

DISTRIBUTIVE JUSTICE'S DIRECT AND INDIRECT LINKAGES TO TURNOVER INTENTION: A STRUCTURAL EQUATION MODELLING APPROACH

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ABSTRACT

This study examines the factors that influence turnover intention among public doctors in Malaysia, which is crucial for achieving universal health coverage. Drawing from Equity Theory, Social Exchange Theory, and the concept of reciprocity, a conceptual model is proposed in which distributive justice is hypothesised to affect turnover intention both directly and indirectly through the mediating of organisational citizenship behaviour. Furthermore, the study proposes that positive reciprocity moderates the relationship between distributive justice and organisational citizenship behaviour, while negative reciprocity moderates the link between distributive justice and turnover intention. A cross-sectional survey was conducted among 380 public doctors selected through proportionate stratified random sampling in the Klang Valley region of Malaysia, using a self-administered questionnaire survey. Structural equation modelling revealed that distributive justice inversely impacts turnover intention both directly and indirectly through the partial mediation of organisational citizenship behaviour. Additionally, positive reciprocity strengthened the positive association between distributive justice and organisational citizenship behaviour, while negative reciprocity did not significantly moderate the distributive justice-turnover intention relationship. The findings underscore the importance of fostering distributive justice, organisational citizenship behaviour, and positive reciprocity norms to mitigate turnover intention among Malaysian public doctors, thereby supporting broader efforts to achieve universal health coverage.

Keywords: Distributive justice, turnover intention, organisational citizenship behaviour, positive reciprocity, negative reciprocity, public doctors

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1. INTRODUCTION

The Millennium Development Goals (MDGs), introduced in 2000, reflected the United Nations' (UN) commitment to achieving universal health coverage (UHC), aiming to deliver healthcare at the "highest attainable standard of physical and mental health" (Chisholm & Evans, 2010, p. 1). In 2015, the Sustainable Development Goals (SDGs) expanded upon the MDGs with more specific objectives related to UHC. These goals sought to improve overall health levels, enhance the distribution of health services, and ensure equitable access through stronger primary healthcare systems (Tangcharoensathien et al., 2015). Achieving UHC requires an adequate, well-distributed, high-performing health workforce (Tangcharoensathien et al., 2015). As such, prioritising strengthening human resources for health is vital to support effective healthcare delivery. This involves strategic efforts to retain skilled health professionals while addressing imbalances in workforce distribution across regions and healthcare sectors.

Public doctors in Malaysia play an essential role in achieving UHC. However, their migration, particularly to the private sector, has led to shortages and brain drain within the public healthcare system. This challenge heavily burdens the Ministry of Health (MOH), which handles approximately 70% of the nation's acute health cases while employing only about 30% of the country's medical specialists (Ahmad, 2019). Such an imbalance hampers the public sector's ability to deliver equitable healthcare and meet UHC standards. Job dissatisfaction is a major factor driving the turnover of public doctors (Dulajis et al., 2022; Mohd Ramlan et al., 2014). These authors highlight the sense of injustice in benefits, incentives, promotions, training, and work conditions, all of which undermine satisfaction. Additionally, public doctors have reported frustration over excessive workloads, lack of recognition, and perceived disparities between their contributions and the rewards received (Roslan et al., 2014).

Existing literature indicates that Malaysian public doctors have expressed dissatisfaction with the governance of employee benefits, incentives, career development, training opportunities, working conditions, and workload distribution. Additionally, a lack of recognition and a perceived imbalance between effort and rewards suggest a disconnect between doctors' contributions and the outcomes they receive. These concerns align with the concept of organisational justice (OJ) introduced by Greenberg (1990) and Moorman (1991), particularly distributive justice (DJ), as operationalised by Niehoff and Moorman (1993) and Colquitt and Rodell (2015). However, the link between DJ and TI among Malaysian public doctors remains unexplored, as no empirical evidence was found to describe their interconnectedness in this professional group. This study thus aims to address this gap within the local public healthcare context.

Mamud et al., (2023) found that justice practices significantly influence organisational citizenship behaviour (OCB), highlighting OCB as a key factor in retaining healthcare employees in Malaysian public hospitals. Other studies support that DJ can foster extra-role behaviours (Fiaz et al., 2018) and lower TI among healthcare professionals (Chen et al., 2022; Choi & Shin, 2022; Medina-Craven & Ostermeier, 2021; Mengstie, 2020; Yang et al., 2021). These findings indicate a meaningful relationship between DJ, OCB, and TI. Accordingly, this study explores OCB as a mediating variable, seeking to conceptualise those variables as a cohesive employee retention framework. Drawing on the reciprocity principle in Social Exchange Theory (Blau, 1964), and research suggesting OCB and TI are justice-driven reciprocal behaviours (Cropanzano

et al., 2016; Cropanzano & Mitchell, 2005; Huang et al., 2019), this study examines the potential moderating role of reciprocity norms in shaping the relationships between DJ, OCB, and TI.

