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The Relationship between Organizational Justice Perception, Job Motivation and Job Satisfaction among Ground Handling Workers in the Aviation Sector

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ABSTRACT

Research Aims: This study examines whether organizational justice perception is related to job motivation and job satisfaction among ground handling workers, a workforce characterized by persistently high turnover, and whether these perceptions differ across demographic groups.

Design/methodology/approach: A cross-sectional survey was administered to 347 employees (147 women, 200 men) of a ground handling company operating at an airport in Türkiye, drawn from the operations, passenger services, and ramp departments. Organizational justice, job satisfaction, and job motivation were measured with scales previously adapted into Turkish. As scale scores departed from normality, Mann–Whitney U, Kruskal–Wallis H, and Spearman correlation analyses were used. Effect sizes and 95% confidence intervals accompany the inferential tests, and common method bias was addressed through procedural remedies built into the data collection.

Research Findings: Organizational justice correlated positively with job satisfaction ($r = .768$) and job motivation ($r = .668$), and satisfaction correlated with motivation ($r = .717$; all $p < .01$). Procedural and interactional justice were more strongly associated with both outcomes than distributive justice, and the weakest association was observed between distributive justice and intrinsic motivation. Women perceived higher procedural and total justice, satisfaction differed only by education level, and motivation showed no demographic differences.

Theoretical Contribution/Originality: Beyond extending justice research to an understudied workforce, the study specifies which dimension of fairness maps onto which quality of motivation. The gradient predicted by self-determination theory appears in full: the weakest coefficient in the matrix links distributive justice to intrinsic motivation, while interactional justice shows the strongest link to it. The pattern identifies low outcome variance as a boundary condition on distributive justice, since standardized pay leaves outcome fairness little to discriminate. The findings suggest that transparent procedures and respectful supervisory communication offer more promising retention levers than measures focused on pay alone.

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Introduction

Ground handling occupies an unusual position in commercial aviation. The work is largely invisible to passengers, yet nearly every element of an on-time departure passes through the hands of ground handling personnel: check-in and boarding, baggage and cargo handling, ramp coordination, and aircraft servicing. The operating environment combines strict safety regulation, round-the-clock scheduling, and turnaround windows measured in minutes, and the sector has struggled to retain the people who do this work. Employee turnover is repeatedly identified as one of the industry's most persistent human resource problems, in aviation as much as in the adjacent service sectors from which much of the evidence comes (Satardien, Jano, & Mahembe, 2019; Tsaousoglou, Koutoulas, & Stavrinoudis, 2022). The departure of experienced staff and their replacement with newcomers carries costs beyond recruitment, because ground handling performance depends on the coordination of trained personnel across tightly linked and time constrained processes (Kovynyov & Mikut, 2019; Schmidberger, Bals, Hartmann, & Jahns, 2009).

Why employees stay, exert effort, and remain psychologically engaged is a long-standing question in organizational behavior, and perceived fairness has proven one of its more reliable answers. Employees continuously evaluate how outcomes are distributed, how decisions are made, and how they are treated by those in authority; where these evaluations are favorable, positive attitudes toward the organization tend to follow (Cropanzano, Bowen, & Gilliland, 2007). Social exchange theory offers the most common account of this pattern: fair treatment is read as a benefit extended by the organization, and employees reciprocate with trust, commitment, and effort (Blau, 1964; Colquitt & Rodell, 2011).

Two further constructs are closely connected to justice in this literature. Job motivation refers to the direction, intensity, and persistence of work-related effort (Ryan & Deci, 2000), and meta-analytic evidence indicates that its effect on job performance is stable across performance criteria and time lags, while the reverse path from performance to motivation is not supported (Wang, Luan, & Ma, 2024). Job satisfaction, in Locke's (1976) classical formulation a pleasurable emotional state resulting from the appraisal of one's job, is consistently associated with both motivation and the justice perceptions that precede it (Colquitt, Conlon, Wesson, Porter, & Ng, 2001).

Although the individual links among these constructs are well documented, studies examining justice, motivation, and satisfaction together in a single sample of ground handling workers are scarce. Most aviation research on work attitudes has concentrated on pilots, cabin crew, and airline office staff; there have been limited studies concerned specifically with the ground handling workforce, despite its size and its exposure to conditions such as shift work, time pressure, and physical workload, under which fairness perceptions can be expected to matter most.

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Therefore, this research intends to address that gap. The objectives of this study are to determine whether organizational justice perception is related to job motivation and job satisfaction among ground handling workers, whether job satisfaction and job motivation are related to one another, and whether these perceptions differ across demographic groups.

This study is therefore positioned as more than a replication in a new setting. Because ground handling combines standardized pay structures with highly visible daily procedures, it separates the three justice dimensions more cleanly than the professional and managerial samples on which justice theory was largely built. That separation permits a direct test of the predictions self-determination theory makes at the level of individual dimensions, namely that procedural and interactional fairness should track intrinsic outcomes while distributive fairness tracks extrinsic ones. Showing where those predictions hold, and where the relative weight of the dimensions shifts with the reward structure of the work, contributes to the specification of justice theory rather than to its confirmation.

Literature Review

Organizational Justice

Organizational justice describes employees' judgments about how fairly they are treated at work and the attitudinal and behavioral consequences of those judgments (Greenberg, 1990). Its intellectual origins lie in Adams's (1965) equity theory, according to which employees compare the ratio of their inputs (effort, experience, time) and outcomes (pay, status, benefits) with that of referent others; perceived inequity produces tension that individuals seek to resolve, sometimes by reducing effort or leaving. Early research accordingly concentrated on the fairness of outcomes themselves, later termed distributive justice.

