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# Impact of Justice and Information Sharing on Logistics Performance in Supply Chain

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## Abstract

**Purpose:** This study examines the impact of three dimensions of justice on information sharing and logistics performance based on established psychological theories of justice. The objective is to validate the necessity of considering distributive, procedural, and interactional justice as factors influencing information sharing within supply chains, thus contributing to the academic understanding of supply chain dynamics. **Research design, data and methodology:** A two-month survey was conducted starting October 2023 to collect data for statistical analysis. A total of 350 completed questionnaires were collected and subjected to empirical analysis. Structural equation modeling was employed to test the hypotheses, using SPSS 18.0 and AMOS 18.0. **Results:** The study revealed that all three dimensions exhibited significant positive effects on information sharing. Furthermore, information sharing demonstrated a significant positive impact on logistics performance, a key metric in evaluating supply chain efficiency. **Conclusions:** Establishing a resilient supply chain is imperative for navigating competitive business environments successfully. Effective information sharing among supply chain partners is essential for achieving this goal. By confirming the importance of justice in facilitating information sharing, which is fundamentally a collaborative endeavor, this study underscores the significance of understanding these interrelationships for enhancing supply chain performance.

**Keywords:** Organizational Justice, Information Sharing, Logistics Performance

**JEL Classification Code:** I10, I19, M19

## 1. Introduction

The contemporary business landscape is characterized by relentless competition and pervasive uncertainties, evolving into an environment where supply chains, rather than individual firms, vie against each other (Bokrantz & Dul, 2023). This shift arises from the challenge firms face in satisfying consumer needs autonomously. Consumers

increasingly demand high-quality products at competitive prices with rapid product turnover, prompting firms to forge collaborative partnerships and construct intricate supply chains. Consequently, without a comprehensive grasp of supply chain management (SCM), firms not only struggle to endure in the cutthroat market but also risk a decline in market share (Adnani et al., 2023).

The question arises: What are the prerequisites for a

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resilient supply chain? While researchers have proposed various factors based on their research objectives, they have unanimously underscored the critical role of information sharing (Tajima et al., 2023; Wen et al., 2023). To achieve resilient supply chains, firms must cultivate fairness and equity in their business relationships with supply chain partners. In other words, fostering mutually equitable alliances is key to optimal supply chain performance (Lee & Ha, 2021). This focus on equity is closely intertwined with the contemporary corporate management ethos. Recently, there have been concerns regarding the abuse of social status within inter-organizational relationships, prompting governmental efforts towards regulation. Despite its prevalence across multiple industries, this practice persists as a conventional norm, making eradication challenging. Considering this, this study seeks to investigate the foundational factors necessary for enhancing logistics performance within the justice theory framework.

The concept of justice extends beyond merely assessing the fairness of individual rewards and encompasses the fairness of these rewards relative to those received by others. This principle of justice has been extensively explored across various academic disciplines and finds relevance within the domain of SCM in business studies. Ethical considerations and principles of justice govern collaborative relationships among firms in SCM (Lee & Ha, 2021). Notably, Brockner and Wiesenfeld (1996) contend that the theory of justice, which can be elucidated using self-interest theory, attribution theory, and referent cognitions theory, describes the interactive dynamics between firms and significantly influences job performance and outcomes.

Thus, this study adopts the theory of justice, recognizing that relationships with supply chain partners represent vital interpersonal connections for firms and are inherently linked to psychological constructs. It posits that distributive justice, procedural justice, and interactional justice, which are integral to the theory of justice, facilitate information sharing—a critical component of SCM. Furthermore, considering the instrumental role of information sharing in fostering an efficient supply chain (Nazifa & Ramachandran, 2018), this study hypothesizes its positive impact on logistics performance, forming the basis for the proposed research model. This study could have several implications within the contemporary business landscape, which is characterized by frequent ethical lapses alongside the evolving dynamics of supply chain disintegration and integration.

The objectives of this study are as follows: (1) to ascertain the influence of the three dimensions of justice on information sharing and logistics performance; (2) to validate the necessity of the three dimensions of justice as antecedent factors of information sharing; and (3) to elucidate the significance of the three dimensions of justice

through scholarly research in the realm of supply chains.

## 2. Theoretical Background

This study focuses on the importance of relationships between firms in the supply chain. It examines three dimensions of organizational justice—distributive justice, procedural justice, and interactional justice—and also explores information sharing and logistics performance to determine the causality. This study theoretically reviews previous studies on organizational justice, information sharing, and logistics performance and summarizes related arguments. The available measures have also been explored based on the review findings.