2. LITERATURE REVIEW

2.1 Underpinning Theories

Adams (1965) introduced the Equity Theory, which explains how individuals assess fairness in the distribution of outcomes relative to their contributions. The core of this theory lies in evaluating fairness by comparing one's input-to-outcome ratio with that of peers (Adams, 1965). Scholarly investigations underscore the pivotal role of perceived justice, rooted in Equity Theory, in shaping OCB (Cropanzano et al., 2016) and attenuating intentions to leave (Chen et al., 2022; Choi & Shin, 2022; Medina-Craven & Ostermeier, 2021; Mengstie, 2020). Meanwhile, the Social Exchange Theory (Blau, 1964) constitutes a highly relevant framework for understanding individual behaviours within organisational contexts. Reciprocity emerges as a fundamental principle of the Social Exchange Theory (Cropanzano & Mitchell, 2005; Harris et al., 2018; Huang et al., 2019), positing that fair treatment from a given party should elicit favourable attitudes and behaviours in response. This theory suggests that a fair and rewarding interpersonal relationship fosters trust and cultivates a propensity to reciprocate with acts of goodwill (Blau, 1964). These gestures may manifest as extra-role behaviours in the form of OCB (Cropanzano et al., 2016; Cropanzano & Mitchell, 2005) and reduced intentions to leave the organisation (Huang et al., 2019).

2.2 Turnover Intention

Employee turnover can occur voluntarily through resignation or involuntarily through termination (Al Shbail & Al Shbail, 2020). Within healthcare, persistent turnover is particularly detrimental, contributing to workforce shortages, compromised care quality (Perreira et al., 2018), higher patient mortality (Zahednezhad et al., 2021), and unsustainable service delivery (Hwang & Yi, 2022). It can also hinder therapeutic relationships, delay recovery for patients requiring long-term care (Hwang & Yi, 2022), and erode public trust over time (Harris et al., 2018). Therefore, retaining skilled and experienced healthcare workers is vital for quality care.

Employee retention is vulnerable to turnover intention (TI), which represents the final stage of employees' conscious withdrawal cognitions, expectations to leave, and intentions to seek alternative employment (Tett & Meyer, 1993). Given the strong link between behavioural intention and actual behaviour as conceptualised by the Theory of Planned Behaviour (Ajzen, 1985), TI is widely regarded as a reliable predictor of actual turnover (Cohen et al., 2016; Wen et al., 2018; Zahednezhad et al., 2021). A review of related literature identifies distributive injustice as one of the key underlying issues contributing to increased TI.

2.3 Distributive Justice: A Dimension of Justice Triad in Organisation

Rooted in Adams' (1965) Equity Theory, DJ was the foundational construct in shaping the broader OJ framework. It pertains to how employees evaluate the fairness, impartiality, and objectivity of management's decisions by comparing their input-to-outcome ratio with others

(Greenberg, 1990; Moorman, 1991). These outcomes include remuneration, rewards, workloads, performance evaluations, incentives, benefits, and recognition (Niehoff & Moorman, 1993; Colquitt & Rodell, 2015). Employees assess whether these allocations reflect principles of equity, equality, or need, as Deutsch (1975) and Leventhal (1980) proposed. When DJ is perceived to be upheld, it promotes a sense of fairness and satisfaction. Conversely, perceived inequities can trigger dissatisfaction and negative work behaviours. As part of the OJ triad, other than procedural and interactional justice (Greenberg, 1990; Moorman, 1991), DJ is vital in shaping employees' attitudes, motivation, and retention.

2.4 Organisational Citizenship Behaviour

OCB denotes voluntary actions performed beyond formal job specifications and not tied to any formal reward system benefiting individuals and organisations (Bateman & Organ, 1983; Organ, 1988; Smith et al., 1983). Originally, OCB included altruism and general compliance (Smith et al., 1983), which evolved into the 'Big Five Dimensions': altruism, conscientiousness, courtesy, sportsmanship, and civic virtue (Organ, 1988). Williams and Anderson (1991) later classified these behaviours into organisation-directed OCB (OCBO) and individual-directed OCB (OCBI). Customer-directed OCB (OCBC) has also been introduced, particularly in customer-focused settings (Lavee & Pindek, 2020; Ma et al., 2013). Contemporary models now conceptualise OCB as a three-dimensional construct encompassing OCBO, OCBI, and OCBC, thereby capturing the full range of discretionary behaviours across internal and external organisational contexts.

2.5 Personal Norm of Reciprocity

Reciprocity is defined as "a mutually gratifying pattern of exchanging goods and services" (Gouldner, 1960, p. 170). The personal norm of reciprocity (PNR) refers to an internalised moral obligation arising from a sense of duty or responsibility to respond to kindness or unfair treatment (Gouldner, 1960; Matejkowski et al., 2011; Perugini et al., 2003). This norm develops through repeated mutual exchanges and gradually becomes embedded in social behaviour (Matejkowski et al., 2011; Perugini et al., 2003; Cropanzano et al., 2016). Reciprocity can be expressed in two primary forms: positive reciprocity (PR) and negative reciprocity (NR). PR involves responding to kind or helpful behaviour with gratitude and prosocial actions, while NR reflects a tendency to retaliate or express anger in response to harmful or unjust treatment (Matejkowski et al., 2011; Neumann, 2019; Perugini et al., 2003). This signifies that individuals who internalise reciprocity norms reward fairness with kindness and respond to perceived injustice with hostile reciprocal reactions.

3. DEVELOPMENT OF HYPOTHESES

3.1 Relationship Between Distributive Justice and Turnover Intention

Regarding the relationship between DJ and TI, Chen et al., (2022) asserted that the perceived fair distribution of organisational outcomes could make hospital employees feel valued, fostering a heightened sense of psychological safety, team cohesion, and a reduced tendency to quit. Furthermore, employees' favourable perceptions of tangible outcomes from equitable resource allocation were significantly associated with lower TI (Medina-Craven & Ostermeier, 2021).

