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The Mediating Role of Logistics Service Capability on Chinese Logistics Performance

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Abstract

The Chinese logistic industry has shown remarkable potential for expansion and growth. The logistics performance should be further improved to attract new businesses from the neighboring countries. Various logistic literature demonstrated the impact of logistics service capability on logistics performance from the marketing perspective. However, the literature lacks in mediating effects of logistics service capability on logistics performance. The primary purpose of this paper is to examine a theoretical model based on the resource-based view (RBV) theory. By investigating 412 Chinese leading logistics companies, the present study attempts to provide the statistical results for a better understanding of how logistics service capability mediates the effects of logistics capabilities, inter-firm relationships and intra-firm resources on logistics performance. The implications of the study as well as the limitations of the study and future research are also discussed.

Keywords: *China, Logistic, Performance, Capability, Inter-firm Relationships, Intra-firm Resources.*

Introduction

Chinese logistics has become the emerging industry and considered as a pathway for the promotion of regional economic growth (Hwang, Hong, & Lee, 2017). However, the logistics industry of China is confronting multiple challenges in terms of profit generation and survival in the competitive market (Lai, Wang, & Fan, 2013; Yang, Yang, Lirn, & Lirn, 2017). In recent years, Chinese government emphasised on the development of compact domestic logistics systems to facilitate the cross-border business facilitation (CFLP, 2018) whereas, percentage of gross domestic product (GDP) of total Chinese logistics expenditure is more than twice in various developed countries, such as Germany and Japan (World Bank, 2017). Thus,

lower logistic performance still impedes the development and competitiveness of China's logistics industry as Yang et al., (2017) opined that one of the main issues is lower logistics service capabilities that hinder the firm strengths to overcome the weaknesses for better logistics performance. Thus, in order to mitigate the issues and face the challenges, firms need to improve the capabilities in logistics service process through a series of practical ways keeping in view the severity of vulnerabilities to gain a sustained logistics performance in the dynamic and uncertain market. Therefore, the present study intends to investigate the mediating effects of logistics service capability on China's logistics performance.

Literature Review

Past literature highlights that logistics capabilities are designed strategically in order to attain the competencies and sustainable logistics performance (Bowersox, Stank, & Daugherty, 1999; M. Gligor & Holcomb, 2014). Researchers argued that four dimensions of logistics capabilities such as customer orientation, cost minimization, technology orientation and information sharing have studied less, whereas logistics capabilities have positive and significant influence on logistics performance (Closs & Savitskie, 2003; Han, Trienekens, & Omta, 2009; Lynch, Keller, & Ozment, 2000; Lu & Yang, 2010; Mentzer, Min, & Michelle Bobbitt, 2004; Morash, 2001; Shang & Marlow, 2005; Zhao, Dröge, & Stank, 2001). However, the various intra-firm resources if executed efficiently bring long-term profitability and sustainable business that leads to the concept of Resource-based view of the firm (Barney, 1991; Grant, 1991; Olavarrieta & Ellinger, 1997). The RBV of the firm stated that heterogeneity of the resources is considered as a determinant factor for the firm's survival, whereas logistics capabilities strategic process usually complement the intra-firm resources to optimally utilize it (Mentzer et al., 2004). Hence, intra-firm resources and logistics capabilities both are considered essential determinant factors in the strategic planning for a superior competitive advantage (Grant, 1991).