Attention subsequently shifted to the fairness of the procedures through which outcomes are decided. Thibaut and Walker (1975) showed that people value process control independently of results, and Leventhal (1980) specified the rules by which procedures are judged fair: consistency, bias suppression, accuracy, correctability, representativeness, and ethicality. Bies and Moag (1986) added a third concern, the quality of interpersonal treatment during the enactment of procedures, which Colquitt (2001) later separated into interpersonal justice, reflecting dignity and respect, and informational justice, reflecting honest and adequate explanation, validating a four-dimensional measurement model.

The consequences of these perceptions are well established. In a meta-analysis covering 183 studies, Colquitt et al. (2001) reported consistent positive relationships between all justice dimensions and job satisfaction, organizational commitment, task performance, and citizenship behavior; Cohen-Charash and Spector (2001) reached parallel conclusions in an independent meta-analysis. Trust appears to carry much of this effect: perceived fairness builds trust in management, which in turn shapes work attitudes (Aryee, Budhwar, & Chen, 2002), a mechanism recently confirmed in a

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serial mediation model linking organizational culture, justice, dehumanization, and affective commitment (Stinglhamber, Caesens, Nguyen, & Demoulin, 2023). Leadership is also relevant, since employees experience fairness largely through their managers. Ethical leadership behaviors are associated with stronger procedural and interactional justice perceptions (Brown, Treviño, & Harrison, 2005).

The literature is not uniform, however, and the relative importance of the justice dimensions varies across studies in ways the founding meta-analyses did not settle. Colquitt et al. (2001) found distributive justice most strongly related to outcome referenced attitudes and procedural justice to system referenced ones, whereas Lee (2011) reported procedural and interactional justice to be the stronger predictors of work attitudes in public organizations. The decade later replication by Colquitt et al. (2013) showed that the ranking depends on which outcome is modeled and on whether social exchange or affective mechanisms are specified, which suggests that the inconsistency is not noise but a matter of unresolved specification. Cross national evidence adds a further qualification. In a meta-analysis drawing on samples from a wide range of countries, Shao, Rupp, Skarlicki, and Jones (2013) found that cultural value orientations, including individualism and power distance, moderate the strength of justice effects, so that the relative weight of the dimensions is not constant across national contexts. Türkiye is classified toward the higher end of power distance in the cultural value frameworks these meta-analyses rely on, and whether findings obtained largely in Western samples transfer is therefore an empirical question rather than an assumption. The open issue is not whether justice matters but which dimension dominates under which reward and authority structure, and ground handling supplies an informative case because outcome variance across employees is compressed by design.

The importance of fairness becomes clearer when its absence is considered. Employees who judge outcomes, procedures, or treatment to be unfair tend to withhold discretionary effort, show weaker commitment, and report higher turnover intention (Cohen-Charash & Spector, 2001). In safety-critical operations the consequences reach further, because withdrawal in ground handling can involve not only slower service but also procedural shortcuts on the ramp. In this sector, fairness perceptions should therefore be treated as part of the operational risk picture, together with training and supervision, since they influence how reliably procedures are followed in practice.

Job Motivation

Work motivation concerns the psychological forces that initiate work behavior and determine its direction, intensity, and persistence (Ryan & Deci, 2000). Self-determination theory distinguishes autonomous motivation, grounded in interest and internalized value, from controlled motivation driven by external contingencies, and argues that this qualitative distinction matters more for workplace outcomes than the sheer amount of motivation (Deci, Olafsen, & Ryan, 2017). The theory links

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autonomous motivation to the satisfaction of three basic psychological needs, namely autonomy, competence, and relatedness, and organizational conditions, including fair treatment, bear directly on these needs. Herzberg's two-factor theory offers a complementary perspective: motivators such as achievement, recognition, and responsibility raise satisfaction and effort, whereas hygiene factors such as pay, working conditions, and company policy prevent dissatisfaction without, on their own, generating motivation (Herzberg, Mausner, & Snyderman, 1959). The practical relevance of the construct is well documented. Cross-lagged meta-analytic evidence shows that motivation exerts a stable effect on job performance across motivation types, performance criteria, and time intervals, whereas the reverse path from performance to motivation does not hold (Wang, Luan, & Ma, 2024).

Job Satisfaction

Job satisfaction remains among the most studied attitudes in organizational research. Locke (1976) defined it as a positive emotional state resulting from the appraisal of one's job or job experiences, and later work has treated it as a central node connecting working conditions to performance, absenteeism, and turnover (Judge & Kammeyer-Mueller, 2012; Spector, 1997). The Minnesota Satisfaction Questionnaire operationalizes the construct in two dimensions: intrinsic satisfaction, derived from the work itself and the use of one's abilities, and extrinsic satisfaction, derived from pay, supervision, policy, and working conditions (Weiss, Dawis, England, & Lofquist, 1967). Demographic patterns are inconsistent across studies, although differences between men and women in both the level and the sources of satisfaction have been documented (Clark, 1997).