Conversely, an imbalance between contributions and outcomes has been linked to increased TI among healthcare workers (Mengstie, 2020). Similarly, employees who felt inadequately compensated or perceived low justice levels were likelier to express stronger intentions to leave (Choi & Shin, 2022), while the opposite was held under fair conditions. Building on these empirical findings and grounded in Equity Theory (Adams, 1965) and Social Exchange Theory (Blau, 1964), this study posits a possible significant inverse relationship between DJ and TI among Malaysian public doctors.

H1: DJ has a significant inverse direct effect on TI among public doctors.

3.2 Mediation Effect of OCB

Testing a mediation requires a significant relationship from the independent variable to the mediator and from the mediator to the dependent variable, regardless of the direct effect between the independent and dependent variables (Memon et al., 2018). Existing literature shows that introducing a mediating factor can influence the link between justice and TI. For instance, Huang et al., (2019) found that organisational support fully mediated the relationship, making an initially insignificant direct effect indirectly significant. Similarly, work engagement was identified as a partial mediator in the relationship between justice and TI (Cao et al., 2020). Suifan et al., (2017) demonstrated that job satisfaction fully mediated the relationship, while organisational commitment was a partial mediator. In particular, Chen et al., (2022) found that DJ influenced TI through physicians' organisational commitment. These findings suggest that the presence of a mediator might indirectly influence the linkage between DJ and TI.

Cropanzano et al., (2016) observed that justice and OCB had grown together, starting from the development of the OCB concept by Organ (1988), followed by later studies examining the association between both variables. A literature review provides an overview of a strong prediction and a substantial positive association between justice and OCB (Mamud et al., 2023). These insights align with the narrative of Social Exchange Theory (Blau, 1964) that a fair and rewarding mutual relationship entails trust and creates an obligation to reciprocate with gestures of goodwill. In parallel, OCB was discovered as a factor encouraging employees to stay longer (Shanker, 2018) and had an inverse direct effect on TI (Al Shbail & Al Shbail, 2020; Manoppo, 2020). These findings suggest that DJ, OCB, and TI have inter-linkages and potentially result in significant direct and mediation effects if tested among public doctors. Based on the literature reviewed and the theoretical foundations discussed, the present study proposes hypotheses to investigate the direct effect of DJ on OCB, the direct effect of OCB on TI, and the mediating role of OCB in the relationship between DJ and TI among public doctors.

The above theoretical foundation and empirical evidence suggest that DJ promotes OCB, reducing TI. This circumstance supports the theorisation of a mediating model involving the suggested variables. Thus, testing of OCB's mediation is theoretically justified.

H2: DJ has a significant positive direct effect on OCB among public doctors.

H3: OCB has a significant inverse direct effect on TI among public doctors.

H4: OCB mediates the relationship between DJ and TI among public doctors.

3.3 Moderation Effect of the Personal Norm of Reciprocity

Regarding the moderating variable's role in either weakening, reversing, or altering the nature of the relationship through its contingency effect, the inclusion of a moderator enhances research by extending the inquiry beyond identifying direct effects, thus offering insights into when and why these effects occur (Hair et al., 2018). Neumann (2019) asserted that PR or NR could effectively moderate the relationships between variables. Drawing from this argument, this study incorporates PR and NR to clarify how and under what conditions they may moderate the relationships between DJ and OCB, or between DJ and TI.

Zou et al., (2015) found that PR moderated the relationships between servant leadership and leader-member exchange and team-member exchange. Similarly, Cheng et al., (2021) reported that PR strengthened the positive relationship between family-supportive supervisor behaviour and felt obligation, with the effect being stronger among employees with high PR and weaker among those with low PR. PR has also shown a contingent moderating effect between positive predictors and negative behavioural outcomes. For instance, Umphress et al., (2010) discovered that the relationship between organisational identification and unethical pro-organisational behaviour was positively moderated by high PR and negatively by low PR. These findings confirm that varying levels of PR can lead to different outcomes, suggesting that the nature and strength of relationships between variables may change depending on PR. Building on this theoretical underpinning, the present study hypothesises that PR moderates the relationship between DJ and OCB, with stronger effects expected among individuals with higher PR.

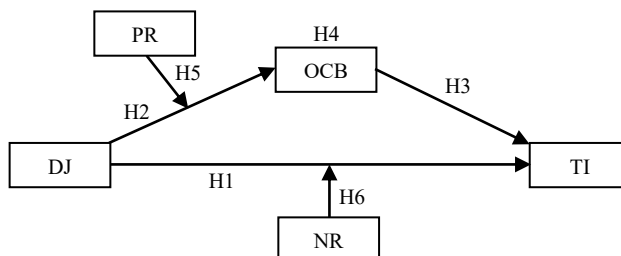
H5: PR moderates the positive relationship between DJ and OCB among public doctors, such that the relationship will be strengthened by high PR and weakened by low PR.