The empirical evidence demonstrated that majority of the researchers prefer to focus firm's resources on gaining a sustainable logistics performance, however, there is no consensus on a set of measures to use (Mwangangi, 2016; Newbert, 2007). Grant (1991) stated that categorizing the intra-firm resources as tangible and intangible assets in the logistics context is the simplest and most effective way to differentiate strengths of a firm's resources from its competitors. Whereas, the strategic and logistics management literature highlighted that intra-firm resources can be classified into two mixed groups of tangible assets (i.e. cash, labor, and multi-functional operational equipment, facilities and information technologies) and intangible assets (i.e. cross-functional cooperation, organizational culture, employee know-how, corporate reputation, and human resource) in accordance to their features and functions (Greco, Cricelli, & Grimaldi, 2013; Shang, 2009). Therefore, intra-firm resources play an essential role in the direction of the firm's strategy and serve as a primary enabler of logistics performance. On the other hand, the main objective of inter-firm relationships is to reduce logistics costs, share the operational equipment and facilities, promote the innovation, manage the complex logistics processes across locations, and attain new markets and new technologies, and deploy valuable resources (Barringer & Harrison, 2000; Bobbitt, 2004; Rai, Pavlou, Im, & Du, 2012). This paper highlights that the four modes of inter-firm relationships (i.e. inter-firm communication, long-term relationships, strategic alliances, and joint ventures) have been measured empirically and validated in past studies (Das & Teng, 2000; Harbison & Pekar, 1997; Monavvarian & Asri, 2012; Venetis & Ghauri, 2004; Yang et al., 2017).

In many studies, the logistics service capability is considered as the most critical factor in the context of a firm's success. Thus, the improved logistics service capability provides facilitation for efficient deployment of intra-firm resources and reduction of overall logistics cost which ultimately makes logistics service process more effective and efficient and helps in profit generation (Bobbitt, 2004; Daugherty, Chen, & Ferrin, 2011; Yang, Marlow, & Lu, 2009). In the present study, logistics service capability will be used as a mediator along with five sub-variables for logistics service reliability such as logistics service reliability, efficiency, flexibility, innovation, and responsiveness.

As these variables are measured earlier together as demonstrated in previous researches (Lai, 2004; Wook Kim, 2006; Yang et al., 2009, 2017; Zhang, Vonderembse, & Lim, 2005; Zhao et al., 2001). Logistics studies suggested that the logistics performance measures consist of "hard" measures (i.e. service, costs, and accounting-based indicators) and "soft" measures (i.e. customer and demand service levels, quality control and customer satisfaction, and loyalty from logistics managers' perceptions). However, few of the researchers systematically combine various measurements of logistics performance in the existing logistics literature (Fugate, Mentzer, & Stank, 2010; Langley Jr & Holcomb, 1992; Mentzer & Konrad, 1991; Mentzer et al., 2004). Whatever "hard" and "soft" that represent economic indicators of strengths or weaknesses of a firm's logistics performance, commonly, they have been integrated as both efficiency and effectiveness to measure logistics performance (Bobbitt (2004; Fugate et al., 2010; Yang et al., 2017). Whereas the differentiation is considered as a new dimension of logistics performance to be measured as firms attempt to make their inimitable logistics activities differentiation from their competitors for the sake of pursuing a superior logistics performance (Langley Jr & Holcomb, 1992). Therefore, logistics performance is measured in the light of dimensions of efficiency, effectiveness and differentiation in this study.

The resource-based view (RBV) theory demonstrates the relationships between resources, capabilities and performance as this theory has chosen from logistics management literature suggested by researchers such as (Mahoney, 1995; Mentzer et al., 2004; Chen, Tian, Ellinger, & Daugherty, 2010). Figure 1 shows the model developed for the present study, and then the author proposed hypothesized relationships that logistics service capability mediates effects of logistics capabilities, inter-firm relationships and intra-firm resources on logistics performance. Bobbitt, (2004) suggested that strategies play a vital role in logistics service capability for establishing, facilitating and sustaining buyer-seller relationships to fulfil the customer needs and overall profit generation.

Thus, the firms utilize their resources in order to gain superior performance by improved logistics service capabilities (Lai, 2004; Sum & Teo, 1999). Newbert (2007) summarized the relationships between the firm's resources, logistics capabilities, logistics service capability and its performance. In this regard, customer-oriented logistics capabilities are viewed as core competencies to achieve high logistics performance. Nevertheless, logistics service capability that mediates the relationship between logistics capabilities and logistics performance is lacking in the context of Chinese logistics (Lai, 2004; Yang et al., 2017; Zhao et al., 2001).

