

Does Service Climate Matters for Supply Chain Resilience and Performance of Logistics Service Provider?

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Abstract

Service climate constitutes a critical factor for logistics service provider (LSP) as a service company especially during COVID-19 pandemic in order developing its supply chain resilience and performance. Service climate refers to logistics service providers (LSP) employees' perceptions about how their companies appreciate them if they provided the excellent service for their customers. Supply chain resilience refers to capability of logistics service providers (LSP) in preventing disruptions and reducing the impact of disruptions in accordance with the extent of their readiness, quick response, and recovery. Whereas the performance relates to the logistics service providers' achievement in certain period in terms of operation cost, service level, service speed, and customer value. The study intends to investigate the mediation effect of supply chain resilience on the effect of service climate on firm (LSP) performance. The service climate is an exogenous variable, supply chain resilience is a mediating variable, and LSP-performance is an endogenous variable. This study used cross-sectional, survey, and quantitative methods. Purposive sampling used in this study with sample size consist of 48 respondents and questionnaires or g-form as tool for collecting data. SEM-PLS (Smart-PLS) was used in this study to process the data and examine the mediation effect and further analysis its implication and discussion. The results indicated that supply chain resilience partially mediate the effect of service climate on LSP-performance.

Keywords: Service Climate, Supply Chain Resilience, Firm Performance, Logistics Service Provider

1. Introduction

84% of companies report discussed the resilience (PwC, 2021). Resilience constitutes one of very important firms' capabilities to sustain their business performance in the disruption era. It was required to meet customer demand that have changed due to disruption in order that achieving superior customer value and service quality. Therefore, business resilience requires support specific business culture that reflects flexibility, adaptability, proactive, innovative, anticipative, etc. Some studies showed that corporate culture had positive and significant impact on business resilience (Sawalha, 2015; Fietz, Hillmann, and Guenther, 2021) and business performance (Chen and Kao, 2014; Cheng, Hong, and Yang, 2018; Tian, Tang, and Tse, 2022). Whereas business resilience had positive and significant effect on business performance (Beuren, dos Santos, and Theiss, 2022; Baral et al., 2022). Whether or not service climate as part or specific condition of corporate culture and supply chain resilience as part of business resilience have positive and significant impact on firm performance? Does the supply chain resilience mediate the effect of service climate on firm performance? These are the questions that will be answered in this study.

Based on the research questions, this study aims to investigate the effect of service climate has positive and significant effect on firm performance through supply chain resilience. This study tries to examine four hypotheses, namely

encompass service climate has impact on supply chain resilience and firm performance, supply chain resilience has impact on firm performance, and service climate has impact on firm performance through supply chain resilience. Service climate and service supply chain resilience constitute a novelty in the research's model.

1.1 Objectives

This study intends to investigate the impact of service climate on firm (logistics service provider) performance through supply chain resilience. The hypotheses examinations encompass four hypotheses, namely three direct or partial effects (the effect of service climate on service supply chain resilience; the effect of service supply chain resilience on firm performance; the effect of service climate on firm performance) and one indirect effect (the effect of service climate on firm performance through service supply chain resilience).

2. Literature Review

2.1. Service Climate

Service businesses that try to deliver excellent services for their customers need a strong service culture that is continuously strengthened and developed by top management to align with the business strategy. Corporate culture relates to the basic assumptions and values that lead firm's actions and encompass shared perceptions about what is important things, right and wrong, what works and what doesn't, important beliefs, and relationships (Wirtz and Lovelock, 2022). Service culture constitutes shared perceptions, values, and beliefs of why those things are important in the business. While culture is more general and values-focused, corporate climate is the part of the corporate's culture that can be felt and seen. It constitutes a culture interpreted into more concrete aspects that can be faced by the employees, which then in turn drives employee behavior and customer outcomes. It represents the shared perceptions of employees about the procedures, practices, and types of behaviors that get supported and rewarded in a particular setting. A climate must relate to specific thing in the business such as service, innovation, support, or safety. The basic features of service climate encompass clear marketing goals and a strong drive and support to be the best in delivering superior customer value or service quality (Wirtz and Lovelock, 2022).