### 2.1. Organizational Justice

Organizational justice was discussed first in terms of the social exchange theory by Homans (1961) and the equity theory by Adams (1963). Organizational justice can be evaluated based on equity and appropriateness, where equity refers to whether the ratio of one's output to input is deemed adequate compared to another subject under the same conditions and appropriateness refers to judging whether a decision or result given to oneself is right or wrong. Thus, for organizational justice, a certain behavior or action should meet the criteria of equity and appropriateness.

Meanwhile, the research trend related to organizational justice shows that most studies examined distributive justice based on the equity theory until the 1980s. Since the mid-1980s, in addition to distributive justice, many studies explored procedural and interactional justice as well, according to the research objectives.

#### 2.1.1. Distributive Justice

Distributive justice refers to the degree to which members of the organization perceive justice in relation to the distribution of outcomes (Caney, 2001). Specifically, Purnama et al. (2020) argued that distributive justice is the degree to which members perceive whether suitable rewards have been adequately distributed depending on how much effort the members have made. In other words, distributive justice can be interpreted as the perception of whether one is adequately rewarded compared to the efforts made for the firm. Distributive justice has been explored in various ways in academic disciplines related to supply chains as well. Liu et al. (2012) argued that securing distributive justice in the relationship between buyers and sellers in the supply chain improves the quality of mutual relationships, and Griffith et al. (2006) empirically analyzed the need for distributive justice as a prerequisite for smooth collaboration.

### 2.1.2. Procedural Justice

Colquitt et al. (2023) described procedural justice focusing on the fairness of the procedures, rules, and processes in achieving the results. Tyler and Allan Lind (2001) claimed that procedural justice refers to focusing on whether the transaction partner's decision-making method was applied based on fair principles. The key to procedural justice is that members of the organization perceive justice depending on the fairness of not just the results of decision-making but also the procedures that lead to the results. Procedural justice also plays a critical role in relationships between firms. Griffith et al. (2006) argued that the opinions of all members can be reflected through procedural justice related to transparency. Moreover, Wang et al. (2014) empirically analyzed that relationship quality can be improved based on procedural justice.

### 2.1.3. Interactional Justice

Purnama et al. (2020) argued that interactional justice is a concept focusing on the interactions that occur in relationships between members. Specifically, interactional justice indicates that it is important to treat all members fairly and can be interpreted as the social aspect of organizational justice (Colquitt et al., 2001). Many previous studies have revealed that interactional justice is a prerequisite for increasing innovative behavior in addition to influencing task performance and organizational commitment (Colquitt, 2001; Colquitt et al., 2001). Interactional justice can be further classified into interpersonal and informational justice. Interpersonal justice refers to polite and respectful attitudes toward the other party, through which higher mutual trust can be built, according to Colquitt (2001). Meanwhile, informational justice refers to the act of providing legitimate reasons and valid information for decision-making (Colquitt et al., 2001). Specifically, as informational justice involves timely communication along with reasonable explanations, job satisfaction can also be improved.

## 2.2. Information Sharing

There are several requisites for successful SCM. Holland (1995) claimed the need to standardize work and systems based on information technology, and Lambert and Cooper (2000) emphasized the importance of smooth information sharing. As such, it is important to properly handle and share information for efficient collaboration between firms in the supply chain. In particular, existing supply chains are constantly collapsing and being rebuilt given the ongoing trade war between the United States and China and the Russia-Ukraine and Israel-Hamas conflicts. If firms in the supply chain fail to make use of adequate information technology and information sharing at this point, it is

meaningless whether to adopt SCM or not.

As mentioned earlier, information is shared through communication between buyers and sellers in the supply chain, which is the most effective way to improve supply chain performance (Mohr & Spekman, 1994). According to Morgan and Hunt (1994), information sharing is seeking mutual benefit by sharing valuable information between trading partners through various channels. Numerous studies have emphasized the importance and necessity of information sharing. For instance, Chopra and Meindl (2001) proposed information sharing as a solution to reduce the bullwhip effect, one of the chronic problems in SCM. Anthony (2000) argued that knowledge sharing is a prerequisite for increasing logistics efficiency, such as inventory management and order information management, in an unstable business environment. In sum, since information sharing is an effective solution to manage different opinions or conflicts in relationships between firms in the supply chain (Mohr et al., 1996), its importance cannot be emphasized enough.

## 2.3. Logistics Performance

Logistics refers to the planning and execution of the flow of services, inventories, and related information through the length of a supply chain. Since logistics is one of the essential components of supply chains, many firms perceive the importance of its process. In particular, logistics is a concept that includes inflow and outflow logistics in addition to what is done within the firm, which makes it more essential to corporate strategies (Keebler & Plank, 2009).