In the context of marketing, practitioners have increasingly realized the strategic function of logistics service. As the firm relies on internal collaboration which makes it quite difficult to improve service capability by market requirements. Thus, this situation drives the firm to seek external strategic partners to strengthen the organizational service competency. Therefore, logistics service capability is considered as a driver to establish mutual trust among partners for the attainment of high logistics performance. Daugherty et al. (2011) suggested that logistics service capability may help practitioners to improve customer loyalty; decrease logistics cost, and make market activities more efficient. Firms are now increasingly aware of the strategic role of logistics service capability in maintaining business partners with mutual trust so as to create a sustained logistics performance (Politis, Giovanis, & Binioris, 2014).

Thus, the improvement of logistics service capability may help the logistics companies to establish inter-firm relationships for increased logistics performance (Bobbitt, 2004; Yang et al., 2017). Hence, the increasing growth of logistics service capabilities has substantially facilitated the intra-firm resources for successful implementation of the firm's service strategies expertly (Kandampully, 2002). More importantly, managers prefer to integrate the unique resources with available logistics service capabilities, such as increased service flexibility for distribution and demand management to improve customer satisfaction (Chapman, Soosay, & Kandampully, 2003; Zhang, Vonderembse, & Lim, 2005). Lai (2004) and Lin (2007) stated that the reliability and responsiveness of service capability leads towards competition among various marketing groups where intra-firm resources are correctly deployed for high logistics performance.

Research Model

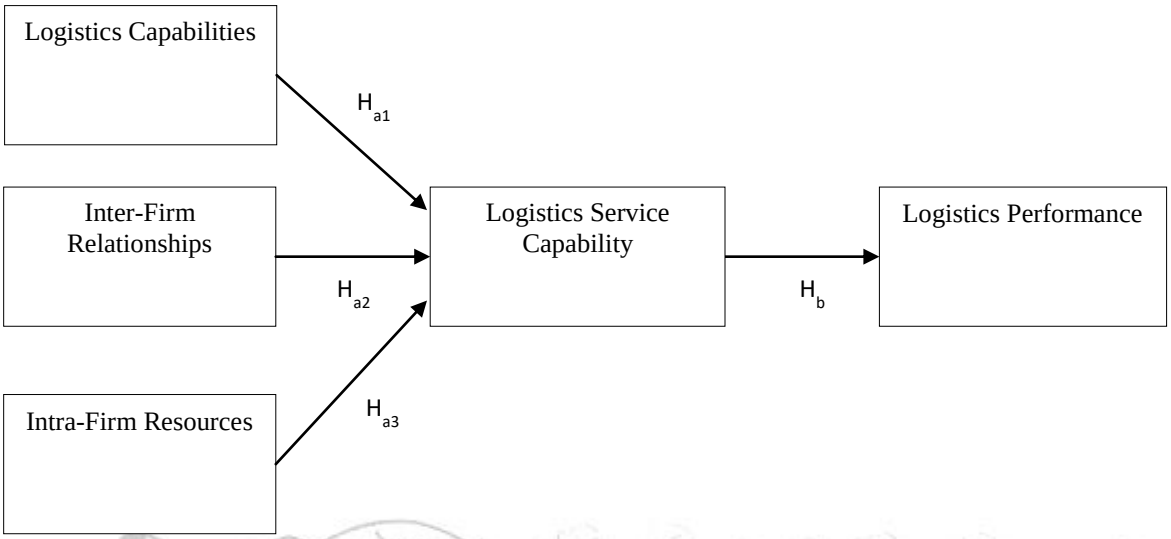


Figure 1: Theoretical Model

Hypotheses

Hypothesis H_{a1}: Logistic capabilities have positive influence on logistics service capability
Hypothesis H_{a2}: Inter-firm relationships have positive influence on logistics service capability
Hypothesis H_{a3}: Intra-firm resources have positive influence on logistics service capability
Hypothesis $H_{b:}$ Logistics service capability has positive influence on logistics performance