Hong et al (2013) defines service climate as employees' consensual perceptions regarding organization's emphasis on service quality. When performing their jobs, employees can perceive their surroundings and the situation. Cheng et al (2018) also proposed that service climate is employees' perception on the situation when they are performing their work. These studies showed that service climate is how employees' perceive the internal situation of their organization or the internal service quality. These arguments are in line with Hoang et al (2018) that found several drivers of service climate and they are internal process especially regarding employees' perception on internal processes, this study was performed in emerging market. Many researchers emphasized more on the internal situation of service climate. However, Bani-Melhem et al (2022) in their studies proposed that service climate can also affect customers because employees' perception when performing their work can affect customers, as such then service climate actually affect employees' performance. Another study by Study by Navon et al (2020) showed that service climate does not only impact customers but also has emotional toll on employees, this means that employees' perception is also important in studying service climate. Jia et al (2016) also found that service climate can predict service evaluations by customer units. Previous researches showed that it is important to study the internal aspect which is employees' perception as well as the external impact which is customers when researching about service climate. Employees' perception can affect their interaction with customers and can be felt by customers.

As proposed by Bani-Melhem et al (2022), service climate can also affect performance. Previous researches also found this such as Chen & Kao (2014) found that service climate has significant relationship with performance. Another research by Fung et al (2017) found that service climate has a significant relationship with performance and another variable can mediate the relationship, the mediating variable was internal service quality. These researches showed that service climate can affect performances, and furthermore service climate's relationship with performance can be mediated by another variable. To measure this, it is necessary to have good measurement in measuring service climate. Kang et al (2018) used customer orientation, work facilitation and managerial support to measure service climate as adapted from He et al (2011). In this research, service climate will measure from employees' perspective and

customers' because it is important to measure service climate from both perspectives. So, service climate will be measured using customer expectation, employees' perception about service quality, and customer position.

H₁: Service climate has a positive effect on supply chain resilience

H₂: Service climate has a positive effect on firm (LSP) performance

2.2. Supply Chain Resilience

Business resilience is a firm's capability that will be able to assist the company withstand disruption and reduce the impacts of a crisis. The more prepared the company to manage disruption, the less destructive and long-lived the crisis will be for the business. The business resilience, in the long-term, will strengthen the company's ability in responding and adapting through four aspects, namely technology and operational, workforce, data, and financial (PwC, 2021). It relates to company's capabilities in competitiveness, flexibility, anticipation, team empowerment, robustness, resourcefulness, redundancy, and rapidity (Shani, 2020; Duchek, 2020; Liu and Lee, 2018). Supply chain resilience is a businesses' capability in retaining, executing, adapting, and restoring their supply chain in consequence of disruptions in order achieve their sustainability and performance (Ivanov, 2021; Ivanov, 2020); avoiding the disruptions impact and also quickly recover from the disruptions. The resilient supply chain capabilities encompass end-to-end supply chain visibility, redundancies, and recovery. The companies, through supply chain, will be more productive, efficient, and risk reduction (Ivanov, 2021; Ivanov, 2020). The businesses will be able to enhance their supply chain resilience by improving redundancy, developing flexibility, and changing culture. The important elements of supply chain resilience encompass risk management, redundancy, flexibility, agility, visibility, security, collaboration, trust, robustness financial strength, information sharing, supply chain design or re-engineering, and knowledge management (Naimi et al., 2020; Chowdhury and Quaddus, 2016; Chowdhury, Quaddus, and Agarwal, 2019).

In this study, the supply chain resilience defines the ability of logistics service firms in managing their supply chain members to fulfill unpredictable challenges, respond, and recover quickly to potential disruptions to sustain their performance. The indicators used in this research encompass accurate information, real-time information, relevant information, collaborative plan, and flexibility. The accurate information is the ability of logistics service companies in exchanging accurate information with their customers. The real-time information refers to ability of logistics service companies to exchange real-time information with their customers. The relevant information is the ability of logistics service companies to exchange their relevant information with their customers; the collaborative plan constitutes the ability of logistics service companies to arrange supply chain planning with their customers collaboratively; the flexibility constitutes the ability of logistics service companies in developing the flexibility of their operating processes.

H₃. Supply chain resilience has a positive effect on firm (LSP) performance.

H₄. Supply chain resilience mediates the effect of service climate on firm (LSP) performance

2.3. Firm Performance

Firm's performance is a common variable to indicate whether the factor has an effect or not. In general, firm's performance could be defined as the main outcome and well-established measure for extant work in many fields. Abundant previous research had measured firm's performance. Firm's performance could be measured using financial and marketing measures, customer satisfaction and employee satisfaction (Yau et al., 2007). Financial measures include profit level, profit margin, and return on investment, while marketing measures are sales volume and market share achieved. In the area of strategic, dynamic capabilities (Teece, Pisano, and Shuen, 1997) proved to increase firm's performance. In the area of supply chain, behavioral antecedents such as trust, and commitment (Tsanos and Zografos 2006) proved to increase firm's operational performance. Similarly, Shin, Park, and Park (2019) also proved that partnership commitment increases firm's operational and innovation performance. In addition, stakeholder relationship (Berman et al., 1999) and service climate (Hong et al., 2013) proved to have effect on firm's financial performance. In this paper, we focus on supply chain area, especially supply chain resilience and its service climate. Besides having a significant effect on firm's financial performance, the service climate also has an effect on service performance (Chen and Kao, 2014) and employees' performance (Lee, Park, and Yoo, 1999). Thus, we propose that service climate has significant effect on firm's performance. As we examine firm's performance in logistics service, we will measure firm's performance through finance, customer, internal process, and growth.