Earlier authors, such as Zhao et al., (2016) and Jahanzeb et al., (2019), found that NR intensified the effects of workplace ostracism and abusive supervision on knowledge-hiding behaviour. Similarly, Mitchell and Ambrose (2007) demonstrated that NR strengthened the positive relationship between abusive supervision and supervisor-directed deviance. These findings suggest that NR enhances the interaction between negative organisational behaviours. Furthermore, NR also amplified the adverse relationship between abusive supervision and employee creativity, showing its moderating effect even between contradictory behaviours (Jahanzeb et al., 2019). Across these studies, higher levels of NR were associated with stronger moderation effects, while lower levels had weaker effects (Jahanzeb et al., 2019; Mitchell & Ambrose, 2007; Zhao et al., 2016). Based on these insights, the present study hypothesises that NR will moderate the relationship between DJ and TI, with the strength of the inverse relationship expected to vary based on NR levels.

H6: NR moderates the negative relationship between DJ and TI among public doctors, such that the relationship will be strengthened by high NR and weakened by low NR.

The conceptual framework illustrated in Figure 1 was derived from the proposed hypotheses and guided our investigations.

Figure 1: Conceptual Framework



4. METHODOLOGY

4.1 The Study Context

Malaysia's public health sector faces a growing loss of doctors, particularly in the private sector. Prior studies have linked inequity to job dissatisfaction and increased turnover. However, the specific influence of DJ and OCB on TI among public doctors remains underexplored. This study aims to fill this gap, contributing context-specific insights into how these factors influence TI within Malaysia's collectivist healthcare environment.

4.2 Instrumentations

The present study used a self-administered questionnaire with 39 items, adapted from established and validated scales to fit the study's context (Table 1). These adapted scales have demonstrated sufficient reliability and validity in earlier studies. Based on the recommendation by Hair et al., (2018) and Sekaran and Bougie (2013) that instruments should accurately measure their intended constructs, content, and face validations were carried out by five expert reviewers, including academicians and practitioners in organisational behaviour and psychology. The original English instruments were translated into Malay and back-translated into English to ensure accuracy, and a bilingual survey form was developed.

Table 1: Sources of the Instruments

Variables	Sources	Items	Scale
DJ	Niehoff and Moorman (1993)	6	(1) strongly disagree – (5) strongly agree
OCB	Harris et al. (2018); Spector et al. (2010)	15	(1) never – (5) always
PR	Perugini et al. (2003)	6	(1) very true of me – (5) very untrue of me
NR	Perugini et al. (2003)	6	(1) very true of me – (5) very untrue of me
TI	Roodt (2004)	6	(1) highly unlikely – (5) highly likely

Notes: DJ=distributive justice; OCB=organisational citizenship behaviour; PNR=personal norm of reciprocity; PR=positive reciprocity; NR=negative reciprocity; TI=turnover intention

4.3 Population and Sampling

Hwang and Yi (2021) contended that employees with short tenures are less suitable for assessing organisational justice, highlighting limitations in capturing such evaluations among these individuals. In addition, Lu et al., (2021) observed that the influence of job security on OCB and reciprocity norms varies by employment type, with a linear effect among contractual employees and a curvilinear effect among permanent employees. Based on these considerations, the study focused exclusively on permanently employed doctors in ten public hospitals in the Klang Valley, comprising 1,448 specialists and 2,903 non-specialist doctors, bringing the total to 4,351.

Based on Krejcie and Morgan's (1970) table, a sample size of 357 was appropriate for a population between 4,000 and 5,000. To account for potential missing data, 10% was added, and the figure was rounded to the nearest hundred, resulting in a final sample size of 400 doctors. A stratified sampling approach was applied to select ten hospitals from four categories: state, major specialist, minor specialist, and non-specialist hospitals. Within each hospital, doctors were further stratified into specialists and non-specialists. Based on subgroup proportions, 132 specialists and 268 non-specialists were randomly selected. This proportionate stratified random sampling approach ensured a representative population distribution and enhanced the generalisability of the results.

4.4 Management of the Research Ethics

The Medical Research and Ethics Committee (MREC) under the National Medical Research Register, Ministry of Health granted permission to conduct this study within the Ministry's premises. Participants signed a "Participant Information Sheet" and "Informed Consent Form" prior to taking part in the study.

4.5 Data Analysis Procedures

The study used the Statistical Package for Social Sciences (SPSS) to analyse participants' TI. Structural equation modelling (SEM) was then conducted using the Analysis of Moment Structures (AMOS) software. SEM with AMOS supported the development of the measurement model by assessing item factor loadings, as well as convergent validity and discriminant validity. It also facilitated the development of the structural model and enabled the researchers to test hypotheses and draw meaningful conclusions.

5. CONFIRMATORY FACTOR ANALYSIS

Out of 687 distributed questionnaires, 417 responses were received (60.7%). However, 37 participants who provided unengaged answers that potentially upset the data interpretation and inferences (Persic-Beck et al., 2022) were excluded from the analysis. The dataset had 0.33% missing values, well below the 5% threshold (Kline, 2016), and met the missing completely at random (MCAR) assumption. Given the adherence to the MCAR requirement, missing values were addressed through mean substitution (Hair et al., 2018). Ultimately, complete data from all

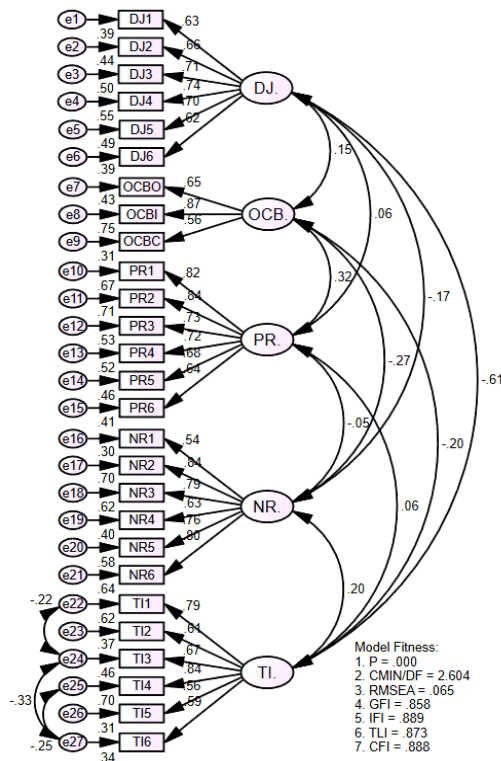
380 participants were retained for the confirmatory factor analysis to develop the measurement model, and, subsequently, the structural models.