Methodology

Sample and Main Respondent Profile

A total of 412 surveys with 6-point Likert scale were distributed. A total of 251 usable questionnaires were returned which represented a valid response rate of 60.9% approximately. A response rate of 60.9% was relatively high as compared to other studies on the Chinese logistics by self-administered questionnaire survey (CFLP, 2018; Hwang et al., 2017). These questionnaires were used for the subsequent data analysis. This questionnaire survey included five constructs. Firstly, four dimensions of logistics capabilities (i.e. customer orientation, cost minimization, technology orientation, and information sharing) were measured by scales developed by (Cai, Jun, & Yang, 2010; Frambach, Fiss, & Ingenbleek, 2016; Grawe, Chen, & Daugherty, 2009), Secondly, intra-firm resources were categorized into tangible assets and intangible assets and their sub-variables were measured using scales developed by Yang et al. (2017). Thirdly, four sub-variables of inter-firm relationships such as inter-firm communication, long-term relationships, strategic alliance and joint venture were identified and measured by scales introduced by (Lyles & Salk, 1996; Panayides & So, 2005a; Panayides & So, 2005b; Whipple & Frankel, 2000; Yang et al., 2017). Fourthly, five dimensions for logistics service capability namely, reliability, efficiency, flexibility, innovation, and responsiveness measured as highlighted in previous litertaure (Daugherty et al., 2011; Yang et al., 2017; Zhao et al., 2001). Finally, logistics performance in terms of efficiency, effectiveness, and differentiation were systemically integrated from the previous studies and measured in this study based on the works of (Bobbitt, 2004; Fugate et al., 2010; Yang et al., 2017).

Subsequently, the management staff involved in the sample of this study have CEO/general managers (9.2%), logistics managers (26.3%), supervisors (51.4%), and logistics experts (13.1%). These target respondents have professional knowledge and work experiences in the field of the Chinese logistics, thus they have the abilities to provide the right response as seeked by the researcher. As for the educational qualifications of respondents, 53% of participants having degree while 31.8% with a diploma certificate in logistics whereas, 7.2% of respondents having a Master's degree and above. The remaining 6% had a high school and only 1.6% or 4 participants have middle school qualifications. The results highlight that majority of the respondent have appropriate qualifications. Regarding years of service, 37% of participants are working with the company for more than five years, 23.9% of participants are working more than three years but less than five years, and 28.3% are working between 1 and 3 years. Whereas, the remaining (10.8%) have less than one year of the service period.

Data Analysis

SPSS software and partial least square (PLS)-based SEM approach were used to test the reflective measurement model. SPSS was applied to examine the data for descriptive analysis. As noted by Thatcher and Perrewe (2002), the measurement and structural models were assessed by using PLS. According to Ringle, Sarstedt and Straub (2012), researchers have increasingly employed PLS-SEM modelling as an alternative, which has abilities to handle certain inadequacies such as missing values, model misspecification, and small samples while generating robust results (Choi, Sung, Lee, & Cho, 2011). Therefore, PLS-SEM was selected because the present study aimed at theory development instead of theory testing and confirmation (Ringle et al., 2012). To evaluate the reflective measurement model (outer model), the testing results presented as composite reliability, convergent validity, and discriminant validity (cross-loadings and Fornell-Larcker criterion). Moreover, the test of the mediation effects of the structural model were performed based on PLS bootstrapping procedure.

Results

Descriptive Analysis

The statistical results demonstrated that three independent variables rated by respondents on a scale of 1=strongly disagree and 6=strongly agree to express the importance of determinant factors from logistics capabilities (mean=5.492, standard deviation=0.481), followed by inter-firm relationships (mean=5.433, standard deviation=0.617), intra-firm resources (mean=5.371, standard deviation=0.703) for the improvement of logistics service capability. Table 1 showed that as per result the determinant factors are considered important for logistics businesses. Subsequently, logistics service capability (mean=5.402, standard deviation=0.623) served as the mediator variable that has assessed the significance for logistics performance in accordance to scale range of 1=strongly disagree to 6=strongly agree. The result indicated that logistics service capability rated at higher level among the relationships between logistics capabilities, inter-firm relationships, intra-firm resources and logistics performance. While for logistics, performance mean value recorded as 5.331 with standard deviation of 0.660 which highlight that logistics performance is considered as an important outcome for logistics service capability. Thus, descriptive analysis results of present study attained at a satisfactory level.