Meanwhile, supply chain performance is measured from various perspectives, a major indicator for which is logistics performance. Logistics performance has been explored from various perspectives depending on the research objective. First, Gleason and Barnum (1982) examined the concept in terms of efficiency and effectiveness. Stank et al. (2003) classified it into financial performance and non-financial performance, where the former includes market share, sales growth rate, and return on investment, while the latter includes quality, flexibility, delivery speed, and reliability. Moreover, Bowersox and Daugherty (1987) divided logistics performance into internal and external performance, measuring the former using total logistics costs, asset management, and productivity, and the latter using various logistics strategy activities. The measures of logistics performance may vary depending on the purpose of research; this study has selected relevant measurement items based on previous studies.

## 3. Hypothesis Setting and Research Model

### 3.1. Relationship between Distributive Justice and Information Sharing

Distributive justice refers to a fair distribution of rewards based on the contribution of each member of an organization (Caney, 2001). Wei et al. (2020) argued that distributive justice helps firms make more efforts to share information in their relationships with transaction partners. In other words, ensuring distributive justice between firms not only helps develop a system for information sharing with each other but also gives them the will to share information. In a similar context, Ibragimova (2012) empirically analyzed that perceived distributive justice plays a critical role in promoting knowledge sharing. Based on these previous studies, this study argues that distributive justice can serve as an antecedent of information sharing. By controlling profit sharing between firms with explicit and reasonable rules, both parties can benefit from respecting the rules instead of showing opportunistic behavior. Furthermore, information sharing between firms will be a major motivation for obtaining desired rewards. Therefore, the following hypothesis was proposed:

**H1:** Distributive justice has a significant positive effect on information sharing.

### 3.2. Relationship between Procedural Justice and Information Sharing

Procedural justice can be defined as the degree to which the other party perceives how objectively and fairly the processes, procedures, and rules were conveyed to the transaction partner. If the partner feels that these procedures are fair, both parties can build mutual trust and share information smoothly (Anderson & Weitz, 1989; Parker et al., 2014). Meanwhile, information sharing is one of the essential elements for building an efficient supply chain, and Lotfi et al. (2013) especially claimed the need for this in order to secure competitive advantage and achieve supply chain integration. Many previous studies explored the relationship between procedural justice and information sharing. Ellis et al. (2009) claimed that fair procedures must be shown to transaction partners in order to obtain a variety of information. Similarly, De Clercq and Pereira (2020) conducted an empirical analysis revealing that higher procedural justice in treatment leads to more willingness to share information. In sum, there is a close connection between securing procedural justice and sharing a variety of information in relationships between firms in the supply chain. Therefore, the following hypothesis was proposed:

Hypothesis 2: Procedural justice has a significant positive effect on information sharing.

### 3.3. Relationship between Interactional Justice and Information Sharing

Interactional justice is a concept that refers to treating transaction partners fairly with focus on interaction. Interactional justice can be classified into interpersonal justice and informational justice. Interpersonal justice refers to politeness and respect for the other party, and informational justice refers to providing valid information related to decision making (Colquitt, 2001). Interactional justice also plays a key role in the supply chain, and Wei et al. (2020) argued that it can improve commitment and performance. Imamoglu et al. (2019) empirically analyzed that once interactional justice is secured in business relations, firms do not hesitate to share information. And in a similar context, Cugueró-Escofet et al. (2019) discovered that information sharing is necessary in maintaining an ongoing relationship with a transaction partner, which is possible within the framework that involves interactional justice. These previous studies reveal that the existence of interaction is closely related to collaboration, information sharing, and commitment. Therefore, the following hypothesis was proposed:

Hypothesis 3: Interactional justice has a significant positive effect on information sharing.

### 3.4. Relationship between Information Sharing and Logistics Performance

Developing a boundaryless organization is essential in corporate performance (Welch et al., 1990). Specifically, coordination and collaboration between firms not only make internal operations more efficient, but also enable firms to better respond to external changes. However, to perform this role, firms must set up an elaborate internal information system and a collaboration process with transaction partners. Several previous studies also revealed that information is shared through communication between buyers and suppliers, and that such communication is an effective way to improve supply chain performance (Premus & Sanders, 2008; Prajogo & Olhager, 2012). This is because information sharing enables firms to make better decisions regarding ordering, allocation, production, and materials planning by increasing visibility in demand, supply, and inventory. Thus, firms that can obtain accurate information in a timely manner can increase competitiveness and supply chain effectiveness for long-term survival and success. Therefore, the following hypothesis was proposed:

Hypothesis 4: Information sharing has a significant positive effect on logistics performance.

Figure 1 presents these hypotheses in a diagram.

