
| RESEARCH ARTICLE

Perception of Partnership among Freight Forwarder Companies in Supporting SDGs for the Sustainability of the Logistics System in Indonesia during the Covid 19

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| ABSTRACT

Partnership sustainable development goals are increasingly being studied from different perspectives; however, the perceptions of road freight companies have received little attention. This study explores the views of representatives of small and medium road transport companies on sustainable partnership development goals in Indonesia. This type of research uses quantitative research methods. Data were obtained from questionnaires distributed to 150 employees of freight forwarder companies in Central Java which were determined using the non-probability sampling method. This type of research uses quantitative research methods. Data were obtained from questionnaires distributed to 150 employees of freight forwarder companies in Central Java which were determined using the non-probability sampling method. The results of the study show that Transactional Flexibility has a positive effect on Firm performance, Operational Flexibility has a positive effect on Firm performance, and Strategic Flexibility has a positive effect on Firm performance.

| KEYWORDS

Freight forwarder, partnership, Transactional Flexibility, Operational Flexibility, Strategic Flexibility, Firm performance

| ARTICLE INFORMATION

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1. Introduction

The Covid-19 pandemic has had a direct impact on logistics companies involved in the movement, storage and flow of goods (Notteboom et al., 2021). The existence of restrictions on the movement of people indirectly reduces the movement of goods by the mode used (land, sea and air). Nearly 95.6% of the logistics service industry experienced a decline in their business income. However, it was noted that not all logistics service industries were negatively affected by the Covid-19 Pandemic (Hanafi, 2020). Therefore, it is necessary to map the affected and surviving industries so that they can identify and develop business recovery strategies after the Covid-19 pandemic.

The logistics service industry business recovery strategy is highly anticipated because it contributes to the 2019 Gross Domestic Product (GDP) of 5.57% (BPS, 2020). and become the backbone of trading and other industries. Without the presence of an appropriate recovery strategy, there will be an increase in broad economic risks.

Road transport supports industrial (e.g., manufacturing and construction) and service (e.g., trade and maintenance) industries, and its operation is critical to the functioning of society, as recently highlighted during the COVID-19 pandemic (Rapaccini et al. 2020). In 2019, the turnover of Indonesian road transport companies decreased, with logistics representing 12% of Indonesia's gross domestic product (GDP). These statistics highlight the importance of road transport to the Indonesian economy and the need to understand and develop the industry in the future (McCarthy et al. 2012).

Enterprises in the road transport sector are usually small in terms of the number of people employed, their turnover, and the number of vehicles operated (Joshi & Moore, 2004). This is also the case in Indonesia, with most companies operating between one and three vehicles (Rapaccini et al. 2020). In Indonesia, small and medium enterprises (SMEs) are defined as companies with less than 250 employees. Thus, SMEs represent around 90% of turnover among Indonesian road freight companies (Tambunan, 2009). However, there is a trend towards larger logistics companies in Indonesia's road transport sector, with the number of registered companies declining in recent years while the total number of employees across all logistics companies has increased. The increasing size of the industry and the increasing number of employees have raised concerns about a future shortage of drivers in Indonesia (Telfer, D. J., & Wall, G. (2000), a problem that has been reported in several other countries, including Ireland and the United States.

Information Technology (IT) flexibility is one of the most widely used concepts to identify a company's ability to cope with the variations created by its business environment and the current Covid pandemic conditions. With the recognition of IT flexibility as a multidimensional concept, previous research has focused on identifying and validating the dependence of firm performance on the dimensions of IT flexibility (Sánchez & Pérez, 2005).

To date, no research has considered the perception of partnership among road freight companies from the Indonesian context, where there are unique factors associated with the operating environment, especially the tropical climate and challenging road conditions (Bakker et al. 2017). Thus, there is a need to understand the perceptions and readiness of freight forwarding companies for partnerships. Investigating this issue will highlight the barriers that need to be addressed to realize the benefits of partnership, understand the political issues, and ultimately help facilitate the shared use of vehicles by freight forwarding logistics companies in the future. This study addresses the following questions regarding partnership from the perspective of small and medium road haulage companies in Indonesia.