Evidence linking justice to satisfaction in aviation and adjacent service settings continues to accumulate. Okan and Bayraktar (2022) reported a positive relationship between organizational justice and job satisfaction among 101 pilots, with the strongest association observed between procedural justice and extrinsic satisfaction, and Lee (2011) found procedural and interactional justice to predict satisfaction more strongly than distributive justice in public organizations. In a larger Turkish sample, Ertemsir, Bal, Demirhan, and Kökalan (2024) found a direct positive effect of justice on satisfaction among 360 airline employees, with workplace spirituality moderating the relationship. Related aviation research connects perceived organizational support and commitment to reduced turnover intention (Satardien, Jano, & Mahembe, 2019), and satisfaction to commitment and involvement more generally (Ćulibrk, Delić, Mitrović, & Ćulibrk, 2018). Read across countries these studies agree in direction but not in emphasis. Two Turkish samples, one of pilots (Okan & Bayraktar, 2022) and one of airline employees (Ertemsir et al., 2024), both report positive justice effects on satisfaction, the South African study of Satardien et al. (2019) locates the effect in perceived organizational support rather than in justice as such, and the United States federal sample of Lee (2011) places procedural and interactional justice ahead of distributive justice. What these settings share is a workforce whose pay is largely

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determined outside the immediate work unit, which is also the condition under which the present sample was drawn. However, this body of work has not yet examined justice, motivation, and satisfaction jointly within the ground handling population.

Ground Handling as a Work Context

Ground handling covers the operational and logistical activities required to turn an aircraft around safely and on schedule: passenger check-in and boarding, baggage and cargo operations, ramp services, and aircraft servicing (Kovynyov & Mikut, 2019). The work is shift-based, physically demanding in ramp roles, emotionally demanding in passenger-facing roles, and conducted under continuous time pressure. Under such conditions, fair procedures and respectful treatment can be expected to have a strong influence on work attitudes, which makes the scarcity of justice research on this workforce an important gap.

Hypothesis Development

Based on the theoretical accounts and empirical evidence reviewed above, four hypotheses were developed. Social exchange theory holds that fair treatment is interpreted as a benefit extended by the organization, which employees reciprocate with greater effort and engagement (Blau, 1964; Cropanzano et al., 2007). Self-determination theory specifies a mechanism for this expectation: fair procedures and respectful treatment support the basic needs for autonomy, competence, and relatedness on which autonomous motivation depends (Deci et al., 2017; Ryan & Deci, 2000). When employees judge decision processes to be consistent and their treatment to be respectful, the conditions for internalized, self-directed effort are more likely to be met, and meta-analytic evidence linking justice perceptions to performance-related outcomes is consistent with such a relationship (Colquitt et al., 2001). In ground handling, where shift work and time pressure are constant, employees encounter these fairness cues daily, so a direct relationship with motivation is expected. The first hypothesis was therefore formulated as follows:

H1: There is a significant relationship between organizational justice perception and job motivation among ground handling workers.

The link between justice and satisfaction is among the most firmly established in organizational research. Equity theory predicts that perceived fairness in the exchange of inputs and outcomes reduces the tension that erodes positive job attitudes (Adams, 1965), and two independent meta-analyses report positive and substantial relationships between all justice dimensions and job satisfaction (Cohen-Charash & Spector, 2001; Colquitt et al., 2001). Evidence from aviation and adjacent service settings points in the same direction, with justice repeatedly identified as a principal antecedent of satisfaction among airline and civil aviation employees (Ertemsir et al., 2024; Lee, 2011; Okan & Bayraktar, 2022). Because ground handling

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combines standardized pay structures with highly visible day-to-day processes, fairness of procedure and treatment can be expected to weigh heavily on how employees evaluate their jobs. Accordingly:

H2: There is a significant relationship between organizational justice perception and job satisfaction among ground handling workers.

Satisfaction and motivation are also closely connected in theory. In Herzberg's two-factor account, the motivators that generate satisfaction, such as achievement, recognition, and responsibility, are the same forces that energize effort, whereas hygiene factors mainly prevent dissatisfaction (Herzberg et al., 1959). Cross-lagged meta-analytic work confirms a stable motivational effect on performance relevant outcomes (Wang et al., 2024), and satisfaction and motivation are treated as closely coupled job attitudes in reviews of the field (Judge & Kammeyer-Mueller, 2012). A positive association between satisfaction and motivation was therefore expected in the present sample:

H3: There is a significant relationship between job satisfaction and job motivation among ground handling workers.

Finally, each construct in this study is multidimensional: justice comprises distributive, procedural, and interactional dimensions, while satisfaction and motivation each comprise intrinsic and extrinsic dimensions. The relationships proposed above were therefore expected to hold not only for total scores but also across subdimensions. Self-determination theory also suggests a pattern within these relationships: procedural and interactional justice, which relate most directly to the needs for autonomy and relatedness, should be more strongly associated with intrinsic outcomes, whereas distributive justice should be more closely associated with extrinsic outcomes (Deci et al., 2017). The final hypothesis was formulated as follows:

H4: Organizational justice perception, job satisfaction, and job motivation are jointly and positively interrelated, including at the level of their subdimensions.

Method

Design, Population, and Sample

The study employed a cross-sectional survey design. The population consisted of the 4,082 personnel employed in the operations, passenger services, and ramp departments of a private ground handling company operating at an airport in Türkiye at the time of data collection. From this population 347 employees were selected by random sampling, a sampling fraction of 8.5%, and the questionnaire was administered in person at the workplace. Because ground handling operates continuously, administration was spread across shifts and across the three departments so that no single working pattern or organizational unit would be over-represented.

