluded that organizational factors; safety climate that encompasses aspects of trust and respect significantly explains the safety actions the employees are capable of.

On similar context, another study done by Mearns et al. (2001) also focused on relationship of organizational support and improvement of safety culture in offshore oil and gasplatforms. Their conclusions were that organizational support, which implies respect and trust between subordinates and superiors at the work place, has a positive impact on safety climate and thus, results in reduced incidence levels. Thus, this work relates to the current research focus on respect and trust as critical factors that promote safety caring.

In addition, Sankar et al. (2022) conducted a study to determine the effects of safety leadership on safety performance in construction organizations. Safety leadership of behaviors the researchers proved that safe coaching and effective safety management for instance are positive outcome of safety culture and employees' safe performance (Moon, 2024). This supports the findings of the current study regarding safety caring as a key construct that defines safety culture.

7. Conclusion

The present study produces convincing data that the core business values of organization – harmony, respect, trust, caring and understanding help nurture safe caring behaviours that are important in the enhancement of safety culture. Through applying the perspective of Social Exchange Theory, the study shows how these relationships are mutual, showing that the organisation's use of positive practices yields positive safety results. The study's implications for MEPCO and other high-risk organizations are discussed, which should deploy strategies to foster regular respect in workplaces to increase safety performance.

7.1. Recommendations

The following recommendations are proposed for the improvement of safety culture by MEPCO based on the finding of this study. First of all, it is crucial to promote the harmony values. There is also a need for MEPCO to encourage the different employees to be in different teams that will enhance team work and recognition. Employees need to know that they can freely speak their minds with their employers in the course of work. MEPCO can therefore facilitate safety behaviours by invoking harmony values that pull in a positive drip towards safety behaviours.

Building and improving the respect and trust that workers have for each other is another major recommendation. Being attentive to the employees' grievances and attending to safety concerns as they are raised is one way of showing care. Being transparent in safety decisions fosters confidence with the employees and ensures the management's actions are justified. When employees receive recognition and are trusted, they will be more disciplined and will report any issue that can cause an accident, hence making the place safe.

Promoting care and sensitivity within MEPCO is also another requirement that should be put into consideration. Training sessions can enable employees to prevent and deal with fatigue related to the biomechanical and psychosocial aspects of work. To enhance employee healthiness, the flexible working condition and mental health resources are provided to the workers. Managers who show concern for their subordinates' health can promote improvement of morale and effective workers' safety and thus, get a higher level of commitment from such workers.

Another big step is taken in the improvement of the safety caring practices. Subsequently, MEPCO ought to offer safety coaching programs focused on improving the employees' understanding of safety practices as well as their engagement in safety activities. Appreciation of employees helps in supplementing the safety culture since other members of the team will emulate the efforts showcased by other members. Such preventive measures assist in developing a safety culture, where safety is foremost in people's minds.

Last but not least, maintaining a strong safety culture is a long-term process. There is information indicating that MEPCO needs to conduct appraisal of safety measures periodically with reference to the responses of employees and safety quotient statistics. Hence encouragement of a culture of safety responsibility that involves all employees enhancing the safety of the workplace is vital. Achieving the goal of improving MEPCO's safety performance, it is essential to note that the safety culture encompasses the elements of trust, communication, and the constant safety performance improvement.

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