Reflective Measurement Model

In measurement model assessment, evaluation of reliability and validity of measures done by using PLS. The researchers have calculated the composite reliability (CR) and average variance extracted (AVE) (Chin, 1998; Fornell & Larcker, 1981; Hair Jr, Hult, Ringle, & Sarstedt, 2017). Hence, with a Cronbach's alpha (CA) internal consistency reliability estimate, composite reliability of 0.70 or higher considered as an acceptable level for study (Fornell & Larcker, 1981). In comparison with CA, the value of CR recorded higher than that of CA (Hair, Anderson, Babin, & Black, 2010). According to Fornell and Larcker (1981),

the AVE measured the level of variance captured by the indicators related to measurement error. Table 1 shows the testing results that the CR exceeded 0.90, and the AVE of all measures aggressively exceeded the cut-off value of 0.50 as suggested by Fornell and Larcker (1981) and Hair et al. (2017). The lowest value of AVE employed 0.709 in this measurement model. As noted by Hulland (1999), in the procedure of social science studies, researchers commonly derive weaker outer loadings from measurement items test, which is less than 0.70 when newly developed scale applied. In line with this, Hair et al. (2017) highlighted that indicators with outer loadings between 0.40 and 0.70 are considered in terms of removal from the scale only when the deleted indicator leads to an increase in the CR or the AVE instead of automatic elimination of indicators when the outer loadings record below 0.70.

In social sciences, researchers usually used two measurement approaches comprise of cross-loadings and Fornell-Larcker criterion to assess the discriminant validity (Hair et al., 2017). The indicators' of discriminant validity are evaluated by using the cross-loadings, which depict the outer loading of an indicator on the corresponding construct which is considered higher than any of its cross-loadings on other constructs as proposed by Hair et al. (2017). The second approach used to assess the discriminant validity in line with Fornell-Larcker criterion as past studies opined that the levels of square root of the AVE for each construct should be greater than the highest correlation with other constructs (Fornell & Larcker, 1981; Fornell & Bookstein, 1982; Hair, Ringle, & Sarstedt, 2013; Hair et al., 2017). The table 2 depicts that all the values of the square roots of AVE for second-order constructs as presented in the correlation matrix along diagonal are more significant than the off-diagonal correlations in the corresponding rows or columns.

Table 1: Reliability and Convergent Validity of Constructs

Construct	Indicator Loadings		Mean	Std. Dev.	CA	CR	AVE	Items delete due to low loadings
Logistics Capabilities (LOGCAP)			5.492	0.481	0.863	0.907	0.709	CO1,CO4,CM4, CM5
	CO	0.795	5.609	0.480				
	CM	0.829	5.526	0.492				
	TECHO	0.892	5.388	0.643				
	IS	0.849	5.445	0.631				
Inter-Firm Relationships (IFREL)			5.433	0.617	0.946	0.961	0.861	NONE
	IFC	0.921	5.406	0.706				
	LTR	0.933	5.491	0.596				
	SA	0.939	5.444	0.647				
	JV	0.920	5.39	0.713				
Intra-firm Resources (IFRES)			5.371	0.703	0.896	0.951	0.906	NONE
	TA	0.954	5.365	0.688				
	IA	0.949	5.376	0.789				
Logistics Service Capability (LOGSCAP)			5.402	0.623	0.958	0.968	0.857	LSE3
	LSREL	0.909	5.431	0.650				
	LSE	0.934	5.433	0.598				
	LSF	0.935	5.406	0.705				
	LSI	0.927	5.387	0.697				
	LSRES	0.923	5.350	0.623				
Logistics Performance (LOGPER)			5.331	0.660	0.916	0.947	0.856	LOGEFFE4
	LOGEFFI	0.945	5.383	0.696				
	LOGEFFE	0.915	5.272	0.708				
	LOGDIFF	0.916	5.339	0.729				

