International Journal of Occupational Safety and Ergonomics

Relationship Between Organizational Justice and Organizational Safety Climate: Do Fairness Perceptions Influence Employee Safety Behaviour?

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Published online: 08 Jan 2015.

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Relationship Between Organizational Justice and Organizational Safety Climate: Do Fairness Perceptions Influence Employee Safety Behaviour?

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This study investigated the relationships between organizational justice, organizational safety climate, job satisfaction, safety compliance and accident frequency. Ghanaian industrial workers participated in the study (N = 320). Safety climate and justice perceptions were assessed with Hayes, Parender, Smecko, et al.'s (1998) and Blader and Tyler's (2003) scales respectively. A median split was performed to dichotomize participants into 2 categories: workers with positive and workers with negative justice perceptions. Confirmatory factors analysis confirmed the 5-factor structure of the safety scale. Regression analyses and t tests indicated that workers with positive fairness perceptions had constructive perspectives regarding workplace safety, expressed greater job satisfaction, were more compliant with safety policies and registered lower accident rates. These findings provide evidence that the perceived level of fairness in an organization is closely associated with workplace safety perception and other organizational factors which are important for safety. The implications for safety research are discussed.

organizational justice   organizational safety climate   perceived organizational support
industrial accidents   safety management

1. INTRODUCTION

The impact of psychosocial work factors on organizational behaviour is well recognized in the organizational literature. Research has shown that employees develop a set of coherent perceptions and expectations based on the appraisals drawn from the social and organizational conditions in which they perform their assignments. These evaluations are technically referred to as organizational climate. According to Schneider, Bowen, Ehrhart, et al., "the sense people make of the patterns of experiences and behaviours they have, or other parties to the situation have, constitutes the climate of the situation" (p. 22) [1]. Organizational safety climate is a subset of organizational climate. It denotes the shared perceptions of safety values, norms, beliefs, practices and principles that workers have of their work environment [2]. For Neal and Griffin, it describes the "individual perceptions of policies, procedures and practices relating to safety in the workplace" (p. 946–7) [3]. Essentially, these perceptions reflect employees' beliefs about the priority of organizational safety and consequently inform behaviour-outcome expectancies. Research reports along this line have shown positive correlations between safety climate and compliance

with safety management polices [4, 5]; participation in citizenship behaviours [5, 6]; supportive perceptions [4, 7] and a negative correlation with accident frequency [4, 8]. Recent meta-analytic evidence [9] and theoretical models [10, 11] found support for these linkages and provide more credibility to the observations. Thus, organizational safety scientists [7, 8, 9] have consensually agreed that organizational climate predicts safety climate, which in turn is related to safety performances. One set of organizational constructs that is linked to climate perceptions, which could potentially impact on safety climate is justice climate or the extent to which workers perceive fairness in their organizations.

1.1. Organizational Justice

Organizational justice describes employees' perceptions of fair or unjust treatment received from their management and their behavioural reactions to such perceptions [12]. Meta-analytic studies and reviews have confirmed three dimensions: distributive, procedural and interactional justice (e.g., Colquitt, Conlon, Wesson, et al. [13]. Distributive justice denotes employees' perceptions of the fairness of the outcomes they receive relative to their contributions, and the outcome and contributions of their colleagues [12]. Procedural justice denotes employees' perceptions of the fairness of decision-making processes, procedures that determine those contributions and regulate the distribution of resources [12]. Procedures are judged based on their consistency of application, prevailing ethical standards, impartiality and rationality [13]. Interactional/relational justice, on the other hand, has been defined as the perceived fairness of the interpersonal treatment displayed by supervisors and management [14]. These reflect perceptions of being treated with honesty, propriety and respect in the workplace.