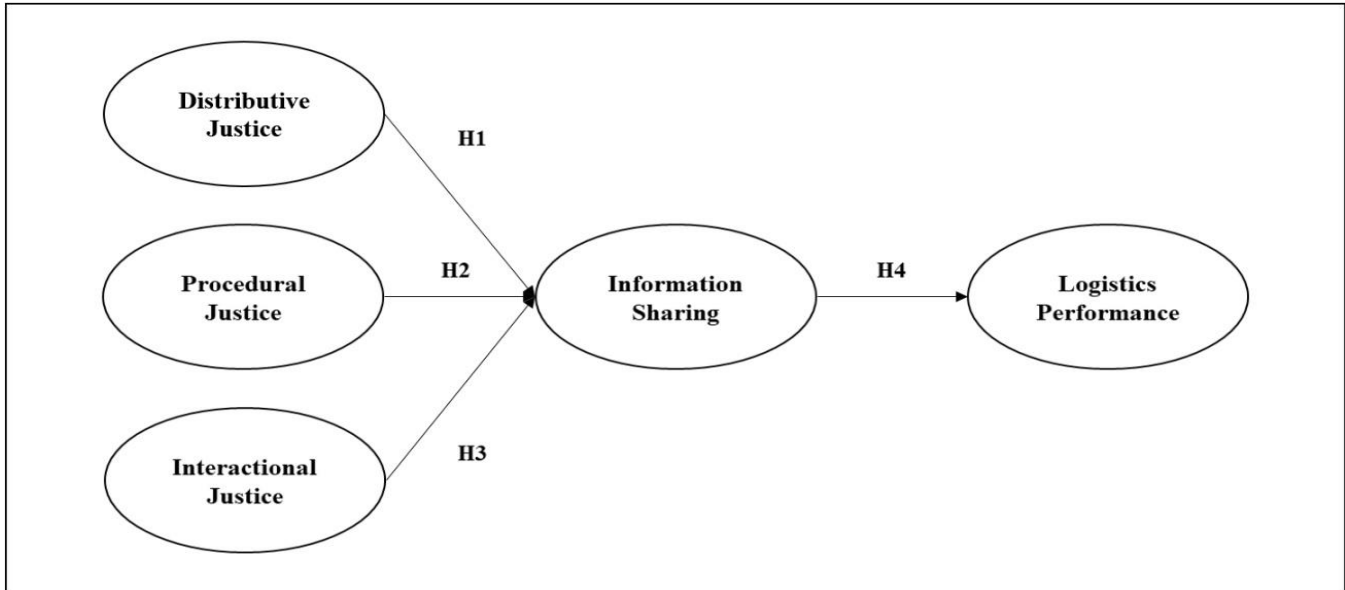


Figure 1: Research Model

## 4. Research Methodology

### 4.1. Data Collection and Sample Characteristics

This study seeks to empirically analyze the effect of the three dimensions of justice on information sharing and logistics performance in the relationship between firms in the supply chain. Prior to distributing the questionnaire, the validity of the research content was secured by seeking advice on the survey items from employees working in

departments related to SCM. Subsequently, the final survey items were selected, with all items measured on a 7-point Likert scale. The survey was conducted for two months from October 2023, targeting those working in supply chain-related jobs in South Korea, through a survey agency called Entrust Survey. A total of 1,600 copies of the questionnaire were distributed, and 350 completed copies were used for statistical analysis, excluding responses from dropouts and disqualified respondents. The characteristics of the sample used in this study are shown in Table 1.

Table 1: Sample characteristics

Tenure in SCM departments		
1-5 years	178	50.86%
6-10 years	112	32.00%
11-15 years	42	12.00%
Main industries		
Semiconductors	143	40.86%
Automobiles	79	22.57%
Bio health	66	18.86%
Total assets as of Q2 2023		
Less than 500 billion won	189	54.00%
500 billion won or more – Less than 10 trillion won	92	26.29%

10 trillion won or more	69	19.71%
Average number of employees as of 2023		
Less than 5000	161	46.00%
Less than 10000	101	28.86%
Less than 20000	54	15.43%
Number of countries included		
1-5 countries	157	44.86%
6-10 countries	120	34.29%
10 countries or more	73	20.85%

SCM, supply chain management

The hypotheses were tested using structural equation modeling, which can examine the relationships between variables set according to the hypotheses at once. Thus, even if a somewhat complex relationship is formed between several variables, it can be easily analyzed using this model. Accordingly, the hypotheses were tested using SPSS 18.0 and AMOS 18.0.

This study measured distributive justice, procedural justice, and interactional justice using four variables each. In addition, information sharing and logistics performance, which is an outcome variable, were also measured using four variables. Table 2 below defines the measurement items used in this study.