To answer these questions, a survey was conducted among Indonesian road hauling companies. Since the majority of Indonesian road companies are employed by small and medium-sized companies, it was decided to focus on the perceptions of representatives of these companies. In addition, the possible challenges and perceptions faced by large companies are different.

To support partnerships, logistics companies see the importance of increasing the capacity to engage in relationships: the ability to connect and interact effectively and respectfully with people and stakeholders from various backgrounds, diverse cultures and with different interests, inside and outside logistics companies, at home as well as across distances, businesses, sectors, countries and cultures (Aarseth et al. 2014). More recently, the idea of relational intelligence has been popularized by psychotherapist Esther Perel as a way to understand, value, and improve various types of relationships (Stott & Murphy, 2020). Perel's success in connecting people and logistics companies shows how we relate to one another at home, work, and in the wider community is a critical ingredient for more cooperative and sustainable lives, careers, and societies.

2. Methodology

Because the dimensions of logistics firm partnerships differ at different levels for different logistics firms, the current study requires each respondent to acquire sufficient interfirm and functional understanding and experience in all areas and levels. Our rationale is that senior executives will have a more integrative and strategic perspective, but they may not collectively have an in-depth understanding or experience of current work systems. This type of research uses quantitative research methods. Data were obtained from questionnaires distributed to 150 employees of freight forwarder companies in Central Java which were determined using the non-probability sampling method. Data collection method by distributing questionnaires using a Likert scale. The data analysis method used in this study is the structural equation model. The path analysis used in this study is partial least squares (PLS), using Smart PLS 3.0 software. Measurement Model or Outer Model There are three criteria for measuring the outer model, namely Convergent Validity, Discriminate Validity and Composite Validity from the measurement model with reflection indicators which are assessed based on the correlation between item scores calculated by PLS. The measure of individual reflection is said to be high if it has a correlation of more than 0.70 with the construct being measured. According to Fitri et al.(2021), for research in the early stages of developing a measurement scale, a loading value of 0.5 to 0.6 is considered sufficient. Convergent validity can also be determined through the Average Variance Extracted (AVE). An instrument is said to meet the convergent validity test if it has an Average Variance Extracted (AVE) of more than 0.500. Calculations that can be used to test the reliability of the variables forming the indicators are Cronbach's alpha and composite reliability. The test criteria state that if the composite reliability is greater than 0.700 and Cronbach's alpha is greater than 0.600, then the variable is declared reliable. Discrimination The validity of the measurement model with the reflection indicator is assessed based on the Cross Loading measurement, which is better than other block sizes (Henseler et al. 2015).

3. Results

Respondents were met by distributing questionnaires obtained from 150 respondents who met the requirements in Semarang, Pekalongan, Jogja, Tegal, Pati, and Jepara. There were 150 respondents whose profiles are illustrated in Table 1. Out of the 150 respondents who took part in this survey, the majority were male (78%), domiciled in Greater Jakarta (85%), with undergraduate education (79%) with bachelor's degrees. Educational background included computer science by 43%. The profile of these respondents is relevant to the purpose of this study to analyze the relationship between Transactional Flexibility, Operational Flexibility, Strategic Flexibility and Firm performance.

Table 1. Respondent Profile

Demographic Profile		Percentage
Gender	Male	78%
	Female	22%
Location	Semarang	85%
	Pekalongan	8%
	Jogja	3%
	Tegal	1%
	Pati	1%
	Jepara	1%
Education	S1	79%
	Diploma	15%
	Senior High School	5%
	SMK	1%
Background of education	Computer Science	43%
	Logistics	36%
	Management	15%
	Accountancy	2%
	Information Systems	4%

In this study, the outer reflective model used is an indicator of reliability (outer loading), construct reliability (Cronbach's alpha and composite reliability), construct validity (Average Variance Extracted-AVE), and discriminant validity (Heterotrait-Monotrait Ratio) (Ab Hamid et al. 2017). The outer model test results in Table 2 show that all reliable indicators in the research model are in accordance with the required outer loading value.