These shared perceptions on justice create a climate that promotes or inhibits positive organizational behaviours, and have consistently been found to be related to employee work-related attitudes and behaviours [13]. When employees have perceived justice and fair treatment in the workplace, they have expressed higher levels of job satisfaction [13, 15]; displayed more commitment

and lower turnover rate (e.g., Simons and Roberson 16]) and actively participated in organizational citizenship behaviours [17]. Conversely, when employees have perceived and experienced injustice and unfair treatment, they have reported lower levels of job satisfaction [18], mistrust in both supervisors and management [19], withdrawn participation in organizational citizenship behaviours [17] and displayed less organizational commitment [20]. Furthermore, they have been motivated to redress perceived injustice by engaging in counterproductive organizational behaviours (COBs) such as theft, sabotage [12, 21]; vandalism, absenteeism and resistance [22]. Meta-analytic reviews by Niehoff and Moorman [13] and Cohen-Charash and Spector [15] confirm and support these observations.

1.2. Organizational Safety Climate and Organizational Justice

A key commonality across these two organizational constructs is the fact that they both are constructed through social interactions, and are drawn from the social and organizational circumstances in which workers perform their assignments (organizational climate). Previous studies have suggested that shared perceptions of organizational climate exist with regards to the fairness of policies and procedures [23]. Accordingly, justice researchers (e.g., Liao and Rupp [24]) have noted that perceptions of inequity (injustice) motivate people to make adaptive responses in a variety of ways, both cognitively and behaviourally. That is to say, employees make distinct judgements about fairness treatment received from their supervisors and organizations, which ultimately predict important attitudes and behaviour relevant to job outcomes. Based on this reasoning, it seems logical to expect justice climate to have incremental validity in predicting employees' safety behaviour, by which safety performance could increase or decrease in relation to employees' perceptions of how fairly they are being treated in the workplace.

Although no research to date has investigated the impact of fairness perception on safety performance, more general evidence for this relationship exists. In a closely related study that

examined the impact of climate perceptions (specifically, perceived organizational support [POS]) on employee safety behaviour, Gyekye and Salminen found that workers with positive perspectives regarding organizational support, similarly had positive views concerning workplace safety [4]. Correspondingly, they expressed higher levels of job satisfaction, were more inclined to work in a safe manner and, consequently, experienced lower accident involvement rate. The explanation for this observation was drawn from the social exchange theory (SET), a theory that has been the central principle used in explaining the motivational basis for climate perceptions and organizational behaviours [16, 25].

1.3. SET

The theoretical underpinning of this research and its hypotheses is SET [25, 26]. Central to SET is the norm of reciprocity, which obligates employees to respond positively to favourable treatment received from organizational management. In contrast to an economic exchange, where behaviour is dictated by a specific contract between employee and the organization, social exchange consists of diffused, nonspecific, informal agreements that are based on trust between two parties. According to SET, individuals who are treated favourably by others feel a sense of indebtedness and obligation to respond positively and return the favourable treatment in some manner. A review of literature on SET provides considerable evidence that the level of perceived justice is directly related to the quality of resulting social exchange relationships between employees and their organizations [28]. The resulting social exchange repeatedly has been a significant predictor of important employee attitudes and behaviours, including enhanced job satisfaction, organizational citizenship behaviours and safety performances (e.g., Gyekye and Salminen [4, 5]; Simons and Roberson [16]; Organ [29]).

Recently, Hofmann, Morgeson and Gerras have extended the social exchange relationships to the realm of safety management [30]; they have suggested that employees are likely to use safety performance as an avenue to reciprocate favourable perceptions regarding organizational

safety climate. DeJoy, Della, Vandenberg, et al.'s recently tested model that focused on social exchange in the context of safety management confirmed the validity of this proposal [27]. From a justice perspective, perceptions of fair treatment are likely to generate positive and high-quality social exchange relationships, which in turn will create obligations for the worker to repay management or the organization with safe work performances. Thus, in the current study, employee perceptions of justice are hypothesized to influence employee safety behaviours and their consequences.