#### 4.2. Measurement of Variables

**Table 2:** Measurement of variables

Latent variable	Operational definition	Reference
Distributive justice	The degree to which the reward for work reflects the efforts of the key partners in the supply chain	Colquitt et al. (2023); Purnama et al. (2020)
	The degree to which the reward for work is appropriate considering the tasks completed by the key partners in the supply chain	
	The degree to which the reward for work reflects the contributions made by the key partners in the supply chain	
	The degree to which the reward for work is fairly determined depending on the performance of the key partners in the supply chain	
Procedural justice	The degree to which the procedures for determining the reward for work meet the moral standards	Colquitt et al. (2023); Purnama et al. (2020)
	The degree to which the key partners in the supply chain can appeal to the matters decided by the procedures for determining the reward for work	
	The degree to which the procedures for determining the reward for work are consistently applied	
	The degree to which the procedures for determining the reward for work are unbiased	
Interactional justice	The degree to which the key partners in the supply chain treat you politely	Colquitt et al. (2023); Purnama et al. (2020)
	The degree to which the key partners in the supply chain show respect	

	The degree to which the key partners in the supply chain engage in honest communication	
	The degree to which the key partners in the supply chain provide adequate explanation about work	
Information sharing	The degree to which sales-related information is shared with the key partners in the supply chain	Adnani et al. (2023); Huo et al. (2021)
	The degree to which strategy-related information is shared with the key partners in the supply chain	
	The degree to which organizational know-how is shared with the key partners in the supply chain	
	The degree to which information related to consumer needs is shared with the key partners in the supply chain	
Logistics performance	Storage, transportation, inventory management costs	Goel et al. (2021); Lee and Ha (2021)
	Time between product order and delivery	
	Reduction in the period products are stored	
	Ability to operate logistics-related tasks	

### 4.3. Reliability and Validity Tests

In social science, reliability of variables is generally confirmed using Cronbach’s alpha, whose value should be higher than 0.7 (Hair et al., 2010). Since the variables used in this study generally showed high reliability, convergent validity and discriminant validity of each construct was examined. The convergent validity of the measurement variables was verified using composite reliability (CR) and average variance extracted (AVE). The CR and AVE values

were above the recommended threshold of 0.7 and 0.5, respectively (Hair et al., 2010).

## 5. Results

### 5.1. Reliability and Validity

Table 3 presents the results of the confirmatory factor analysis.

**Table 3:** Confirmatory factor analysis results

Latent variable	AVE	CR	Cronbach's alpha
Distributive justice	0.605	0.806	0.812
Procedural justice	0.612	0.811	0.823
Interactional justice	0.598	0.826	0.801
Information sharing	0.643	0.837	0.796
Logistics performance	0.651	0.845	0.817

AVE, average variance extracted; CR, composite reliability

Table 4 reports the fit of the measurement model. It was found that the research model is acceptable as it generally meets the recommended criteria proposed by Hair et al. (2010). Subsequently, discriminant validity was examined,

verifying that the constructs measured are indeed distinct from one another. The validation results indicated that the squared correlations between all factors were less than the AVE values, thereby confirming the discriminant validity. Table 5 shows the results of the discriminant validity.

**Table 4:** Measurement model fit

Fit index	CMIN/DF	RMR	GFI	CFI	TLI	RMSEA
Research model	1.524	0.049	0.953	0.976	0.961	0.047

CMIN/DF, chi-square/degrees of freedom; RMR, Root Mean Square Residual; GFI, Goodness of Fit Index; CFI, Comparative Fit Index; TLI, Tucker-Lewis; RMSEA, Root Mean Square Error of Approximation

**Table 5:** Results of analyzing discriminant validity

	Distributive justice	Procedural justice	Interactional justice	Information sharing	Logistics performance
Distributive justice	0.605				
Procedural justice	0.450	0.612			
Interactional justice	0.401	0.433	0.598		
Information sharing	0.262	0.269	0.174	0.643	
Logistics performance	0.189	0.216	0.328	0.347	0.651

The squared value of the correlation coefficient excluding the diagonal line

## 5.2. Empirical Analysis

This study used maximum likelihood estimation to verify the causalities and correlations between distributive justice, procedural justice, interactional justice, information

sharing, and logistics performance. The fit of the research model also meets most of the recommended criteria proposed by Hair et al. (2010). Accordingly, all hypotheses were tested and accepted. Table 6 shows the fit of the structural model, and Table 7 shows the results of hypothesis testing.

**Table 6:** Structural model fit

Fit index	CMIN/DF	RMR	GFI	CFI	TLI	RMSEA
Research model	1.690	0.054	0.965	0.949	0.955	0.052

CMIN/DF, chi-square/degrees of freedom; RMR, Root Mean Square Residual; GFI, Goodness of Fit Index; CFI, Comparative Fit Index; TLI, Tucker-Lewis; RMSEA, Root Mean Square Error of Approximation

**Table 7:** Hypothesis testing results

Hypothesis Testing	Estimate	S.E.	C.R.	P	Results
H1	0.687	0.106	6.874	<0.001 (***)	Accepted
H2	0.603	0.104	5.749	<0.001 (***)	Accepted
H3	0.765	0.289	2.531	<0.007 (**)	Accepted
H4	1.779	0.399	4.343	<0.001 (***)	Accepted