Table 2. Construct Reliability and Validity

Variable & Indicators	Outer Loading	CA	CR	AVE
Transactional Flexibility				
TF1 : Use of advanced hardware such as computers, sensors, meters, servers, etc.	0.841	0.926	0.945	0.657
TF2 : Use of advanced software and applications such as logistics portals, e-mail, etc.	0.853			
TF3 : Use of advanced networks such as internet, LAN, telephone, text	0.736			
TF4 : Secure use of IT networks	0.845			
Operational Flexibility				
OF1 : Share accurate and timely information	0.825	0.924	0.935	0.624
OF1 : Gain good visibility of the supply chain process	0.756			
OF3 : Complete transactions quickly	0.836			

OF4	: Integrate and automate supply chain processes	0.768			
OF5	: Optimizing supply chain processes with external companies	0.753			
Strategic Flexibility					
SF1	: establishing and changing our information links to supply chain partner providers	0.826			
SF2	: building and changing our information relationships with new supply chain partners	0.892	0.905	0.936	0.642
SF3	: explore innovative ways of using ICT in offering new products or services	0.790			
SF4	: Internally integrate sourcing, transportation, service processes, and other areas	0.747			
Firm performance					
FP1	: Transaction costs for supply chain operations are reduced	0.753	0.842	0.894	0.608
FP2	: The level of service provided to customers is improved	0.742			
FP3	: The speed of supply chain operations is increased	0.837			
FP4	: Quality of service to customers is improved	0.873			
FP5	: Value creation in the supply chain is enhanced	0.822			

Table 2 shows that all indicators have outer loading > 0.70 as needed, with Cronbach alpha and composite reliability greater than 0.7, which indicates the internal consistency of the construct is reliable. AVE measures a convergent validity check, where all values have an AVE of 0.50, indicating that all constructs explain at least 50 percent of the item variance and therefore establish validity (Hair et al., 2019).

To test discriminant validity, the Heterotrait-Monotrait Ratio (HT/MT) is used because this method is known to have a more precise value (Hair et al., 2019). Referring to Voorhees et al. (2016), the recommended threshold value is 0.85 to establish that each construct indicator is conceptually different. Table 3 (HT/MT Ratio) shows that all HT/MT values are far below the 0.85 thresholds for all variables. Thus, it is concluded that all the indicators used in this research model have sufficient discriminatory power to measure their respective constructs.

Table 3. Discriminant Validity: HT/MT Ratio

Variables	Transactional Flexibility	Operational Flexibility	Strategic Flexibility	Firm performance
Transactional Flexibility				
Operational Flexibility	0.725			
Strategic Flexibility	0.742	0.744		
Firm performance	0.736	0.750	0.724	

It can be concluded that all indicators in this research model have been well discriminated against and can measure their respective constructs. Each indicator can accurately and specifically measure its construct. There are four parameters to test the reliability and validity of the outer model above, namely reliability indicators (outer loading), construct reliability (Cronbach's alpha and composite reliability), construct validity (average variance extract), and discriminant validity (Heterotrait-Monorait ratio).

Because the goodness of fit is not used in PLS-SEM, as suggested by Hair et al. (2019), this study uses R^2 to measure prediction accuracy and Q^2 cross redundancy values to measure the relevance of the predictions of the testing model. As a benchmark, R^2 values of 0.75, 0.50, and 0.25 can be considered substantial, moderate, and weak (Hair et al., 2019). Transactional Flexibility ($R^2 = 0.674$; $Q^2 = 0.536$), Operational Flexibility ($R^2 = 0.754$; $Q^2 = 0.440$) and Strategic Flexibility ($R^2 = 0.741$; $Q^2 = 0.380$) (Hair et al., 2019).

Hypothesis testing with the bootstrap procedure was carried out to determine the effect of variables and determine whether the hypothesis proposed by this study was supported. A bootstrap approach is used to determine the significance of the data (Johnston & Faulkner, 2021). The t-statistic cut-off value > 1.645 (one-tailed) with an alpha of 0.05 is used as a criterion to determine whether the hypothesis is supported or not.

