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# The Mediating Role of Open Innovation in the Relationship Between Organizational Justice and Organizational Pride in Egypt's Healthcare Sector

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**Abstract:** Until now, studies in Egypt have not focused on investigating the mediating role of open innovation in the relationship between organizational justice and organizational pride in any sector. This study employed social exchange theory to examine the role of open innovation in the joint relationship between organizational justice and organizational pride. Using Smart PLS and PROCESS macro, the analysis of data obtained from 275 employees in the Egyptian healthcare sector revealed a positive impact of organizational justice on organizational pride. Furthermore, there was a positive impact of organizational justice on the implementation of open innovation. The study also demonstrated the positive mediating role of open innovation in the relationship between organizational justice and organizational pride.

**Keywords:** organizational justice, open innovation, organizational pride, and social exchange theory.

#### 1. Introduction

Organizational justice (OJ) and organizational pride (OP) are crucial contributors to employee satisfaction, motivation, and overall organizational performance [1]. Open innovation (OI) has received considerable attention in recent years as a means of fostering creativity, collaboration, and knowledge sharing within organizations. To improve its innovation methods, OI is actively seeking out the insights, experience, and materials of the outside world. Customers, suppliers, and academic institutions must all work together on this [2]. Although organizational justice and open innovation have each

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been the subject of substantial individual study, the influence of both factors on employee outcomes has received less attention. The ability to work together effectively, think outside the box, and strive for constant improvement is especially important in the healthcare industry, where providing the best possible care to patients is vital. Accordingly, this research aims to examine how open innovation might serve as a moderator between organizational justice and organizational pride in the healthcare industry.

Healthcare businesses may improve their innovation capabilities and encourage employee pride and happiness by understanding how open innovation operates as a process that turns organizational fairness into organizational pride. To accomplish that objective, the study will employ the theoretical framework of organizational justice, It includes not just fair treatment but also fair treatment regarding how people interact with one another and with institutions. The research will also employ open innovation and its related activities such as invention, information sharing, and cooperation with outside parties.

This research will add to the current literature by illuminating the mediating function of open innovation in the relationship between organizational justice and organizational pride in the healthcare industry. Furthermore, this study clarified OI practices, OJ, and OP have a relationship. Through positive social exchange relationships and a culture of fairness and equity, organizations can imbue a sense of pride and commitment in their employees, resulting in greater innovation and organizational success. The findings will provide healthcare managers and policymakers with valuable insights that will enable them to develop strategies that promote a just and innovative work environment, resulting in increased employee pride, satisfaction, and organizational performance.

## 2. Theoretical Framework and current hypothesis

#### 2.1 Organizational justice

Farid et al. [3] describe organizational justice as "employees' perceptions of how fairly they are treated by the organization at work." OJ has evolved, with an initial focus on distributive justice, or the fairness of decision results [4]. Then, a three-factor scale was developed to measure employees' perceptions of the fairness of their leaders' interactive communication during the decision-making process [5]. This third factor is known as interactional justice. Four aspects were then identified as constituting OJ, all expected to be correlated with one another. Feelings of fairness are at the heart of distributive justice, one of the four pillars of justice, including procedural justice, informational justice, and interpersonal justice. This mostly concerns the belief that one receives just compensation for one's efforts.

Procedural justice is an essential adjunct to OJ, and studies show that people care about procedures in part because they lead to the outcomes with which the organization is concerned. Like interpersonal justice, information justice is demonstrated through truthful and transparent data exchanges. Interpersonal justice emphasizes fairness in employee-official relations, whereas distributive justice emphasizes results. Clear explanations of rules and processes, politeness, genuine social interactions, personal space preservation, and courteous conduct are all examples of interpersonal justice [6]. According to a past study, Thus, according to prior research, OJ encompasses Workers' sense of fairness regarding outcome distribution, processes used to decide outcomes,

how they are treated in interpersonal settings, and the completeness, accuracy, and transparency of information provided. Recent research has characterized OJ as having four aspects [7] Organizational behavior has been studied using OJ's four dimensions [8]. For instance, [7] evaluated how the four elements of With OJ, healthcare staff in Ethiopia's public and private hospitals were likelier to consider leaving their positions [8].

## 2.2 Organizational Justice and Open Innovation

Firms' reliance on external information sources for competitive advantage is a common thread in the literature on strategic management and innovation [9]. At the same time, we need a deeper comprehension of how new organizational practices impact the absorption and utilization of consumer information to boost innovation outcomes. Research on novel organizational practices demonstrates the importance of these practices for organizational success, leading to hopes that organizational justice will play a role in the motivating process by which such behavior is influenced [10]. According to some research [11,12], a sense of organizational justice is a major motivator that influences whether or not workers exhibit a certain behaviour.