5.1 Measurement Model

DJ was measured as a single latent construct in this study. Meanwhile, OCB is represented by a three-dimensional model combining OCBO, OCBI, and OCBC dimensions (Lavee & Pindek, 2020) measured using 15 indicators. Although multidimensional, OCB was treated as a latent mediator between DJ and TI. Non-random item parcelling was applied to group items into their respective dimensions using both exploratory and confirmatory factor analyses (Kline, 2016). The resulting model represented OCB as a first-order factor, with 11 items across the three dimensions showing significant loadings ≥ 0.5 (Hair et al., 2018).

Hair et al., (2018) recommend assessing all constructs simultaneously in CFA to evaluate overall model fit. Accordingly, the authors developed a measurement model associating parcelled OCB with DJ, PR, NR, and TI constructs in a pooled CFA. As shown in Figure 2, all observed items fit into a single SEM diagram, which yielded acceptable factor loadings (≥ 0.5) and achieved acceptable model fit, indicating that the data aligns well with the designed model and the model has a good representation of the relationships between the tested constructs (Hair et al., 2018).

Figure 2: Measurement Model



Convergent validity is assessed through item factor loadings, where a score of ≥ 0.5 is considered acceptable to indicate sufficient internal consistency reliability (Hair et al., 2018). Composite reliability (CR) also reflects internal consistency, with a recommended threshold of 0.60 (Fornell & Larker, 1981) or 0.70 (Hair et al., 2018). Average variance extracted (AVE) further supports convergent validity, with an acceptable score of 0.5 or higher (Hair et al., 2018; Kline, 2016), though a lower AVE may still be acceptable if CR exceeds the recommended level (Fornell and Lacker, 1981; Lam, 2011). Table 3 shows that factor loadings, CR, and AVE meet these criteria. Discriminant validity is confirmed, as the bold, italicised diagonal values representing the square roots of the AVEs exceed the corresponding inter-construct correlations.

Table 3: Internal Consistency Reliability, Convergent Validity, Discriminant Validity and Mean

Constructs	Items	Factor Loadings	AVE	CR	Discriminant Validity					Mean
					DJ	OCB	PR	NR	TI	
DJ	DJ1	0.62	0.46	0.83	0.68					3.258
	DJ2	0.66								
	DJ3	0.71								
	DJ4	0.74								
	DJ5	0.70								
	DJ6	0.62								
OCB	OCBO	0.65	0.50	0.74	0.15	0.71				3.636
	OCBI	0.87								
	OCBC	0.56								
PR	PR1	0.82	0.55	0.88	0.06	0.32	0.74			3.390
	PR2	0.84								
	PR3	0.73								
	PR4	0.72								
	PR5	0.68								
	PR6	0.64								
NR	NR1	0.54	0.54	0.87	-0.17	0.27	-0.05	0.73		2.291
	NR2	0.84								
	NR3	0.79								
	NR4	0.63								
	NR5	0.76								
	NR6	0.80								
TI	TI1	0.77	0.44	0.82	-0.63	-0.18	0.06	0.21	0.67	3.136
	TI2	0.61								
	TI3	0.67								
	TI4	0.84								
	TI5	0.56								
	TI6	0.59								

Notes: DJ=distributive justice; OCB=organisational citizenship behaviour; OCBO=organisational citizenship behaviour directed to organisation; OCBI=organisational citizenship behaviour directed to individual; OCBC=organisational citizenship behaviour directed to customer; PR=positive reciprocity; NR=negative reciprocity; TI=turnover intention; AVE=average variance extracted; CR=composite reliability

5.2 Structural Model

Figure 3 represents the structural model of the path relationships between exogenous and endogenous constructs in SEM, which achieved acceptable fit indices. The model shows that the combination of OJ and OCB explained 39.0% ($R^2=0.39$) of the variance in the effects on TI.