1.4. Current Study and Hypotheses

No prior research, to the best of our knowledge, has empirically examined and demonstrated a link between organizational justice and organizational safety climate. This study addressed the paucity. It compared (a) the safety perceptions of workers with positive justice perceptions with their counterparts with negative justice perceptions, (b) their levels of job satisfaction, (c) their compliance with safety management policies and (d) their accident involvement rate. An attempt was also made to investigate the extent to which the three facets of organizational justice (procedural, distributive and interactional justice) predicted safety behaviour. The dearth of research in organizational behaviour in developing nations, particularly Africa, was another reason for these analyses.

Consistent with the social exchange logic and the aforementioned literature review, the following hypotheses were proposed:

Hypothesis 1: Link between organizational justice and organizational safety climate: despite the absence of ample evidence that bears directly on this link, we anticipate a positive association between organizational justice and organizational safety climate.

Research Question 2: The extent to which the three facets of organizational justice predict safety behaviour: because of the absence of evidence that bears directly on this link, this relationship is tested and no hypothesis is offered on its direction.

Hypothesis 3: Link between organizational justice and job satisfaction: consistent with existing empirical and theoretic work, it is anticipated that workers with higher (positive) justice perceptions would express higher levels of job satisfaction than their counterparts with lower (negative) justice perceptions.

Hypothesis 4: Link between organizational justice and safety behaviour: drawing from SET, it is anticipated that workers with positive justice perceptions would be more compliant with safety management policies than their counterparts with negative perceptions.

Hypothesis 5: Link between organizational justice and accident frequency: despite the absence of ample evidence, it is anticipated that workers with higher (positive) perceptions of organizational justice would register fewer accidents than their counterparts with lower (negative) perceptions.

2. METHODOLOGY

2.1. Participants

Ghanaian industrial workers from underground mines ($n = 102$) and factories ($n = 218$) participated in the study ($N = 320$). The factory workers were mainly from textiles, breweries, food processing plants, and timber and saw-mill plants. Sixty-five percent ($n = 208$) were male, 35% ($n = 112$) were female. Subordinate workers made up 75% ($n = 240$), supervisors 25% ($n = 80$) of the total number. Forty-two percent ($n = 134$) of the participants was married, 58% ($n = 186$) were unmarried. Their educational background was as follows: 50% ($n = 159$) had basic education, 30% ($n = 98$) had secondary education, 17% ($n = 56$) had vocational education and 3% ($n = 7$) had university education.

2.2. Procedure

During lunch break, participants responded to a questionnaire in English, which took 15–20 min to complete. Supervisors completed the questionnaire unaided. For illiterate or semiliterate respondents who had difficulty understanding written English, the local language was used via the interpretation of a research assistant. All were assured that their responses would remain anonymous and confidential and would not be disclosed even to their line managers.

2.3. Instruments

2.3.1. Organizational safety climate

Workers' perceptions of safety were measured with the 50-item workplace safety scale (WSS) developed by Hayes, Parender, Smecko, et al. [31]. This instrument assesses employees' perceptions of work safety and measures five distinct constructs, each with 10 items: (a) work safety (sample item: "Safety programmes are effective", $\alpha = .96$); (b) co-worker safety (sample item: "Pay attention to safety rules", $\alpha = .80$); (c) supervisor safety (sample item: "Enforces safety rules", $\alpha = .97$); (d) management's commitment to safety (sample item: "Responds to safety concern", $\alpha = .94$); (e) satisfaction with safety programme (sample item: "Effective in reducing injuries", $\alpha = .86$). Total coefficient α score was .89.

2.3.2. Organizational justice

Organizational justice was measured with Blader and Tyler's scale [32]. This instrument consists of 15 items and assesses participants' perceptions of fairness on (a) distributive justice (sample item: "My work load and responsibilities are fair", $\alpha = .84$) and (b) procedural justice (sample item: "All job decisions are applied consistently to all workers", $\alpha = .93$). Niehoff and Moorman's scale [14] was used to measure (c) interactional justice (sample item: "When decisions are made about my job, my supervisor shows concern for my rights as an employee", $\alpha = .93$). Total coefficient α score was .97. The attention to all three dimensions made this a more parsimonious study [20, 33].