Note: (a) CR is equal to (square of the summation of the factor loadings)/ [(summation of the square of the factor loadings) + (summation of the square of the error variances)]. The AVE calculating formula is, (summation of the square of the factor loadings / [(summation of the square of the factor loadings) + (summation of the error variances)]. (b) LOGCAP: Customer orientation (CO), Cost minimization (CM), Technology orientation (TECHO), and Information sharing (IS); IFREL: Inter-firm communication (IFC), Long-term relationships (LTR), Strategic alliance (SA), and Joint venture (JV); Intra-firm resources (IFRES): Tangible assets (TA), Intangible assets (IA); LOGSCAP: Logistics service reliability (LSREL), Logistics service efficiency (LSE), Logistics service flexibility (LSF), Logistics service innovation (LSI), and Logistics service responsiveness (LSRES); LOGPER: Logistics efficiency (LOGEFFI), Logistics effectiveness (LOGEFFE), and Logistics differentiation (LOGDIFF).

Table 2: Discriminant Validity of Second-Order Constructs

	Correlation of Constructs and AVE				
	(1)	(2)	(3)	(4)	(5)
(1) LOGCAP	**0.842**				
(2) IFREL	0.712	**0.928**			
(3) IFRES	0.693	0.817	**0.952**		
(4) LOGSCAP	0.750	0.891	0.833	**0.926**	
(5) LOGPER	0.673	0.806	0.751	N/A	**0.925**

Noted: Diagonal elements in the correlation of constructs matrix are the square root of the average variance extracted (AVE). For adequate discriminant validity, diagonal elements should be greater than corresponding off-diagonal elements.

Structural Model

The structural model has assessed in line with underlying structural theories. The path model was conducted by running PLS-SEM algorithm and bootstrapping (Chin, 2010; Gefen, Straub, & Boudreau, 2000).

In order to assess this model, the level and significance of the path coefficients, t-values and coefficient of determination (R^2) have been calculated. Subsequently, the mediating effects of logistics service capability on the relationships between logistics capabilities, inter-firm relationships, intra-firm resources, and logistics performance have been calculated and analysed.

Coefficient of Determination (R^2)

As suggested by Chin (1998) and Ringle (2004), R^2 value equivalent to 0.670, 0.333, and 0.190 for endogenous latent variables considered as substantial, moderate, and weak. Hair et al. (2017) demonstrated that that R^2 value is the amount of the predictive power or variance of endogenous latent constructs in the structural model. Two endogenous latent variables comprise of logistics service capability and logistics performance in the structural model.

Table 3 shows that the coefficient of determination (R^2) with values of 0.809, and 0.781 for logistics service capability and logistics performance, respectively. This means that logistics capabilities, inter-firm relationships and intra-firm resources contributed 80.9% of the variance in logistics service capability, whereas logistics service capability explained 78.1% of the variance in logistics performance. Henseler, Ringle and Sinkovics (2009) suggested that the R^2 of endogenous constructs with three or more exogenous latent constructs should be at least substantial, which was met in this study.

Table 3: R^2 Value of Endogenous Latent Constructs

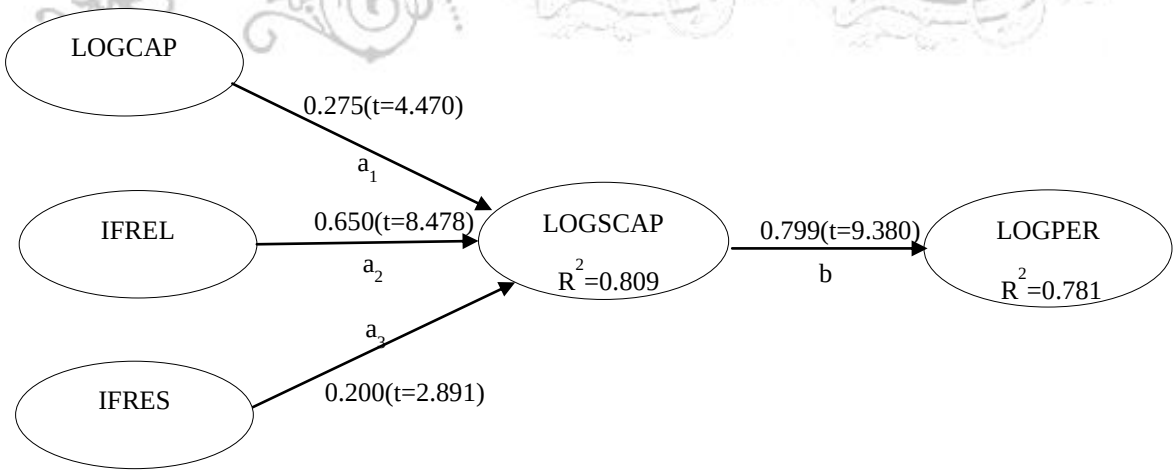
Endogenous Construct	R Square	R Square Adjusted	Outcome
LOGSCAP	0.809	0.806	Substantial
LOGPER	0.781	0.778	Substantial