\* p<0.05, \*\* p<0.01, \*\*\* p<0.001

## 6. Discussion

### 6.1. Summary of Findings

As the modern business environment is characterized by the competition between supply chains rather than competition between firms, it is becoming more important to build a robust supply chain. This is also related to the increased ethical concerns along with consumer satisfaction. In other words, although a successful supply chain can be built based on mutually fair relationships, there is insufficient research from an integrated perspective

addressing information sharing and logistics performance based on several dimensions of justice. Accordingly, this study proposed information sharing as an antecedent factor that can improve logistics performance, and three dimensions of justice as prerequisites that affect information sharing. The results of the empirical analysis of their interrelationships are summarized as follows.

First, distributive justice had a significant positive effect on information sharing. In terms of the social exchange theory, the act of information sharing is encouraged when a dependency relationship is formed in which the firm believes that the transaction partner will offer fair rewards



(Huo et al., 2023). On the contrary, if the firm receives unsatisfactory rewards, the transaction partner may be perceived as negligent and unfair, not fulfilling its duties, causing the firm to not make further effort for information sharing. Thus, firms in the supply chain must perceive the importance of distributive justice to continue to benefit from their relationships.

Second, procedural justice had a significant positive effect on information sharing. This is consistent with the result of previous studies showing that firms are more motivated to share information when they perceive that they are receiving procedurally fair treatment (Narasimhan et al., 2013; Liu et al., 2012). Unlike other dimensions of justice, procedural justice is a concept focused on decision-making procedures. Fair decision-making procedures may induce cooperative attitudes from firms in the supply chain (Thibaut & Walker, 1975). Thus, the results of this study imply that, if there are no procedural problems in the entire decision-making process, firms are more likely to actively share information.

Third, interactional justice had a significant positive effect on information sharing. Members of an organization that highly perceive interactional justice tend to believe that they are respected, thereby showing a higher sense of belonging to the group. This leads to active participation in learning cognitive collaboration such as knowledge sharing (De Cremer & Van Knippenberg, 2002). For a supply chain, this implies that firms want to have a strong sense of belonging such as strategic alliances to cope with uncertain business environments. Being respected may lead to psychological benefits such as identity. Thus, it is important for firms in the supply chain to perceive that establishing interactional justice in their relationships has a positive effect on the necessary conditions for successful SCM.

Finally, information sharing and logistics performance had a proportional relationship as has been observed in the results of previous studies. Flexible response to storage/transportation/inventory management costs, time, and performance capabilities, which are indicators of logistics performance, is a goal that cannot be achieved without close collaboration with transaction partners. The results of this study imply that increased visibility in demand, supply, and inventory can lead to improved performance. Furthermore, obtaining accurate information can develop responsiveness to various changes, which also leads to customer value creation. Therefore, firms with higher awareness of benefits gained from collaborative knowledge sharing will more strongly tend to value and maintain mutual relationships.

## 6.2. Implications

This study proposed justice as an antecedent factor and

logistics performance as a consequence factor of information sharing—one of the key elements of SCM—and examined their relationship. The findings have the following academic and practical implications.

First, this study examined the three types of justice proposed by Colquitt (2001) as necessary conditions for smooth information sharing. There are many previous studies related to supply chains that examined the role of justice. For example, Lee and Ha's (2020) empirical analysis revealed that interactional justice can strengthen collaboration between firms in the supply chain. Theodorakopoulos et al. (2015) revealed that business relations are made inevitably solid through procedural justice. However, these scholars have explored only one dimension of justice. Since this study included three dimensions—distributive justice, procedural justice, and interactional justice—into a single research model, it could more deeply explore the need for justice in supply chains.

Second, this study offers implications for employees in SCM-related departments by reconfirming the importance of information sharing in the supply chain. Several studies have already proven that information sharing is necessary for successful SCM (Holland, 1995; Lambert & Cooper, 2000). However, some firms are negative toward sharing information due to information leakage and abuse. This perception is bound to have a negative effect on the entire supply chain, possibly resulting in a bullwhip effect. In other words, as overlooking information sharing has a negative impact on the competitiveness of the entire supply chain, it is necessary to improve perception of the importance of information sharing.

Third, this study examined the causalities between the three dimensions of justice, information sharing, and logistics performance. As consumer needs become more diverse in the business environment today, competition is no longer between individual firms but between supply chains. Moreover, considering the ongoing trade wars and conflicts between countries, it has become increasingly important to build robust supply chains. This significance of this study is in that it explored the factors necessary in this context for smooth collaboration between firms in supply chains.