Figure 3: Structural Model for the Direct and Mediation Effects

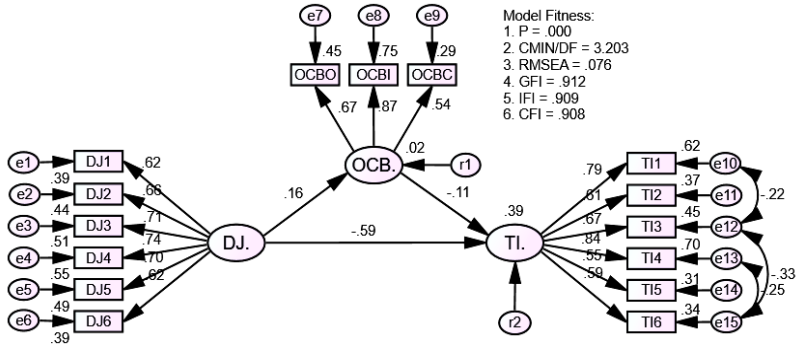
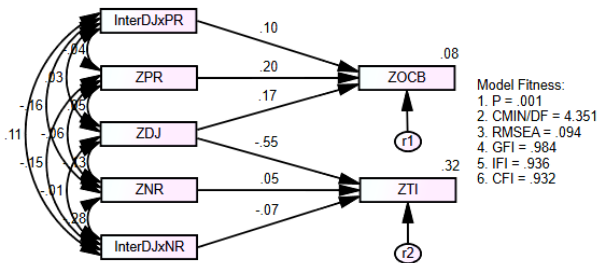


Figure 4 illustrates the structural model used to examine the moderation effect of PR between OJ and OCB and the moderation effect of NR between OJ and TI. The model achieved a satisfactory fit, suggesting that the data used to test the relationships between exogenous and endogenous variables align well with the proposed model (Hair et al., 2018).

Figure 4: Structural Model for the Moderation Effects



6. FINDINGS

6.1 Identification of Public Doctors' Turnover Intention

Based on Roodt's (2004) threshold, a mean score below 18 indicates a desire to stay, while a score of 18 or above reflects an intention to leave. As shown in Table 4, 58.16% ($n = 221$) of the doctors reported an intention to leave, whereas 41.84% ($n = 159$) expressed a desire to stay. The overall adjusted mean score of 3.136 suggests that doctors in public hospitals within the Klang Valley exhibit a moderate level of TI, with a slight inclination toward leaving.

Table 4: Summary of the Level of Turnover Intention

Turnover intention (Total Items: 6)	N= 380 (%)
Score: <18 (intention to stay)	n= 159 (41.84)
Score: ≥18 (intention to leave)	n= 221 (58.16)
Sum Score	7149.69
Mean (Sum score/380 participants)	18.81
Adjusted mean (Mean/6 items)	3.136
Level of Turnover Intention	Moderate

6.2 Tests of Hypotheses

Hypotheses were tested to evaluate the structural model, focusing on direct and mediating effects between the constructs. For the direct effects, DJ showed a significant inverse relationship with TI (H1: $B = -0.395$, $f^2 = 0.5187$, $p = 0.001$), indicating that a one-unit increase in DJ is associated with a 0.395-point decrease in TI. Additionally, DJ positively affected OCB (H2: $B = 0.064$, $f^2 = 0.0246$, $p = 0.015$), suggesting that a one-unit increase in DJ could enhance OCB by 0.064 points. Furthermore, OCB negatively influenced TI (H3: $B = -0.179$, $f^2 = 0.0130$, $p = 0.037$), with a one-unit increase in OCB linked to a 0.179-point decrease in TI. These findings support hypotheses H1, H2, and H3, as presented in Table 5.

Table 5: Results of Hypotheses Testing (Direct Effects)

Paths	B Estimates	f ²	C.R.	p	Results	Decisions
DJ→TI	-0.395	0.5187	-7.950	0.001	Significant	H1 supported
DJ→OCB	0.064	0.0246	2.424	0.015	Significant	H2 supported
OCB→TI	-0.179	0.0130	-2.088	0.037	Significant	H3 supported

Notes: DJ=distributive justice; OCB=organisational citizenship behaviour; TI=turnover intention;

Table 6 presents the results of the bootstrapping analysis conducted with 2,000 repeated samples and a 95% bias-corrected confidence interval, as Preacher and Hayes (2008) recommended, to validate the mediation effect. The absence of a cross-zero between the lower bound (-0.042) and upper bound (-0.001), along with a two-tailed significance value ($p = 0.035$), confirms the mediation effect of OCB (Hair et al., 2018). While DJ directly reduces TI by 0.395 points, it also indirectly reduces TI by 0.407 points through partial mediation by OCB. Thus, H4 is supported.

Table 6: Results of Hypothesis (Mediation Effects)

Paths	B Estimates (Direct, Indirect, Total)	Upper Bound, Lower Bound	p	Results	Decisions
DJ→OCB →TI	-0.395, -0.012, -0.407	-0.042, -0.001	0.035	Significant	H4 supported

DJ=distributive justice; OCB=organisational citizenship behaviour; TI=turnover intention.

To assess the moderation effects between the variables, we employed the standardisation ‘*mean-centering*’ approach and ‘*interaction term*’ technique guided by Hair et al., (2018). Decisions were made based on the rule of thumb of the $p \leq 0.05$ significance value of the interaction term between the predictors and the outcomes. As demonstrated in Table 7, the interaction term of DJ and PR (InterDJxPR) was significant in relation to OCB ($B = 0.092$, $p = 0.045$), signifying that PR significantly moderated the relationship between DJ and OCB. In contrast, the interaction term

between DJ and NR (InterDJxNR) was not significant in relation to TI ($B= -0.066, p= 0.095$), suggesting that NR did not significantly moderate the relationship between DJ and TI.