2.3.3. POS

POS refers to workers' general perceptions regarding their managements' contributions and concern for their well-being [34]. It was measured with the

short version of Eisenberger, Fasolo and Davis-LaMastro's survey [34]. The scale consisted of eight items and assessed workers' evaluations of organizational issues that affected their well-being. Sample items were "The organization values my contribution to its well-being", "The organization takes pride in my accomplishments" and "Help is available from the organization when I have a problem". Total coefficient α score was .97.

2.3.4. Job satisfaction

Job satisfaction is defined as the degree to which a worker experiences positive affection towards his or her job [35]. It was measured with Porter and Lawler's one-item global measure of job satisfaction [36]. This measure was chosen because single-item measures of overall job satisfaction have been considered to be as robust as scale measures [37], and has been used extensively in the organizational behaviour literature [38]. The measure has five response categories ranging from *extremely dissatisfied* to *extremely satisfied.*

2.3.5. Safety compliance

Safety compliance denotes the fundamental and essential activities that employees need to carry out to maintain workplace safety. Items for safety compliance were pooled from the extant literature (e.g., Neal and Griffin [3]) (sample item: "Follow safety procedures regardless of the situation", α = .78). Total coefficient α score was .80. Participants responded to all the aforementioned measuring instruments on a 5-point scale ranging from 1 = *not at all* to 5 = *very much.*

2.2.6. Accident frequency

Accident frequency was measured with responses to a question on the number of times the participants had been involved in accidents in the past 12 months. All cases were accidents that had resulted in three or more consecutive days of absence and, therefore, the safety inspection authorities classified them as serious.

2.4. Data Analyses

Four statistical approaches were applied for the data analyses. First, a correlational analysis examined the interrelationships between organizational justice, organizational safety and the other variables under study. Second, the responses of all 15 organizational justice items were calculated, and a median split was performed to segregate the sample into two groups: participants with positive justice perceptions (n = 154) and participants with negative justice perceptions (n = 166). Using this as an independent variable, differences between the two groups were identified with a one-tailed t-test analysis. This provided comparative scores for the five subscales of the WSS, total WSS scores, job satisfaction, compliance with safety procedures, and accident frequency. Third, a linear regression analysis was performed to assess the degree at which the WSS predicted organizational justice. Fourth, because POS has been shown to mediate the relationships between organizational justice and organizational outcomes such as organizational commitment, organizational citizenship behaviours, job satisfaction and organizational safety climate [39], the degree at which it predicts justice perceptions was also assessed. A confirmatory factor analysis verified the factor structure of the WSS and provided support for the construct validity. Finally, regression analysis was applied to investigate the degree at which the three facets of organizational justice predicted safety behaviour. SAS statistical package version 9.1 was used for assessing the psychometric properties of the measures, the descriptive statistics and correlations. Table 1 shows descriptive statistics and bivariate correlations between the study variables.

3. RESULTS

The results provided general support for our predictions, as they indicated significant correlations in the expected directions. As Table 1 shows, organizational justice indicated strong positive correlations with organizational safety climate and its five subscales: work safety, co-worker

TABLE 1. Correlations Among Variables Under Study

Variable	OJ	1	2	3	4	5	6	7	8	9	10	11	12
1. Work safety	.54**	1.00											
2. Co-worker safety	.88**	.52**	1.00										
3. Supervisor safety	.88**	.50**	.85**	1.00									
4. Management safety practices	.90**	.55**	.85**	.91**	1.00								
5. Safety programmes	.73**	.43**	.71**	.73**	.77**	1.00							
6. Organizational safety climate	.92**	.66**	.91**	.95**	.97**	.82**	1.00						
7. Compliance with safety procedures	.94**	.52**	.84**	.87**	.89**	.72**	.90**	1.00					
8. POS	.92**	.52**	.84**	.85**	.87**	.73**	.90**	.90**	1.00				
9. Job satisfaction	.91**	.56**	.86**	.84**	.87**	.71**	.90**	.89**	.91**	1.00			
10. Accident frequency	−.93**	−.71**	−.85**	−.87**	−.89**	−.73**	−.91**	−.93**	−.92**	−.91**	1.00		
11. Distributive justice	.96**	.54**	.82**	.83**	.85**	.69**	.87**	.88**	.86**	.86**	−.88**	1.00	
12. Procedural justice	.97**	.92**	.85**	.85**	.88**	.70**	.89**	.92**	.91**	.89**	−.91**	.90**	1.00
13. Relational justice	.97**	.54**	.86**	.88**	.89**	.73**	.92**	.93**	.90**	.89**	−.91**	.89**	.92**