3. Methods

This study constitutes survey research due to using sampling technique in the data collection. This study is also cross-sectional or one-shot research due to data are gathered just once (stretched though it may be over a period of days, weeks, or months) to answer the research question. This research used quantitative approach due to using numerical data (Likert scale) in collecting and analyzing the data (Bougie and Sekaran, 2020; Hair, Page, and Brunsveld, 2020). Smart-PLS used in the processing data. The unit of analysis is organization (logistics service provider). The questionnaire developed based on variable operationalization, namely three variables (exogenous variable, intervening variable, and endogenous variable) and twelve indicators (supply chain adaptability consist of three indicators, supply chain resilience consists of five variables, and company performance consist of four indicators).

4. Data Collection

Electronic questionnaires (g-form) used in the data collection with sample size consist of 48 respondents. The profile of respondents encompass about 21% the respondents had marketing competencies, 72 % the respondents had more than 10 years working experience; 41% the respondents had information technology competencies, 33% the respondents had operations and supply chain competencies, and 5% the respondents had other competencies; 37% the respondents as logistics service provider's employees, 11 % the respondents as warehousing company's employees, 9% the respondents as transportation company's employees, and 43% the respondents are other companies' employees; 26% the respondents as senior managers , 41% the respondents as managers, and 33% the respondents are other positions. Data collection used questionnaires with purposive sampling technique. The data collection conducted for two months.

5. Results and Discussion

Based on Table 1, Table 2, Figure 1, and Figure 2, the average variance extracted (AVE) scores showed higher than 0.5, It mean that the data has good validity. Whereas the composite reliability (CR) scores were higher than 0.7 and the Cronbach's Alpha scores were higher than 0,7, It mean that the data has good reliability. In line with the hypotheses examination results indicated that service climate had positive and significant effect on firm performance through supply chain resilience. The mediation effect constituted a partial mediation, namely the service climate had positive and significant effect both directly on firm performance and indirectly through supply chain resilience.

The study's results (Figure 1 and 2) showed that the supply chain resilience mediated the effect of service climate on firm performance significantly. This mean that service climate required to support improvement of supply chain resilience for improving logistics service firms' performance in Indonesia. The service climate can be reflected through their employees' orientation that continuously improving service quality for their customers, more concerned about their customer expectations, and prioritize their customers' interest. The employees' characteristics will be able to support supply chain resilience particularly in disruption condition through their ability in sharing relevant information with their customers, sharing real-time information with their customers, sharing accurate information with their customers, carrying out collaborative planning with their customers, adapting their flexibility operation process. The service climate and supply chain resilience will be able to improve the logistics service providers in Indonesia in operation cost, service level, service speed, and customer value. In addition, service climate will be also able to support technology application in the logistics service firms particularly blockchain applications that will have positive impact on their supply chain resilience.

The study's results (Table 1 and 2; Figure 1 and 2) in line with previous studies' results such as that corporate culture had positive and significant impact on business resilience (Hosseini, 2018; Sawalha, 2015; Fietz, Hillmann, and Guenther, 2021) and business performance (Chen and Kao, 2014; Cheng, Hong, and Yang, 2018; Tian, Tang, and Tse, 2022); Business resilience had positive and significant effect on business performance (Beuren, dos Santos, and Theiss,2022; Baral et al., 2022). Service climate had positive and significant effect on internal service quality (Fung et al., 2017); psychological capital, quality of work life, and turnover intention (Kang, Busser, and Choi, 2018); service performance and employee attitude (Chen and Kao, 2014; Hong et al., 2013); employee happiness (Bani-Melhem, Al-Hawari, and Quratulain, 2020).