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Participants were 347 employees (147 women, 42.4%; 200 men, 57.6%): 99 from operations (28.5%), 137 from passenger services (39.5%), and 111 from ramp services (32.0%). The sample was young and relatively junior. Just over a third (34.6%) were aged 18 to 24 and a further 33.4% were aged 25 to 32; 58.8% reported one to five years of professional seniority. Educational attainment was dominated by associate (41.8%) and bachelor degrees (32.6%), and 76.4% of participants worked full time. With 347 respondents the sample exceeds the 320 cases required to detect a correlation of r = .20 with power of .95 at an alpha level of .05 in a two-tailed test, so the analyses were not underpowered for the effects of interest.

Instruments

Organizational justice was measured with the 20-item Organizational Justice Scale developed by Niehoff and Moorman (1993) and in the Turkish version used by Örücü and Özafşarlıoğlu (2013), covering distributive, procedural, and interactional justice on a five-point Likert format. Job satisfaction was measured with the 20-item short form of the Minnesota Satisfaction Questionnaire (Weiss et al., 1967), which yields intrinsic, extrinsic, and general satisfaction scores. Job motivation was measured with the 24-item scale developed by Mottaz (1985) and adapted into Turkish by Ertan (2008), covering intrinsic and extrinsic motivation. Internal consistency in the present sample was high for every scale and subdimension, with Cronbach's alpha values ranging from .848 to .948 (Table 1).

Procedure

Questionnaires were administered in Turkish at the workplace, together with a short personal information form covering gender, age group, education level, professional seniority, working type, and department. Participation was voluntary and anonymous; no identifying information was collected, and employees were informed that responses would be used solely for research purposes and would not be shared with the company in any individually attributable form. Given the shift structure of ground handling work, data collection was spread across shifts and departments to avoid over-representing any single working pattern.

Several of the procedural remedies recommended for limiting common method bias were present in this design (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003; Podsakoff, MacKenzie, & Podsakoff, 2012). Respondent anonymity was protected and no identifying information was collected, which reduces evaluation apprehension and the incentive to answer in a socially desirable manner. Employees were informed that their responses would not be made available to the company in any individually attributable form. The three constructs were measured with separate published instruments, each carrying its own instructions and item wording, which introduces a psychological separation between the predictor and criterion measures, and no item contributed to more than one scale. A post hoc Harman single factor test was not treated as decisive, since that procedure is now

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widely regarded as insensitive to the levels of method variance that actually distort estimates (Fuller, Simmering, Atinc, Atinc, & Babin, 2016). The correlation matrix itself is more informative on this point. A dominant method factor would raise all coefficients toward a common level, whereas the observed values range from .469 to .768 and vary systematically in the direction theory predicts, with the lowest value falling exactly where self-determination theory expects the weakest link. A differentiated pattern of this kind is difficult to produce by shared method variance alone. Common method bias cannot be excluded, and its possible influence on the absolute magnitude of the coefficients is noted among the limitations.

Data Analysis

Analyses were conducted in SPSS 25.0. Kolmogorov–Smirnov tests indicated significant departures from normality for all scale scores ($p < .05$), so non-parametric procedures were used throughout: Mann–Whitney U tests for gender and working type, Kruskal–Wallis H tests for age group, education level, professional seniority, and department, and Spearman rank correlations for the hypothesized relationships. Effect sizes were computed for every inferential test. For the Mann–Whitney comparisons the rank correlation r was obtained by dividing the standardized test statistic by the square root of the sample size and was interpreted against the conventional benchmarks of .10, .30, and .50 for small, medium, and large effects (Cohen, 1988; Field, 2018; Tomczak & Tomczak, 2014). For the Spearman correlations, 95% confidence intervals were obtained through the Fisher transformation and the squared coefficient was used to express shared variance.

Result and Discussion

Descriptive Findings

Table 1 presents reliability coefficients and descriptive statistics for all scales. Mean scores for every construct were above the scale midpoint, with intrinsic motivation the highest (M = 4.16) and distributive justice the lowest (M = 3.67).

Table 1. Reliability coefficients and descriptive statistics for the study variables (N = 347)

Scale	Cronbach's α	M	SD
Interactional justice	.896	3.93	0.83
Procedural justice	.899	3.83	0.83
Distributive justice	.851	3.67	0.87
Organizational justice (total)	.948	3.83	0.77
Intrinsic satisfaction	.886	3.99	0.60
Extrinsic satisfaction	.848	3.83	0.68
Job satisfaction (general)	.925	3.92	0.60
Intrinsic motivation	.858	4.16	0.63
Extrinsic motivation	.877	3.91	0.61

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Scale	Cronbach's α	M	SD
Job motivation (general)	.919	3.99	0.58

Source: Authors' calculations based on the survey data.

Demographic Comparisons

Gender was the only demographic variable associated with justice perceptions (Table 2). Women scored significantly higher than men on procedural justice and on total organizational justice, while interactional and distributive justice did not differ. Both differences were small by conventional standards (procedural justice r = .12, total justice r = .11), which places them at the threshold of practical relevance: large enough to justify a department level review of procedural consistency, but too small to describe as a substantial fairness gap between women and men. Job satisfaction differed only by education level, with general satisfaction among associate degree holders exceeding that of bachelor degree holders ($p < .05$) and no differences by gender, age, seniority, working type, or department. Job motivation showed no significant differences across any demographic variable ($p > .05$), which suggests that motivation in this workforce is shaped more by shared job conditions than by demographic characteristics.