Notes. ** $p < .001$; OJ = organizational justice, POS = perceived organizational support.

safety, supervisor safety, management safety practices and safety programmes. There were also significant positive associations with job satisfaction and compliance with safety policies, and a negative correlation with accident frequency. All three justice dimensions intercorrelated strongly and positively. The correlational evidence is thus consistent with our hypotheses 1, 3, 4 and 5.

Significant differences between the two categories of workers on the WSS and the other organizational variables were revealed by *t* tests (Table 2). A dissection of the five subsets on the WSS indicated the following: workers with high (positive) fairness perceptions significantly perceived their jobs to be less hazardous than their counterparts with low (negative) perceptions of work safety. They significantly noticed and appreciated their co-workers' contributions towards safety, and perceived their supervisors to be supportive of workplace safety. Additionally, they expressed more satisfaction with management's safety practices and were significantly contented with their organizations' safety programmes. They significantly complied with the organizational safety management policies and

TABLE 2. Descriptive Statistics and *t* Test Between Positive and Negative Justice Perceptions

Variable	Positive OJ M (SD)		Negative OJ M (SD)		t	df
WSS	35.22	(3.73)	29.55	(5.61)	10.67**	314
Co-worker safety	35.81	(3.32)	25.74	(3.96)	24.62**	316
Supervisor safety	36.61	(4.97)	20.19	(6.24)	26.34**	317
Management safety practices	40.12	(5.42)	20.06	(7.47)	27.40**	313
Safety programmes	32.71	(2.96)	26.99	(3.31)	15.80**	298
Total WSS	180.40	(12.97)	121.68	(20.34)	29.44**	288
Compliance with safety procedures	16.89	(1.29)	7.52	(2.97)	37.06**	318
Job satisfaction	4.30	(0.53)	1.79	(0.87)	31.59**	318
Accident frequency	1.05	(0.23)	3.25	(0.76)	−35.47**	318

Notes. ** $p < .001$; OJ = organizational justice, WSS = work safety scale.

recorded relatively lower accident involvement rate. These results give further support for hypotheses 1, 3, 4 and 5.

The linear regression analysis indicated the total score of the WSS to be a significant predictor of organizational justice; $F(5, 289) = 377.28$, $p < .001$, $R^2 = .87$. Among the five subscales, co-worker safety, supervisor safety and management safety practices significantly predicted organizational justice. However, work safety and safety programme did not. Table 3 presents the β coefficients for these regressions. To increase the statistical power of the study, the composite variable of the WSS subscales and POS were further analysed with age and organizational tenure as control variables. Table 4 reflects the results: total WSS and total POS were significant predictors of organizational justice. Due to the high correlation coefficients obtained between the variables, the data were checked for possible violations of

assumptions. A check with tolerance and variance inflation factor (VIF) showed no issue with multi-collinearity. The tolerances were all over .10 [40] and ranged between .51 and .90; VIFs were all under 10 [41] and ranged between 1.03 and 1.95.

Results from the liner regression analysis meant to investigate which of the three justice facets predicted safety behaviour (compliance with safety behaviour) indicated that all three justice components significantly predicted safety behaviour. The strongest predictor was relational justice, followed by procedural justice. Distributive justice impacted moderately. Organizational justice as a whole was a significant predictor of safety behaviour; $F (3, 319) = 883.46$, $p < .001$, $R^2 = .89$. Table 5 presents the β coefficients for these regressions.