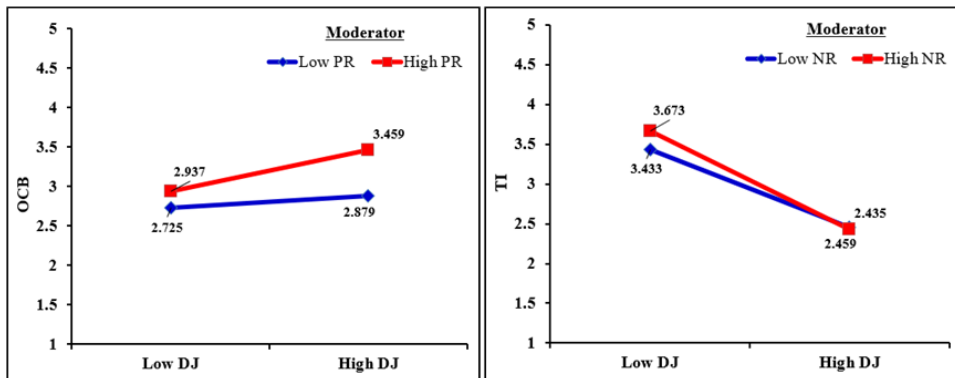
Table 7: Results of Hypotheses Testing (Moderation Effects)

Paths	B Estimates	C.R.	p	Results	Decisions
DJ → OCB	0.169	3.434	0.001	-	-
PR → OCB	0.198	4.018	0.001	-	-
InterDJxPR → OCB	0.092	2.008	0.045	Significant	H5 supported
DJ → TI	-0.553	-12.975	0.001	-	-
NR → TI	0.054	1.204	0.228	-	-
InterDJxNR → TI	-0.066	-1.672	0.095	Not significant	H6 not supported

Notes: DJ=distributive justice; OCB=organisational citizenship behaviour; PR=positive reciprocity; NR=negative reciprocity; TI=turnover intention.

To explicate the findings, the Microsoft Excel tool Gaskin (2012) provided was used for slope analysis to ascertain the outcomes of moderation effects from the segmented level of PR and NR. Based on the slope analysis illustrated in Figure 5, the results indicate that the significant positive relationship between DJ and OCB was strengthened by high PR. Conversely, the positive relationship was weakened by low PR. Despite being estimated as insignificant, there is an indication that a high NR strengthens the negative relationship between DJ and TI. Conversely, a low NR weakens their negative relationship.

Figure 5: Slope Analysis of the Moderation Effects



7. DISCUSSION

The current investigation explored the direct impact of DJ on TI among public sector physicians in the Klang Valley region. The empirical analysis unveiled that DJ was a significant predictor, affecting an inverse relationship with TI. The findings of this study further support the notion that the perception of tangible benefits shared by the organisation (Medina-Craven & Ostermeier, 2021), contributions-outcomes imbalance (Mengstie, 2020), inadequate compensation (Choi & Shin, 2022) and the feeling of not being valued by the organisation (Chen et al., 2022) are the predictive factors that may shape TI among healthcare workers. This finding, consistent with

earlier research, suggests that organisations should prioritise the fair distribution of tangible benefits, mitigate any mismatch between employee contributions and outcomes, provide adequate compensation, and ensure that employees feel valued to reduce TI among healthcare workers. By implementing these practices, organisations could more effectively retain talent and maintain a stable workforce.

OCB was found to have a significant inverse effect on TI, contrary to the claim by Memon et al.,'s (2017) that the collectivist culture among Malaysians may motivate them to accept extra-role behaviours as part of social norms and, thus, not be influential on TI. Our study offers a different perspective: while Malaysians may commonly view extra-role behaviours as part of their cultural norms, the manifestation, and impact of OCB on individual behavioural responses can differ among individuals in various organisational settings and under different shared values. This contradicts Memon et al.,'s (2017) earlier conclusion regarding the insignificant effect of OCB on TI. Instead, the emphases of Shanker (2018), Al Shbail and Al Shbail (2020), and Manoppo (2020) regarding the role of OCB in encouraging employees to stay longer were supported. Thus, this study could conclude that despite being in a similar collectivistic social environment, differences in the social context, workplace settings, and commonly shared values might vary OCB's effects on TI among organisational members.

Our bootstrapping analysis confirms and provides empirical evidence that OCB plays a significant mediating role. Specifically, OCB enhances the impact of DJ in reducing TI among public doctors. This effect is demonstrated through the shift from a direct effect ($B = -0.395$) to a total effect ($B = -0.407$), incorporating the indirect effect ($B = -0.012$) of OCB on the inverse relationship between DJ and TI. The results suggest that OCB among public doctors is crucial, as an individual willingness to engage in extra-role behaviour could complement the organisation's justice practices in inculcating commitment to stay among the public doctors. These findings corroborate previous research emphasising the importance of intervening factors in strengthening and enhancing the positive impact of justice practices on employee retention (Cao et al., 2020; Huang et al., 2019; Suifan et al., 2017). The findings also complement earlier studies in healthcare settings that have identified various mediators such as job satisfaction, organisational commitment, and organisational trust amid the association between justice and TI among healthcare professionals (Kim & Park, 2021; Zahednezhad et al., 2021).

Reciprocity, a core element of Social Exchange Theory (Blau, 1964), posits that individuals respond to favourable treatment with positive behaviours and to unfavourable treatment with adverse reactions. The significant moderating effect of PR on the relationship between DJ and OCB advances our understanding of how internalised positive norms influence behavioural responses. The findings suggest that the effect of DJ on employees' willingness to engage in OCB is not consistent across individuals but varies depending on their tendency to reciprocate positively. This aligns with the perspectives of Zou et al., (2015), Cheng et al., (2021), and Neumann (2019), who emphasised that a positive moderator tends to strengthen the relationship between positive predictors and positive behavioural outcomes. Consistent with their findings, this study shows that individuals with high PR are more likely to translate perceived justice into higher levels of OCB, reinforcing the role of reciprocity in shaping employee behaviour.