Table 2. Mann–Whitney U comparison of organizational justice scores by gender

Scale	Gender	n	M	SD	U	p	r
Interactional justice	Female	147	3.98	0.84	13532.0	.203	.07
	Male	200	3.89	0.82			
Procedural justice	Female	147	3.95	0.76	12695.0	.029*	.12
	Male	200	3.74	0.87			
Distributive justice	Female	147	3.72	0.84	13902.5	.384	.05
	Male	200	3.64	0.89			
Organizational justice (total)	Female	147	3.91	0.75	12887.0	.049*	.11
	Male	200	3.77	0.78			

*$p < .05$. *r is the rank correlation effect size, computed as the standardized test statistic divided by the square root of N; values of .10, .30, and .50 correspond to small, medium, and large effects (Cohen, 1988; Field, 2018).*

Source: Authors' calculations based on the survey data.

Relationships Among Justice, Satisfaction, and Motivation

Spearman correlations are reported in Table 3. All coefficients were positive and significant at the .01 level, supporting H1 through H4. Total organizational justice correlated strongly with general job satisfaction (r = .768, 95% CI [.718, .810]) and with general job motivation (r = .668, 95% CI [.601, .725]), and general satisfaction correlated with general motivation (r = .717, 95% CI [.658, .767]). At the subdimension level two patterns stand out. First, procedural (r = .706) and

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interactional justice (r = .705) were more strongly associated with general satisfaction than distributive justice (r = .679), and the gap widened for motivation: the weakest coefficient in the entire matrix was that between distributive justice and intrinsic motivation (r = .469, 95% CI [.377, .552]). Second, the satisfaction and motivation subdimensions paired along intrinsic and extrinsic lines, with extrinsic satisfaction most strongly related to extrinsic motivation (r = .711) and intrinsic satisfaction to intrinsic motivation (r = .636). Expressed as shared variance, organizational justice accounts for 59% of the variance in general job satisfaction and 45% of the variance in general job motivation, while the two outcomes share 51% of their variance. These magnitudes exceed the corrected population estimates reported in the justice meta-analyses (Cohen-Charash & Spector, 2001; Colquitt et al., 2001), which is consistent with some degree of common method inflation and is a reason for treating the absolute size of the coefficients with caution while treating their ordering as the more secure result.

Table 3. Spearman correlations between justice, satisfaction, and motivation scores (N = 347)

Variable	Intr. sat.	Extr. sat.	Gen. sat.	Intr. mot.	Extr. mot.	Gen. mot.
Interactional justice	.660**	.673**	.705**	.614**	.610**	.648**
Procedural justice	.657**	.686**	.706**	.556**	.616**	.633**
Distributive justice	.624**	.665**	.679**	.469**	.550**	.561**
Organizational justice (total)	.714**	.741**	.768**	.603**	.640**	.668**
Intrinsic satisfaction	—	—	—	.636**	.614**	.656**
Extrinsic satisfaction	—	—	—	.565**	.711**	.707**
Job satisfaction (general)	—	—	—	.644**	.691**	.717**

***p < .01. Confidence intervals for the coefficients discussed in the text are reported there. Coefficients are not independent, since they are computed on the same respondents.*
Source: Authors' calculations based on the survey data.

Discussion

The descriptive results deserve brief comment before the correlations are considered. All attitude scores in this sample were favorable, which cautions against attributing the sector's turnover problem to uniformly dissatisfied workers. A more plausible interpretation, consistent with the seniority profile of the sample (58.8% of participants had five years of experience or less), is that attrition operates selectively: employees who remain report reasonably positive attitudes, while dissatisfied employees leave early and are therefore absent from any cross-sectional sample. This potential survivorship effect does not weaken the correlational findings, but it means that the favorable mean scores should not be interpreted as evidence that retention pressures have eased.

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The strong association between justice and satisfaction is consistent with social exchange theory. Fair procedures and respectful treatment are experienced daily in ground handling, for example in shift allocation, in supervisory communication during irregular operations, and in the consistent handling of errors, and employees appear to reciprocate such treatment with favorable evaluations of the job as a whole (Blau, 1964; Colquitt & Rodell, 2011). The relative weakness of distributive justice is consistent with findings reported since Lee (2011) and the meta-analyses of Colquitt et al. (2001) and Cohen-Charash and Spector (2001): outcome comparisons arise intermittently, mainly at pay reviews and promotion decisions, whereas procedures and interpersonal treatment are experienced continuously. In an operation where compensation structures are largely standardized across the workforce, how decisions are made may carry more information about the organization than the outcomes themselves.

The motivation findings support this interpretation further. Self-determination theory predicts that conditions supporting autonomy, competence, and relatedness foster autonomous motivation, while purely outcome-based signals relate mainly to controlled motivation (Deci et al., 2017; Ryan & Deci, 2000). The correlation matrix shows a similar pattern: distributive justice had its weakest link with intrinsic motivation ($r = .469$) but a stronger link with extrinsic motivation ($r = .550$), whereas interactional justice, the dimension closest to relatedness, showed the strongest association with intrinsic motivation ($r = .614$). Fair interpersonal treatment therefore appears to function as one of the channels through which the psychological needs underlying sustained motivation are met.