The original five-factor structure of the WSS was checked with a confirmatory factor analysis. Each of the five subscales had 10 independent items. Results indicated that though the last items of the scale had rather low squared multiple correlations, the five factors correlated rather well with each other. This model thus suited our data set, as the coefficient $\chi^2/df = 2.39$ indicated an acceptable fit (required values 1–3) [42]. Root mean square error of approximation (RMSEA) for confirmatory factor analysis was .06, which marginally exceeded the limit value of .05. The comparative fit index (CFI = .91) and the Tucker–Lewis coefficient index (TFI = .90) were well above the criterion value of .90. Figure 1 displays the results.

TABLE 3. Regression Analysis for the 5 Subsets of the Workplace Safety Scale Predicting Organizational Justice

Predictor	β
Work safety	.03
Co-worker safety	.32**
Supervisor safety	.25**
Management safety practices	.37**
Safety programmes	.03
R^2	.87**
F	377.28**

Notes. ** $p < .001$.

TABLE 4. Regression Analysis for the Total Workplace Safety Scale (WSS) and Perceived Organizational Support (POS) Predicting Organizational Justice

Predictor	β
Age	.04
Tenure	.01
WSS	.46**
POS	.48**
R^2	.90**
F	646.56**

Notes. ** $p < .001$.

TABLE 5. Regression Analysis for the 3 Facets of Organizational Justice Predicting Safety Behaviour

Predictor	β
Distributive justice	.11*
Procedural justice	.37**
Relational justice	.49**
R^2	.89***
F	883.46***

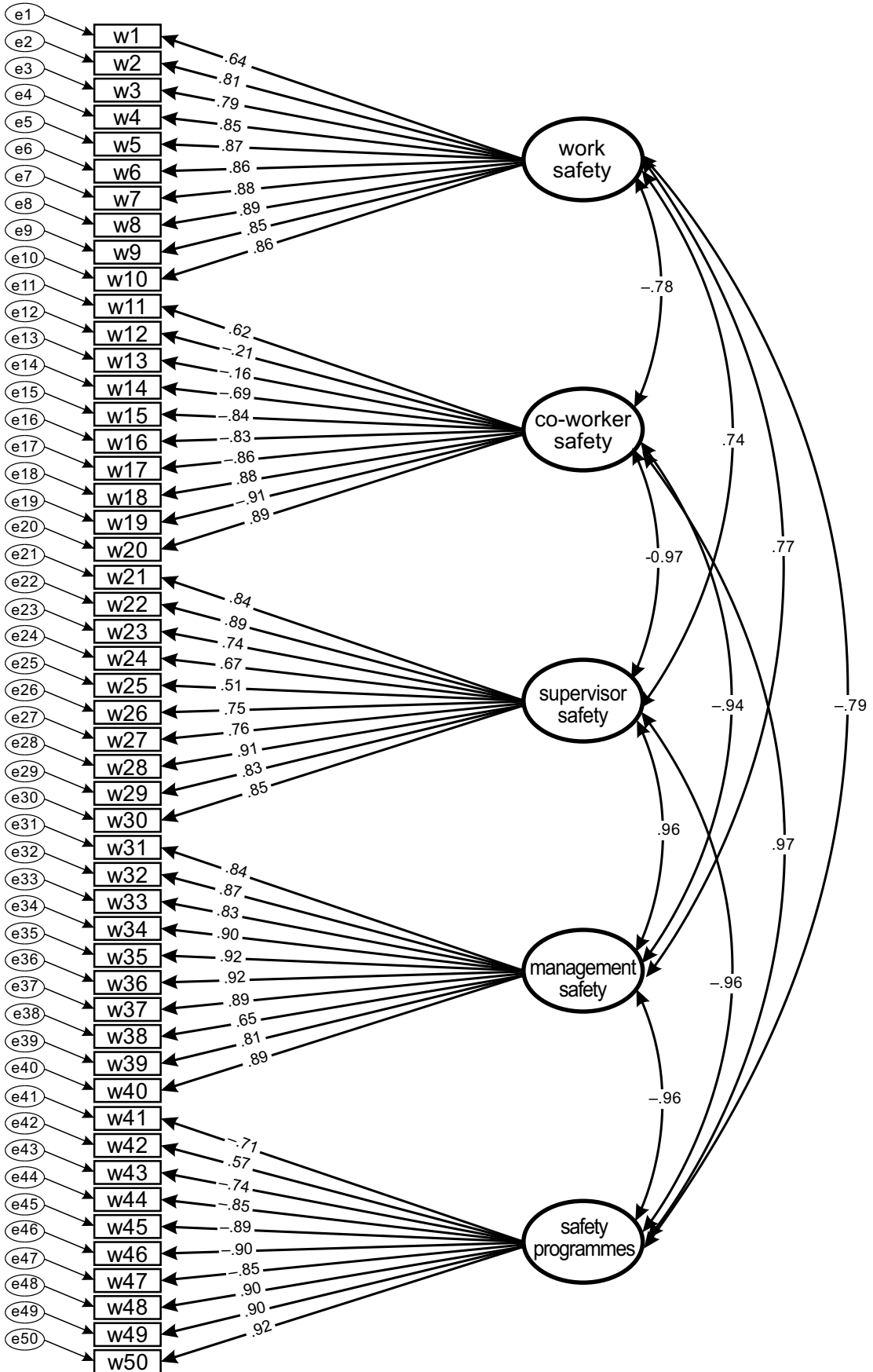*Notes.* * $p < .05$, ** $p < .01$, *** $p < .001$; safety behaviour = compliance with safety behaviour.