## 2.3 Organizational Justice and Organizational Pride

OP must attract scientific interest and be a key success element for businesses and organizations [13]. The staff should feel accomplished and organized. Pride is felt when someone accomplishes great things or helps others. According to researchers, employees may take pride in their employer if it is well-regarded by outgroup members. [14]. Thus, Jones [15] described OP as an idea based on collective employee action and said that employees take pleasure in their work only when they can achieve a sense of personal dignity and accomplishment. Lee et al. [16] Employees that have an optimistic OP tend to be loyal to their employer. The German Federal Ministry of Education and Research has recognized two more aspects of OP. The former relies on employees' general feelings of satisfaction and pride in their work for the company, whereas the latter hinges on their impressions of a single noteworthy achievement on the part of the business [17].

Positive organizational climate OJ may inspire employees to feel OP, increasing the likelihood that they will remain with the firm and strive for personal growth, as has been shown in studies such as [18]. Furthermore, the findings from this research highlight the value of OJ and the broad range of effects it may have, and they show that pride in one's organization may serve as a potent intrinsic incentive for workers. A corporation may create OP by discussing the firm's successes, offering job descriptions, and rewarding individuals for their accomplishments; The previous point to a link between OJ and OP, either directly or indirectly. This study makes a hypothesis for this reason.

#### 2.4 Perceptions of open innovation as a Mediator

Business innovation implementation studies have shown that open innovation (OI) has developed from a fresh idea to a core principle. Numerous studies have presented alternative theoretical perspectives examining how open innovation adoption affects firm performance. These include the attention theory [19], organizational learning theory [20], resource theory [21], knowledge theory [22,23], cost-benefit theory [24], relationship theory [25], and business model theory [26].

The "social exchange theory" SET links open innovation, Justice, and pride in Institutions' conduct. In SET, individuals interact to benefit. In exchange for income, advancement, and other benefits, employees share their abilities, effort, and time with their Institutions [27]. OI involves internal and external partners to produce new products, services, and ideas. Businesses that use OI techniques allow employees to communicate with clients, vendors, and business partners [28].

Justice inside the organization is also crucial to the success of people-to-people interactions. When workers believe they are being treated properly by the company, they are more likely to engage in constructive social exchange activities, including idea generation, information sharing, and teamwork. According to a study [29], Conversely, pride in one's organization can grow when employees have pleasant interactions with one another. Pride in one's job and organization is more probable when workers believe their efforts contribute to something significant [30].

Therefore, according to the SET theory, OI practices, OJ, and OP are interrelated. By fostering positive social exchange relationships and a culture of fairness and equity, organizations can instill a sense of pride and commitment in their employees, leading to increased innovation and organizational success.

In summary, this paper proposes the hypothesis.

H1: OJ has a positive effect on OP.

H2: OJ has a positive effect on OI.

H3: OI has a positive effect on OP.

H4: The relationship between OJ and OP is mediated by OI.

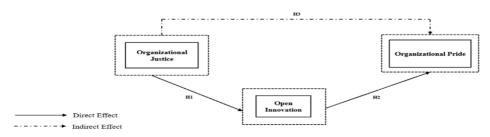


Fig. 1. Model for study

# 3. Methodology

The study population includes workers in the Egyptian healthcare sector, including doctors, nurses, and administrators. Surveys were sent to a sample of the population in various hospitals in Egypt between March 1st and April 1st, 2023; Methods included a self-administered survey and a convenience sample. 275 participants were contacted from different hospitals, with 66 questionnaires deemed unusable. Accordingly, 209 responses were deemed sufficient for the survey. To use structural equation modeling, the study had a sufficiently large sample size. Gender, level of education, and age were the first three factors analyzed in the survey's four-factor design. In the second section, we measured OI with six items [31] [32] OP with an adaptation of five items [33], We

measured everything on a Likert scale (where 1 = strongly disagree, 5 = strongly agree) for consistency and reliability.

# 4. The study's findings

Here, we focus on Harman's (CMB) examination of a single element. The larger component accounted for 42.13 percent of the total variance. No one-factor accounts for more than half the variance [34]. The investigation determined that CMB was not significant. Table 1 displays the psychometric testing results[35]. Utilizing alpha and item-to-total correlation, the study's components were tested. This method demonstrates that there is a high degree of internal consistency between all of the measurements [35].