The association between satisfaction and motivation was strong and consistent with the close coupling of these attitudes reported in the wider literature (Judge & Kammeyer-Mueller, 2012; Wang et al., 2024). The pairing of intrinsic with intrinsic and extrinsic with extrinsic is consistent with Herzberg's two-factor framework: satisfaction with the work itself accompanies intrinsically driven motivation, while satisfaction with pay, supervision, and conditions accompanies extrinsically driven motivation (Herzberg et al., 1959). In practical terms, improvements in hygiene factors alone are unlikely to build the autonomous motivation on which high-reliability operations depend.

The gender difference in procedural justice should be interpreted with caution. Women in this sample perceived procedures as fairer than men did. One possible explanation is compositional: female employees are concentrated in passenger services while ramp operations are predominantly male, and procedural transparency may genuinely differ between these settings. An alternative explanation is that men and women weigh procedural cues differently, which would be consistent with documented gender differences in the sources of work attitudes (Clark, 1997). The present design cannot distinguish between these explanations, so the finding calls for department-level follow-up before firm conclusions are drawn. A similar caution applies to the education finding: the higher satisfaction of

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associate-degree holders relative to bachelor's-degree holders is compatible with an expectations-based explanation, in which university graduates hold career aspirations that ground handling roles do not fully meet, but this interpretation also requires direct testing.

Taken together, the results place ground handling alongside the aviation samples of Okan and Bayraktar (2022), Ertemsir et al. (2024), and Satardien et al. (2019): fairness perceptions are closely related to the attitudes on which retention depends. What the present sample adds is a setting in which the compression of outcome variance makes the ordering of the dimensions unusually visible.

Theoretical Implications

Three theoretical implications follow. The first concerns the specification rather than the confirmation of justice theory. Social exchange accounts treat fairness as a single currency of reciprocation, yet the coefficients reported here are not interchangeable across dimensions. The gap between the weakest and the strongest association between a justice dimension and intrinsic motivation is .145 in correlation units, and the ordering follows the needs based logic of self-determination theory rather than the undifferentiated exchange logic usually invoked. Where the two accounts diverge, these data favor the more differentiated one, which is an argument for modeling justice dimensions separately in operational settings rather than aggregating them into a total score.

The second implication concerns boundary conditions. Distributive justice was the weakest correlate throughout, and the most plausible reason is structural rather than psychological. In a workforce whose pay grades, shift premiums, and benefits are set collectively and vary little between individuals doing the same job, outcome comparisons have little to discriminate. Equity theory presumes that employees can observe meaningful variation in the ratio of inputs to outcomes among referent others (Adams, 1965), and that presumption is only weakly satisfied here. Low outcome variance is therefore proposed as a boundary condition on the explanatory reach of distributive justice, and it is a condition that characterizes much of the operational workforce in aviation, logistics, and other regulated service industries, rather than the professional samples on which the theory was largely built.

The third implication is methodological and concerns how justice research should read high turnover populations. If dissatisfied employees leave early, the surviving sample will show favorable attitude means alongside strong associations between justice and those attitudes, which is precisely the pattern observed here. Cross-sectional justice studies in such populations may therefore underestimate the prevalence of unfairness perceptions while estimating their consequences correctly, and the two quantities should not be inferred from one another. Attrition is better treated as a substantive feature of the design in these settings than as a limitation acknowledged at the end.

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Practical and Policy Implications

For ground handling employers the operative finding is that the fairness levers most strongly associated with employee attitudes are also the ones most directly under management control and least dependent on budget. Shift allocation rules, the explanation offered when an operational decision goes against an employee, and consistency in how errors on the ramp are handled are all matters of procedure and interpersonal treatment. Because the gender difference observed here concerned procedures rather than outcomes or treatment, the targeted response is a review of shift allocation, task assignment, and disciplinary practice for consistency across groups and departments, rather than a general statement of equal treatment. Monitoring fairness perceptions at department level, particularly between ramp and passenger facing units, would allow such interventions to be directed where procedural climates diverge.

Beyond the individual employer, the results carry implications for how the sector is regulated. Safety management systems established under Annex 19 to the Chicago Convention require service providers to monitor safety performance and to promote a positive safety culture (International Civil Aviation Organization, 2016), and industry audit programs for ground operations, of which the IATA Safety Audit for Ground Operations is the most widely applied, examine procedures, training, and supervision in detail while treating the organizational climate in which those procedures are enacted as largely outside their scope. The associations reported here suggest that indicators of procedural and interactional fairness would sit naturally alongside existing safety culture measures, because the supervisory behaviors that shape fairness perceptions are the same ones that determine whether procedures are followed when an aircraft is running late. National civil aviation authorities that license ground handling providers could require a small number of fairness related items within the safety culture surveys already conducted under safety management provisions, at negligible additional cost and with a direct line to the operational risk picture.

A second policy point concerns procurement. Ground handling is typically awarded at airports through concession and tender processes in which price is the dominant criterion (Schmidberger et al., 2009), and the resulting margin pressure is transmitted to staffing levels, shift patterns, and pay structures. Airport operators and the authorities that design these processes therefore influence, indirectly but materially, the conditions under which the fairness perceptions examined here are formed. Including workforce stability and working condition criteria in ground handling tenders would align procurement policy with the operational continuity that the same authorities depend on. The social implications extend further. Ground handling employs a young and predominantly junior workforce in shift based roles, and the gendered division between ramp and passenger facing units observed in this sample means that any procedural inconsistency between those units is also, in effect, a question of equality at work.