Figure 1. Confirmatory factor analysis on the work safety scale. *Notes.* e1 … e50 = residues for w1 … w50, respectively; w1 … w50 = representations of item 1 … item 50 of the work safety scale (WSS).

4. DISCUSSION

The study investigated the link between organizational justice and organizational safety climate. It also examined links with job satisfaction, compliance with safety management policies and accident frequency. The results provided general support for our hypotheses. As predicted, and in accordance with the social exchange theory, workers with positive fairness perceptions responded favourably to their organizations in the form of safe work behaviour. Additionally, they also indicated constructive views regarding organizational safety climate, expressed higher levels of job satisfaction, were more compliant with safety management policies and experienced relatively lower accident involvement rate. Conversely, workers with experiences of injustice treatment indicated negative assessments regarding safety climate, were less satisfied at their posts, less committed to safe work and experienced higher accident frequencies.

Ostensibly, employees' perceptions of fair treatment at the workplace appear to translate into safety behaviour practices. Compliance with safety management policies seems to be the avenue through which workers who perceive fair treatment reciprocate the implied obligation to their organizational management. Meanwhile, workers with negative justice perceptions had considered themselves to have received lower inducements from organizational management, and had not reciprocated with the same level of safety performance. The current observation is thus consistent with Hofmann et al.'s assertion that lower safety performance is one mechanism used by workers to restore personal feelings of equity regarding the social exchange relationship [30].

The results also demonstrated a positive link between fairness perception and job satisfaction. Job satisfaction involves an appraisal of organizational structures and salient job attributes and is, hence, closely linked with organizational climate and organizational safety climate. In line with our predictions for hypothesis 3, workers who perceived higher levels of fair treatment expressed higher levels of job satisfaction. This observation is consistent with the notion that workers' positive perceptions regarding organizational climate impact positively on their satisfaction levels, with subsequent implications for their safety performances [43]. It corroborates previous research examining the job satisfaction–fairness relationships that has consistently found a significant, moderate-to-large positive association between the two variables [44].