## 6.3. Limitations and Future Recommendations

While this study has provided various academic and practical implications, it has several limitations. First, interactional justice can be further divided into interpersonal justice and informational justice (Colquitt, 2001). However, this study combined them into the single dimension of interactional justice and presented it as an antecedent factor of information sharing. Therefore, subdividing these variables for further research will foster a deeper understanding of the role and importance of justice in supply

chains. Furthermore, this study only proposed information sharing as a factor that connects the three dimensions of justice and logistics performance. In future research, other factors related to justice that can improve logistics performance must be added to examine the relationship from a more macroscopic view.

## References

- Adams, J. S. (1963). Towards an understanding of inequity. *The Journal of Abnormal and Social Psychology*, 67(5), 422–436.
- Adnani, L., Jusuf, E., Alamsyah, K., & Jamaludin, M. (2023). The role of innovation and information sharing in supply chain management and business performance of halal products in tourism destinations. *Uncertain Supply Chain Management*, 11(1), 195–202.
- Anderson, E., & Weitz, B. (1989). Determinants of continuity in conventional industrial channel dyads. *Marketing Science*, 8(4), 310–323.
- Anthony, T. (2000). Supply chain collaboration: Success in the new internet economy. *Achieving Supply Chain Excellence through Technology*, 2, 41–44.
- Bokrantz, J., & Dul, J. (2023). Building and testing necessity theories in supply chain management. *Journal of Supply Chain Management*, 59(1), 48–65.
- Bowersox, D. J., & Daugherty, P. J. (1987). Emerging patterns of logistical organization. *Journal of Business Logistics*, 8(1), 46.
- Brockner, J., & Wiesenfeld, B. M. (1996). An integrative framework for explaining reactions to decisions: Interactive effects of outcomes and procedures. *Psychological Bulletin*, 120(2), 189–208.
- Caney, S. (2001). International distributive justice. *Political Studies*, 49(5), 974–997.
- Chopra, S., & Meindl, P. (2001). Strategy, planning, and operation. *Supply Chain Management*, 15(5), 71–85.
- 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., & 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., Hill, E. T., & De Cremer, D. (2023). Forever focused on fairness: 75 years of organizational justice in personnel psychology. *Personnel Psychology*, 76(2), 413–435.
- Cugueró-Escofet, N., Ficapal-Cusí, P., & Torrent-Sellens, J. (2019). Sustainable human resource management: How to create a knowledge sharing behavior through organizational justice, organizational support, satisfaction and commitment. *Sustainability*, 11(19), 5419.
- De Clercq, D., & Pereira, R. (2020). Knowledge-sharing efforts and employee creative behavior: The invigorating roles of passion for work, time sufficiency and procedural justice. *Journal of Knowledge Management*, 24(5), 1131–1155.
- De Cremer, D., & Van Knippenberg, D. (2002). How do leaders promote cooperation? The effects of charisma and procedural fairness. *Journal of Applied Psychology*, 87(5), 858–866.
- Ellis, K. M., Reus, T. H., & Lamont, B. T. (2009). The effects of procedural and informational justice in the integration of related acquisitions. *Strategic Management Journal*, 30(2), 137–161.
- Gleason, J. M., & Barnum, D. T. (1982). Toward valid measures of public sector productivity: Performance measures in urban transit. *Management Science*, 28(4), 379–386.
- Goel, R. K., Saunoris, J. W., & Goel, S. S. (2021). Supply chain performance and economic growth: The impact of COVID-19 disruptions. *Journal of Policy Modeling*, 43(2), 298–316.
- Griffith, D. A., Harvey, M. G., & Lusch, R. F. (2006). Social exchange in supply chain relationships: The resulting benefits of procedural and distributive justice. *Journal of Operations Management*, 24(2), 85–98.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis*. 7th Edition, Pearson, New York.
- Holland, C. P. (1995). Cooperative supply chain management: The impact of interorganizational information systems. *The Journal of Strategic Information Systems*, 4(2), 117–133.
- Homans, G. C. (1961). The humanities and the social sciences. *American Behavioral Scientist*, 4(8), 3–6.
- Huo, B., Haq, M. Z. U., & Gu, M. (2021). The impact of information sharing on supply chain learning and flexibility performance. *International Journal of Production Research*, 59(5), 1411–1434.
- Huo, B., Liu, X., & Li, S. (2023). The impact of justice on information sharing and innovation performance: A social exchange theory perspective. *Journal of Business & Industrial Marketing*, 38(11), 2519–2532.
- Ibragimova, B., Ryan, S. D., Windsor, J. C., & Prybutok, V. R. (2012). Understanding the antecedents of knowledge sharing: An organizational justice perspective. *Informing Science*, 15, 183–205.
- Imamoglu, S. Z., Ince, H., Turkcan, H., & Atakay, B. (2019). The effect of organizational justice and organizational commitment on knowledge sharing and firm performance. *Procedia Computer Science*, 158, 899–906.
- Keebler, J. S., & Plank, R. E. (2009). Logistics performance measurement in the supply chain: A benchmark. *Benchmarking: An International Journal*, 16(6), 785–798.
- Lambert, D. M., & Cooper, M. C. (2000). Issues in supply chain management. *Industrial Marketing Management*, 29(1), 65–83.
- Lee, C., & Ha, B. C. (2020). The impact of interactional justice and supply-chain collaboration on sustainable SCM performance: The case of multinational pharmaceutical firms. *The Journal of Asian Finance, Economics and Business*, 7(2), 237–247.
- Lee, C., & Ha, B. C. (2021). Interactional justice, informational quality, and sustainable supply chain management: A comparison of domestic and multinational pharmaceutical companies. *Sustainability*, 13(2), 998.
- Liu, Y., Huang, Y., Luo, Y., & Zhao, Y. (2012). How does justice matter in achieving buyer–supplier relationship performance? *Journal of Operations Management*, 30(5), 355–367.
- Lotfi, Z., Mukhtar, M., Sahran, S., & Zadeh, A. T. (2013). Information sharing in supply chain management. *Procedia Technology*, 11, 298–304.
- Mohr, J., & Spekman, R. (1994). Characteristics of partnership success: Partnership attributes, communication behavior, and conflict resolution techniques. *Strategic Management Journal*,