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Conclusion

This study asked whether organizational justice perception is related to job motivation and job satisfaction among ground handling workers, and the findings support an affirmative answer: all hypothesized relationships were positive and significant, with procedural and interactional justice more strongly tied to both outcomes than distributive justice, and with satisfaction and motivation reinforcing one another along intrinsic and extrinsic lines. Justice perceptions differed by gender, satisfaction by education level, and motivation not at all across demographic groups.

For ground handling organizations facing chronic turnover the practical implication is that retention efforts focused exclusively on pay address the justice dimension with the weakest observed associations, while the procedural and interpersonal practices that showed the strongest associations are also the ones management can change without additional expenditure. Since workload and procedural climates plausibly vary with airport size and departmental structure, human resource policy should not assume that a fairness climate measured at company level holds uniformly across units, and ramp operations in particular warrant separate attention.

This study has several limitations. The data come from a single company at a single airport, were collected at one point in time, and rely entirely on self-report, so the correlational design supports no causal claims. Although procedural remedies against common method bias were built into the data collection, and although the differentiated pattern of coefficients argues against a dominant method factor, the absolute magnitude of the associations may still be inflated by shared method variance; the ordering of the dimensions is the more secure result. Future research should extend the design across airports of different sizes and across national contexts, so that the cultural moderation reported by Shao et al. (2013) can be tested directly in this occupational group. Longitudinal or multi-source measurement would separate justice perceptions in time from their outcomes and would permit the reciprocal relationship between satisfaction and motivation to be estimated rather than assumed. The mechanisms suggested here also invite direct testing, with trust in management and basic psychological need satisfaction the most promising candidates for mediation analysis. Comparative work on procedural climates in ramp versus passenger services would clarify the gender finding, and a design that captures leavers as well as stayers would test the attrition selection argument advanced above.

Declarations

Ethical considerations. Participation was voluntary and anonymous, informed consent was obtained from all participants, and no identifying information was collected.

Conflict of interest. The authors declare no conflict of interest.

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Data availability. The data supporting the findings of this study are available from the corresponding author upon reasonable request.

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References

Adams, J. S. (1965). Inequity in social exchange. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 2, pp. 267–299). New York, NY: Academic Press.

Aryee, S., Budhwar, P. S., & Chen, Z. X. (2002). Trust as a mediator of the relationship between organizational justice and work outcomes: Test of a social exchange model. *Journal of Organizational Behavior, 23*(3), 267–285.

Bies, R. J., & Moag, J. S. (1986). Interactional justice: Communication criteria of fairness. In R. J. Lewicki, B. H. Sheppard, & M. H. Bazerman (Eds.), *Research on negotiations in organizations* (Vol. 1, pp. 43–55). Greenwich, CT: JAI Press.

Blau, P. M. (1964). *Exchange and power in social life.* New York, NY: John Wiley & Sons.

Brown, M. E., Treviño, L. K., & Harrison, D. A. (2005). Ethical leadership: A social learning perspective for construct development and testing. *Organizational Behavior and Human Decision Processes, 97*(2), 117–134.

Clark, A. E. (1997). Job satisfaction and gender: Why are women so happy at work? *Labour Economics, 4*(4), 341–372.

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum Associates.

Cohen-Charash, Y., & Spector, P. E. (2001). The role of justice in organizations: A meta-analysis. *Organizational Behavior and Human Decision Processes, 86*(2), 278–321.

Colquitt, J. A. (2001). On the dimensionality of organizational justice: A construct validation of a measure. *Journal of Applied Psychology, 86*(3), 386–400.

Colquitt, J. A., Conlon, D. E., Wesson, M. J., Porter, C. O. L. H., & Ng, K. Y. (2001). Justice at the millennium: A meta-analytic review of 25 years of organizational justice research. *Journal of Applied Psychology, 86*(3), 425–445.

Colquitt, J. A., Scott, B. A., Rodell, J. B., Long, D. M., Zapata, C. P., Conlon, D. E., & Wesson, M. J. (2013). Justice at the millennium, a decade later: A meta-analytic test of social exchange and affect-based perspectives. *Journal of Applied Psychology, 98*(2), 199–236.

Colquitt, J. A., & Rodell, J. B. (2011). Justice, trust, and trustworthiness: A longitudinal analysis integrating three theoretical perspectives. *Academy of Management Journal, 54*(6), 1183–1206.