Table 4. Significant and Coefficient

Hypothesis	Standardized Coefficient	T-statistics	P-values	Result
Direct effect				
H1: Transactional Flexibility -> Firm performance	0.217	3.988	0.003	Hypothesis Supported
H2: Operational Flexibility -> Firm performance	0.123	15.255	0.000	Hypothesis Supported
H3: Strategic Flexibility -> Firm performance	0.133	5.317	0.000	Hypothesis Supported

4. Discussion

It was found that the value of the T-statistic (3.988) > 1.96 , and the value of the original sample was 0.217 (positive sign). From these results, the hypothesis which states that Transactional Flexibility has a positive effect on Firm performance is accepted. Ma and Jin (2016) investigated the impact of investment scale in driving the relationship between financial flexibility and the performance of companies listed on the China Stock Exchange in the period 2010-2013. The research was conducted on a sample of 1496 observations. The research findings reveal that there is a large influence on financial flexibility on both: investment and performance. Thus, Chinese companies tend to emphasize investment expansion to improve company performance. Administrative leadership seeks to make cash flow flexible throughout the organization; this means that financial flexibility is one of the most important aspects for company managers, especially in determining the capital structure and amount of debt (Meier et al., 2013; Arslan-Ayaydin et al., 2014). However, financial flexibility is considered a source of anxiety for business directors and financial institutions because it represents the capacity to avoid investment shortages and financial crises (Denis, 2011; Lang & Jagtiani, 2010).

It was found that the value of the T-statistic (15.255) > 1.96 , and the value of the original sample was 0.123 (positive sign). From these results, the hypothesis which states that Operational Flexibility has a positive effect on Firm performance is accepted. In line with this, several empirical studies have shown that manufacturing flexibility is positively related to product innovation (Mishra ET AL., 2014; Menor et al., 2007). Similarly, other streams of research have proven a positive relationship between product innovation and organizational performance (Damanpour et al., 2009). In their contingent analysis of manufacturing flexibility through case studies, Hutchison and Das (2007) show that both the time required to introduce a new product into production and the modification of an existing product is increased by the acquisition of an advanced manufacturing system.

It was found that the value of the T-statistic (5.317) > 1.96 , and the value of the original sample was 0.133 (positive sign). From these results, the hypothesis which states that Strategic Flexibility has a positive effect on firm performance is accepted. Research examining the strategic impact of strategic flexibility has shown that strategic flexibility contributes to competitive advantage at different organizational levels. At a tactical or functional level, strategic flexibility is now recognized as vital for several value-creating operational or manufacturing strategies, including mass customization, time to market, operational excellence, lean manufacturing, and stockless inventory (Zhang, 2005; Zhang, 2006). At the corporate level, because the development and

implementation of strategic flexibility involves continuous improvement in the company's organizational processes and technologies as well as the continuous learning of new organizational knowledge, capabilities, and skills (Perez-Valls et al. 2016), strategic management researchers rooted in a resource-based view of competitive advantage consider strategic flexibility as a high-level (dynamic) capability that allows a firm to adapt and change over time to maintain its long-term competitiveness

5. Conclusion and Limitations

The purpose of this study is to determine the partnership relationship between freight forwarder companies in Central Java. Based on the results of hypothesis testing shows, Transactional Flexibility has a positive effect on Firm performance, Operational Flexibility has a positive effect on Firm performance, and Strategic Flexibility has a positive effect on Firm performance. The limitations of this study include that the sampling technique was carried out using a non-probability sampling technique; namely, the representativeness of the sampling results could not be measured. We cannot know how well our sample represents the population. In fact, samples are usually not representative of the entire population.

The update of this research is that, to date, no research has considered the perception of partnership among road transport companies from the Indonesian context, where there are unique factors associated with the operating environment, especially the tropical climate and challenging road conditions.

This study has limitations, including the relatively small number of samples and the non-probability sampling method, so the representativeness of the population is unknown. It is difficult to estimate sample bias. The results of the study could not be measured for the level of trust. It cannot be used to draw conclusions from the population.

Suggestions for logistics competition conditions in the current economic era demand new breakthroughs for logistics companies in Indonesia, especially related to service improvement and business innovation. Competition is getting tougher with many leading Logistics Companies in Indonesia, which is a challenge for these Logistics Companies.

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