A key observation was the finding that all three facets of organizational justice were significantly and strongly related to safety behaviour: scores revealing safety behaviour indicated approximately equal correlations with distributive ($r = .88$, $p < .05$), procedural ($r = .92$, $p < .001$) and relational justice ($r = .93$, $p < .001$). Relational justice indicated the strongest impact. This finding is important, as the three facets have differentially been related to different organizational constructs and outcomes (e.g., organizational citizenship behaviour [45], job satisfaction [44]). More importantly, it represents an element of the collectivistic experience that Ghanaians share. As a group and relationship-oriented community, it seems logical that relational and interactional concerns indicated a slight edge over the other two justice facets. In addressing workplace injustice, Ghanaian organizational management should pay attention to all three dimensions, but with relatively more focus on the interactional aspect.

4.1. Implications of Findings

According to the research data, interventions aimed at addressing injustice will significantly improve employee dissatisfaction, safety behaviour and safety performances. Organizational management could ensure that fairness treatment is consistent, unbiased and ethical. At the procedural level, organizational management could endeavour to maintain consistency, accuracy and transparency in their evaluation processes. Injustice at the relational level could be addressed by authorities treating subordinates with respect and dignity, and refraining from inappropriate comments on their work attitudes. Although the implementation and administration of fair procedures may be determined at the top management level, it is supervisors (front-line managers) who

normally manage these practices; as they structure, co-ordinate and facilitate work activities. For employees, supervisors' behaviour is the main indicator of how the organization treats and appreciates them [46]. It is imperative, therefore, that supervisors and front-line managers be educated on the importance of applying human resource practices, and react to subordinate workers' concern with some level of sensitivity, in a fair and respectful manner. According to the safety literature, front-line mangers and the climates they help create within their work groups have significant impact on the safety performance of their subordinates [46, 47].

Implementing these measures will contribute to building a supportive climate that will promote a sense of trust and belongingness in the organization. Additionally, they will signal to workers that their organizational management respects and appreciates their contributions. This will eventually lead to a deeper sense of obligation within the social exchange relationship [25]. Fundamentally, they will address employee violations of safety policies, with a resultant decrease in accident frequency and its concomitant social and human cost. Spillover effects would include an increase in employees' level of job satisfaction [13, 15], participation in citizenship behaviours (e.g., Colquitt, Conlon, Wesson, et al. [13], Chen, Lin, Tung, et al. [17]) and an increase in efficiency and productivity (e.g., Moorman [45]). It is worth noting that efforts to influence the beliefs and attitudes of workers and motivate them to engage in safe work behaviours may fail if the environment is not supportive ($\beta = .48$, $p < .001$). Thus, recent theoretical models have demonstrated that supportive safety policies and programmes do impact on safety climate and organizational commitment, and these relationships are mediated by POS [11, 27]. It follows from this additional vantage point on climate strength that when organizational climate is both positive and strong, one would expect the most consistently positive organizational behaviour from employees.

4.2. Study Limitations

While these results are encouraging, it is also important to consider that the study relies on self-reported instruments. There is, therefore, the possibility for common method variance among some of the scales. However, meta-analytic studies by Crampton and Wagner [48] and more recently Podsakoff, MacKenzie, Lee, et al. [49] inform that while this problem continues to be cited regularly, the magnitude of distortions may be overestimated. Self-reported measures have been effectively used in fairness (e.g., Ang, Van Dyne and Bergley [44]) and safety (e.g., Gyekye and Salminen [4], Blader and Tyler [32]) analyses. The cross-sectional and correlational design of the study precludes a causal inference. Future studies should consider longitudinal designs in which serial measurements will be made among the same participants over time. Organizational researchers could consider attempting to replicate this study using other forms of climates such as innovation or service climates. It is noteworthy that reverse causal is also conceivable, i.e., positive views regarding workplace safety might affect employee perceptions of fairness. Notwithstanding the aforementioned limitations, the current findings reinforce occupational and organizational psychologists' assertions on the impact of climate perceptions on workplace safety performance. Particularly, they reveal the influential bearing that fairness treatment in the workplace has on employees' safety performance, job satisfaction and accident frequency.

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