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Cropanzano, R., Bowen, D. E., & Gilliland, S. W. (2007). The management of organizational justice. *Academy of Management Perspectives, 21*(4), 34–48.
Ćulibrk, J., Delić, M., Mitrović, S., & Ćulibrk, D. (2018). Job satisfaction, organizational commitment and job involvement: The mediating role of job involvement. *Frontiers in Psychology, 9,* 132.
Deci, E. L., Olafsen, A. H., & Ryan, R. M. (2017). Self-determination theory in work organizations: The state of a science. *Annual Review of Organizational Psychology and Organizational Behavior, 4,* 19–43.
Ertan, H. (2008). *Örgütsel bağlılık, iş motivasyonu ve iş performansı arasındaki ilişki: Antalya'da beş yıldızlı otel işletmelerinde bir inceleme* (Unpublished doctoral dissertation). Afyon Kocatepe University, Afyonkarahisar, Turkey.
Ertemsir, E., Bal, Y., Demirhan, A., & Kökalan, Ö. (2024). The moderating role of workplace spirituality on the effect of organizational justice on job satisfaction. *Frontiers in Psychology, 15,* 1360913.
Field, A. (2018). *Discovering statistics using IBM SPSS Statistics* (5th ed.). London, England: SAGE Publications.
Fuller, C. M., Simmering, M. J., Atinc, G., Atinc, Y., & Babin, B. J. (2016). Common methods variance detection in business research. *Journal of Business Research, 69*(8), 3192–3198.
Greenberg, J. (1990). Organizational justice: Yesterday, today, and tomorrow. *Journal of Management, 16*(2), 399–432.
Herzberg, F., Mausner, B., & Snyderman, B. B. (1959). *The motivation to work.* New York, NY: John Wiley & Sons.
International Civil Aviation Organization. (2016). *Annex 19 to the Convention on International Civil Aviation: Safety management* (2nd ed.). Montréal, Canada: ICAO.
Judge, T. A., & Kammeyer-Mueller, J. D. (2012). Job attitudes. *Annual Review of Psychology, 63,* 341–367.
Kovynyov, I., & Mikut, R. (2019). Digital technologies in airport ground operations. *NETNOMICS: Economic Research and Electronic Networking, 20,* 1–30.
Lee, S. (2011). Organizational justice and employee work attitudes: The federal case. *The American Review of Public Administration, 41*(2), 185–204.
Leventhal, G. S. (1980). What should be done with equity theory? In K. J. Gergen, M. S. Greenberg, & R. H. Willis (Eds.), *Social exchange: Advances in theory and research* (pp. 27–55). New York, NY: Plenum Press.
Locke, E. A. (1976). The nature and causes of job satisfaction. In M. D. Dunnette (Ed.), *Handbook of industrial and organizational psychology* (pp. 1297–1349). Chicago, IL: Rand McNally.
Mottaz, C. J. (1985). The relative importance of intrinsic and extrinsic rewards as determinants of work satisfaction. *The Sociological Quarterly, 26*(3), 365–385.

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Niehoff, B. P., & Moorman, R. H. (1993). Justice as a mediator of the relationship between methods of monitoring and organizational citizenship behavior. *Academy of Management Journal, 36*(3), 527–556.

Okan, E., & Bayraktar, C. A. (2022). Analysis of the relationship between organizational justice and job satisfaction in the airline industry. In *Industrial engineering in the Internet-of-Things world: Selected papers from the Virtual Global Joint Conference on Industrial Engineering and Its Application Areas, GJCIE 2020* (pp. 361–376). Cham, Switzerland: Springer.

Örücü, E., & Özafşarlıoğlu, S. (2013). Örgütsel adaletin çalışanların işten ayrılma niyetine etkisi: Güney Afrika Cumhuriyetinde bir uygulama [The effect of organizational justice on employees' turnover intention: An application in the Republic of South Africa]. *Mustafa Kemal Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, 10*(23), 335–358.

Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology, 88*(5), 879–903.

Podsakoff, P. M., MacKenzie, S. B., & Podsakoff, N. P. (2012). Sources of method bias in social science research and recommendations on how to control it. *Annual Review of Psychology, 63,* 539–569.

Ryan, R. M., & Deci, E. L. (2000). Intrinsic and extrinsic motivations: Classic definitions and new directions. *Contemporary Educational Psychology, 25*(1), 54–67.

Satardien, M., Jano, R., & Mahembe, B. (2019). The relationship between perceived organisational support, organisational commitment and turnover intention among employees in a selected organization in the aviation industry. *SA Journal of Human Resource Management, 17,* a1123.

Schmidberger, S., Bals, L., Hartmann, E., & Jahns, C. (2009). Ground handling services at European hub airports: Development of a performance measurement system for benchmarking. *International Journal of Production Economics, 117*(1), 104–116.

Shao, R., Rupp, D. E., Skarlicki, D. P., & Jones, K. S. (2013). Employee justice across cultures: A meta-analytic review. *Journal of Management, 39*(1), 263–301.

Spector, P. E. (1997). *Job satisfaction: Application, assessment, causes, and consequences.* Thousand Oaks, CA: SAGE Publications.

Stinglhamber, F., Caesens, G., Nguyen, N., & Demoulin, S. (2023). Organizational culture, justice, dehumanization and affective commitment in French employees: A serial mediation model. *International Journal of Environmental Research and Public Health, 20*(15), 6543.

Thibaut, J., & Walker, L. (1975). *Procedural justice: A psychological analysis.* Hillsdale, NJ: Lawrence Erlbaum.

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Tomczak, M., & Tomczak, E. (2014). The need to report effect size estimates revisited: An overview of some recommended measures of effect size. *Trends in Sport Sciences, 1*(21), 19–25.

Tsaousoglou, K., Koutoulas, D., & Stavrinoudis, T. (2022). Personality and commitment as predictors of turnover intentions among Greek employees in the lodging industry. *European Journal of Tourism Research, 31,* 3111.

Wang, N., Luan, Y., & Ma, R. (2024). Detecting causal relationships between work motivation and job performance: A meta-analytic review of cross-lagged studies. *Humanities and Social Sciences Communications, 11,* 595.

Weiss, D. J., Dawis, R. V., England, G. W., & Lofquist, L. H. (1967). *Manual for the Minnesota Satisfaction Questionnaire.* Minneapolis, MN: University of Minnesota, Industrial Relations Center.

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