Nonetheless, the insignificant moderating effect of NR identified in this study limits the generalisability of the reciprocity concept within Social Exchange Theory (Blau, 1964) in the

context of negative reciprocation. Specifically, the finding challenges the theoretical expectation that NR would amplify the effect of perceived injustice, resulting in a stronger intention to leave. In this context, doctors' intention to quit likely stems more from a rational response to unfair treatment than from retaliatory motives or hostile reactions toward their employer. As such, prior findings on NR's moderating role between abusive supervision and supervisor-directed deviance (Mitchell & Ambrose, 2007), workplace ostracism and knowledge-hiding behaviour (Zhao et al., 2016), and abusive supervision and knowledge-hiding (Jahanzeb et al., 2019) could not be extended by this study. Instead, the results suggest contextual elements like public sector responsibility or doctors' ethical commitment to serve the community may restrain their inclination to respond with increased intention to leave, even when injustice is perceived.

8. CONTRIBUTIONS, LIMITATIONS AND RECOMMENDATIONS

8.1 Contributions

This study extends the applicability of justice-related theories to the context of public healthcare, offering empirical evidence that the relationships between DJ and doctors' behavioural outcomes remain relevant within the unique and demanding environment of the public health sector. By integrating theoretical frameworks such as Equity Theory (Adams, 1965), Social Exchange Theory (Blau, 1964), and the norm of reciprocity, the study presents a comprehensive view of the factors influencing TI among public doctors. This integration allows for a deeper understanding of the complex interplay between justice perceptions and employee behaviour, contributing to developing a more context-specific and holistic model of organisational behaviour within healthcare settings. Notably, the study contributes to the expanding literature on OCB and reciprocity norms as key intervening mechanisms in the relationship between DJ and TI. Identifying OCB's partial mediation strengthens the understanding of how DJ impacts employee outcomes, particularly TI. These findings underscore the importance of considering multiple interacting factors when addressing TI, supporting the development of more inclusive and effective retention strategies tailored to the needs and values of healthcare professionals working in the public sector.

The finding that PR moderates the relationship between DJ and OCB highlights the role of a contextual third factor that enhances the impact of DJ in promoting extra-role behaviours, particularly among customer-oriented service employees. This suggests that healthcare organisations should not rely solely on the equitable distribution of resources but should also focus on cultivating norms of positive reciprocation. Fostering such norms can encourage prosocial behaviours and reduce withdrawal tendencies, ultimately benefiting the organisation and its service recipients. On the other hand, the insignificant moderation effect of NR does not imply a complete lack of association or potential impact on other variables (Greenland et al., 2016). The inverse effect of the interaction term between DJ and NR (InterDJxNR) on TI indicates that NR could intensify the negative consequences of perceived injustice, potentially increasing the likelihood of withdrawal. This finding suggests that strong feelings of retaliation and anger in response to perceived unfairness could translate into a heightened intention to leave. Therefore, public healthcare organisations should consider implementing proactive strategies to reduce the development of undesirable reciprocity dispositions. Such efforts may help mitigate

the escalation of adverse reactions to perceived injustice and reduce employee turnover driven by retaliatory motives.

8.2 Limitations and Recommendations

This study has several limitations stemming from factors beyond the researchers' control. First, the research was confined to public hospitals in the Klang Valley region, limiting the ability to generalise the findings to doctors in other regions or healthcare sectors within Malaysia. Therefore, any extension of these findings to different contexts should be made cautiously. Future studies should be conducted across more diverse geographical and institutional settings to validate these results and better reflect the varied experiences and perspectives influencing doctors' TI. Second, the study faced challenges related to non-response. Although steps were taken to ensure a representative sample, non-responding participants may hold different views on TI or DJ, potentially introducing bias. Future research may benefit from mixed-method approaches combining qualitative interviews with quantitative surveys to validate and enrich the data. Third, this study used a cross-sectional design, gathering data at one specific time. While this allows for identifying relationships between variables, it does not capture how these relationships may evolve. Longitudinal studies are recommended to explore how changing workplace environments, organisational policies, career development opportunities, job responsibilities, and reward systems affect TI over time. Finally, data collection through self-administered questionnaires relies on individual self-assessment, which may be subject to common method bias. Future research could include evaluations from supervisors or colleagues to help reduce personal individual-level bias and provide a more balanced understanding of the issues examined.

9. CONCLUSION

The linkages between DJ, reciprocity norms, and employee outcomes, such as OCB and TI, hold significant importance in public health organisations. Based on the findings of this study, public health institutions can leverage the mediating role of OCB and the moderating effect of PR by adopting a comprehensive strategy that encourages these individual qualities, promotes DJ, and actively discourages the development of NR among public doctors. While capitalising on PR to enhance OCB, the adverse influence of NR on TI can be reduced by fostering a workplace culture rooted in fairness and mutual respect. This approach may include employee recognition programs, equitable reward systems, transparent decision-making, open communication, and supportive work environments. Implementing such strategies can result in a more engaged and committed workforce, improving organisational performance and healthcare service quality. Future research should explore these relationships further within more homogeneous healthcare populations to guide the development of targeted policies and interventions.

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