5.1 Numerical Results

Table 1. Construct Reliability and Validity

Description	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
LSP-Performance	0.893	0.897	0.926	0.757
SC-Resilience	0.928	0.929	0.945	0.776
Service Climate	0.864	0.867	0.917	0.787

Table 2. Indirect Effects

Description	LSP-Performance	Service Climate	SC-Resilience
LSP-Performance	-	-	-
SC-Resilience	-	-	-
Service Climate	0.412	-	-

5.2 Graphical Results

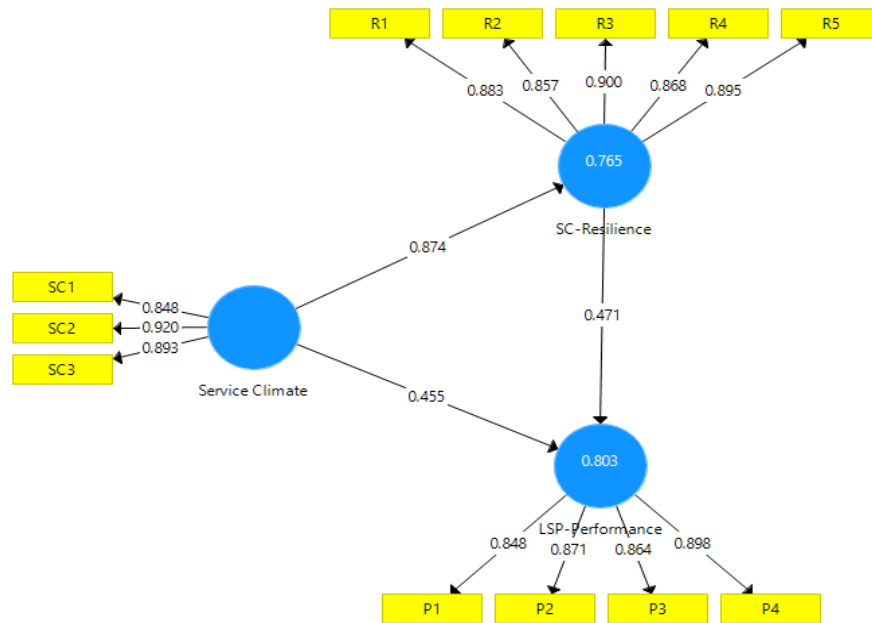


Figure 1. PLS-Model (Algorithm)

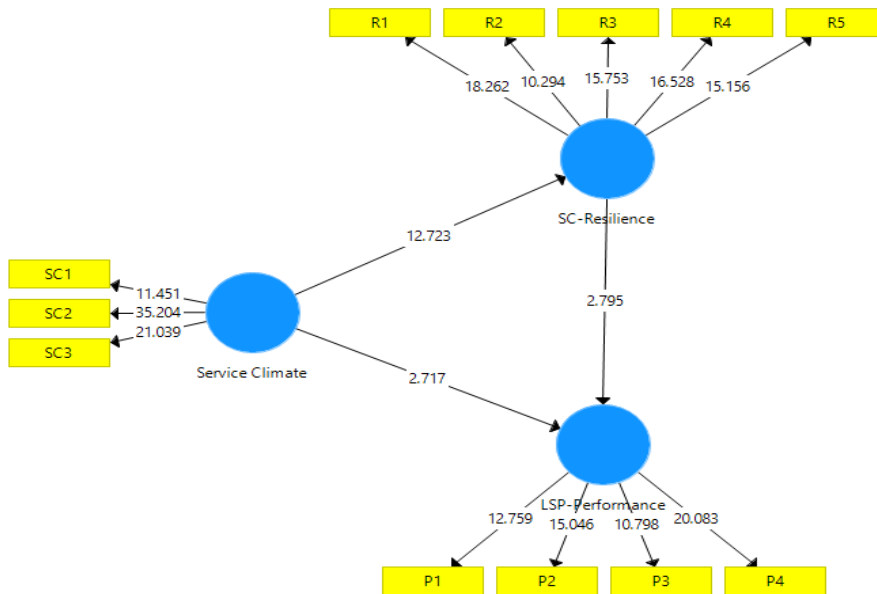


Figure 2. PLS-Model (t-statistic)

5.3 Proposed Improvements

In improving the performance of logistics service companies, especially during a pandemic or disruption, these companies must improve their service climate. By improving their service climate, either directly or indirectly through supply chain resilience, they will be able to improve their performance. Thus, service climate will be able to increase the supply chain resilience of these companies.

5.4 Validation

Tabel 3. Outers Loading

Description	LSP-Performance	Service Climate	SC-Resilience
Ad1		0.848	
Ad2		0.920	
Ad3		0.893	
P1	0.848		
P2	0.871		
P3	0.864		
P4	0.898		
R1			0.883
R2			0.857
R3			0.900
R4			0.868
R5			0.895

6. Conclusion

Supply chain resilience mediated the effect of service climate on performance of logistics service company (LSP-performance) significantly. The mediation effect constitutes partial mediation, this meant that in improving performance of logistics service provider can be conducted through improvement of their service climate directly or indirectly through their supply chain resilience.

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