Table				

Variables	Items no	alpha	CR	AVE	Mean	SD
Organizational Justice	8	0.960	0.966	0.781	4.2	0.9
Open Innovation	6	0.970	0.976	0.871	3.6	1.2
Organizational Pride	5	0.957	0.967	0.854	4.0	1.0

In addition, There needs to be enough internal consistency in the measuring scheme, as mentioned by Hair [35] All of the assessment items had substantial effects on the variables they were intended to measure (p 0.001), with construct loads over 0.70. In addition, the AVE for every component was more than 0.50, demonstrating convergence. Because no indicator element has a VIF over 5 [36], it can be seen in Table.2 that the No numerous collinearity issues were found in the measurement model. According to the Fornell-Larker criteria, the idea's AVE value is uncorrelated with any other concept, demonstrating discriminating validity.

Table 2. Fornell and Larcker Criteria

Constructs	1	2	3	
1- Organizational Justice	0.884			
2- Open Innovation	0.317	0.933		
3- Organizational Pride	0.514	0.622	0.924	

<sup>\*\*</sup> Note: AVE is displayed along the diagonals, and the squared correlations between the variables are displayed in the last rows of the table.

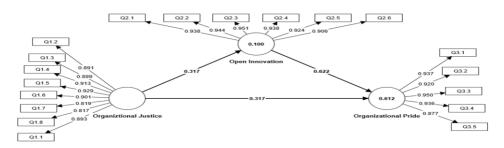


Fig. 2. Path Analysis Results

The next phase was verifying the three assumptions derived from the structural model. Our model gives OJ a 61.2% predictive advantage over OI, which is just 10%. GOF = .51 > 0.36, APC = (.42, p.001), AVIF = 2,045, and  $AR^2 = (.27, p.001)$ , demonstrate that, on the whole, our model fits the data well.

<b>Table 3.</b> Standardized coefficient and Direct, Indirect, and Total Effect	e 3. Standardized coefficient and Dire	ect. Indirect, and Total Effect
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Criterion Variable	Predictor variables	Relationship	coefficient	Adj R <sup>2</sup>
OJ	OP	H1	0.317***	0.10
OJ	OI	H2	0.317***	
				0.612
OJ	OP	Н3	0.622***	
Relationship directions:		Direct	Indirect	Total
OJ	OP	0.317	0.00	0.317
OJ	OI	0.317	0.197	0.514
OJ	OP	0.317	0.305	0.622

<sup>\*\*\*</sup> P < .01

The outcomes of our three models' hypothesis tests are depicted in Fig. 2. The computed route coefficients for each component and the association between them are displayed in Table.3.

OJ $\rightarrow$ OP ( $\beta$ = .317, T= 6.242, P= 0.00) and OJ $\rightarrow$ OI ( $\beta$ = .317, T = 4.759, P = 0.00); OI $\rightarrow$ OP ( $\beta$ = .622, T = 13.038, P = 0.00H1, H2, and H3 were all supported and statistically significant. The effect of OJ on OP may have been indirect or direct, depending on the role played by OI ( $\beta$  = .305, T = 4.845, P = 0.00). So, is thus accepted. H4 here.

#### 5. Conclusion

In conclusion of this research, the study has provided evidence supporting the mediating role of open innovation in the relationship between organizational justice and organizational pride. The study found that organizational justice has a direct and positive impact on organizational pride, as well as a direct and positive impact on the implementation of open innovation within the organization. Additionally, the study demonstrated that open innovation acts as a mediator between organizational justice and organizational pride, helping to channel the influence of organizational justice on organizational pride. These findings have important implications for managers and decision-makers in organizations, indicating that promoting open innovation and creating a culture of organizational justice that translates to a healthy and fair work environment can increase employee pride. This interaction can increase employee satisfaction, willingness to contribute to the innovation process, and commitment to their job duties. This study provides valuable insights into the significance of organizational justice and open innovation in attaining organizational pride. A deeper understanding of this relationship can contribute to the improvement of the work environment, the enhancement of employee performance, and the promotion of the overall sustainability of the organization. This article adds to the body of knowledge, but its limitations suggest further research. Open innovation was the main point of this paper since it served as a mediator. Nonetheless, in future research, they can use ethical leadership as a moderating variable to examine the relationship between them. Our research was limited to Egypt's health sector, but it applies to other industries, such as the financial sector.

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