- 15(2), 135–152.
- Mohr, J. J., Fisher, R. J., & Nevin, J. R. (1996). Collaborative communication in interfirm relationships: Moderating effects of integration and control. *Journal of Marketing*, 60(3), 103–115.
- Morgan, R. M., & Hunt, S. D. (1994). The commitment-trust theory of relationship marketing. *Journal of Marketing*, 58(3), 20–38.
- Narasimhan, R., Narayanan, S., & Srinivasan, R. (2013). An investigation of justice in supply chain relationships and their performance impact. *Journal of Operations Management*, 31(5), 236–247.
- Nazifa, T. H., & Ramachandran, K. K. (2018). Exploring the role of information sharing in supply chain management: A case study. *Journal of System and Management Sciences*, 8(4), 13–37.
- Parker, R. J., Kohlmeyer III, J. M., Mahenthiran, S., & Sincich, T. (2014). Procedural justice and information sharing during the budgeting process. In *Advances in Management Accounting* (pp. 93–112). Emerald Group Publishing Limited.
- Prajogo, D., & Olhager, J. (2012). Supply chain integration and performance: The effects of long-term relationships, information technology and sharing, and logistics integration. *International Journal of Production Economics*, 135(1), 514–522.
- Premus, R., & Sanders, N. R. (2008). Information sharing in global supply chain alliances. *Journal of Asia-Pacific Business*, 9(2), 174–192.
- Purnama, Y. H., Tjahjono, H. K., Assery, S., & Dzakiyullah, N. R. (2020). The relationship of organizational justice on job satisfaction and job performance in banking company. *International Journal of Scientific and Technology Research*, 9(3), 4012–4015.
- Stank, T. P., Goldsby, T. J., Vickery, S. K., & Savitskie, K. (2003). Logistics service performance: Estimating its influence on market share. *Journal of Business Logistics*, 24(1), 27–55.
- Tajima, E., Ishigaki, A., Takashima, R., Nishida, H., & Okamoto, T. (2023). Effectiveness of a multi-agent cooperation game in a multi-stage supply chain: Beer game experiment. *Journal of Japan Industrial Management Association*, 73(4E), 234–250.
- Theodorakopoulos, N., Ram, M., & Kakabadse, N. (2015). Procedural justice in procurement management and inclusive interorganizational relations: An institutional perspective. *British Journal of Management*, 26(2), 237–254.
- Thibaut, J., & Walker, L. (1975). *Procedural justice: A psychological analysis*. Hillsdale, N.J.: Lawrence Erlbaum, 1975.
- Tyler, T. R., & Allan Lind, E. (2001). Procedural justice. *Handbook of Justice Research in Law*, 65–92.
- Wang, Q., Craighead, C. W., & Li, J. J. (2014). Justice served: Mitigating damaged trust stemming from supply chain disruptions. *Journal of Operations Management*, 32(6), 374–386.
- Wei, S., Ke, W., Lado, A. A., Liu, H., & Wei, K. K. (2020). The effects of justice and top management beliefs and participation: An exploratory study in the context of digital supply chain management. *Journal of Business Ethics*, 166(1), 51–71.
- Welch, J. F., Bossidy, L. A., & Hood, E. E. (1990). To our shareholders. *General Electric 1990 Annual Report*, 1–4.
- Wen, S., Tang, H., Ying, F., & Wu, G. (2023). Exploring the global research trends of supply chain management of construction projects based on a bibliometric analysis: Current status and future prospects. *Buildings*, 13(2), 273.