Testing the Mediating Effect of Logistics Service Capability

Figure 2 shows the path coefficients generated for hypotheses testing and the direct relationships among constructs involving LOGCAP, IFREL, IFRES, LOGSCAP and LOGPER. Hair et al. (2017) suggested that mediation referred to a situation in which one or more mediating variable(s) explain the processes by which an exogenous construct influences an endogenous construct. Furthermore, the change in the exogenous construct leads to a change in the mediator variable, which in turn changes the endogenous construct. The PLS bootstrapping procedure is used to generate the bootstrap results for the direct effects, such as (path a) and (path b). However, Nitzl, Roldan and Cepeda (2016) highlighted that for more detailed mediating analysis it is necessary to compute the bootstrapping results with the combination of a × b of a specific indirect effect in a new column.

There were several steps followed to assess the mediating effects between the exogenous constructs and endogenous constructs. The first step highlighted in Table 4, as the distribution of the direct path coefficients for the inner model was provided by running the bootstrapping approach, and then the new column of IE (indirect effect) point estimate was calculated to determine the standard error (SE) of its distribution as suggested by Hair et al. (2017). Subsequently, t-values for all indirect effects were computed based on the formula for t-values calculations (t = IE)/SE = (a*b)/SE).

As noted by Hayes (2009), the subsamples (1000) for the values of a × b from the bootstrapping procedure should be sorted from smallest to largest for calculating a 95% bootstrapped confidence interval (95% Boot CI). Table 5 summarized the bootstrapping results that the mediating effect of logistics service capability on the relationships between logistics capabilities, inter-firm relationships, and intra-firm resources and logistics performance calculated positive and significant, and data presented as (β = 0.220, t = 4.121, p < 0.01), (β=0.519, t=7.658, p<0.01), and (β=0.160, t=2.623, p<0.01), respectively, also percentile 95% did not straddle a 0 in between.



Note: **P<0.05 (t>1.645); **P<0.01(t>2.33)*

Figure 2: Direct Path Coefficients and R^2 of Structural Model

Table 4: Calculating IE Point Estimate, SE, T/P-value and LB/UB

					Bootstrapped Confidence Interval (BCI)	
Indirect Effect (IE)	IE Point Estimate	SE	T-value	P-value	Lower Bound (LB)	Upper Bound (UB)
$a_{1*}b$	0.220	0.053	4.121	0.000	0.007	0.209
$a_{2*}b$	0.519	0.068	7.658	0.000	0.422	0.696
$a_{3*}b$	0.160	0.061	2.623	0.004	0.046	0.292

Table 5: Summary of Mediation Results

IE Path		Bootstrap 1000 times		Percentile 95%		Decision
	IE Point Estimate (β)	SE	T-value	LB	UB	
LOGCAP ->LOGSCAP->LOGPER	0.220	0.053	4.121	0.007	0.209	Supported
IFREL -> LOGSCAP->LOGPER	0.519	0.068	7.658	0.422	0.696	Supported
IFRES -> LOGSCAP->LOGPER	0.160	0.061	2.623	0.046	0.292	Supported

*Note: *P<0.05 (t>1.96); **P<0.01(t>2.58)*

Discussion

This study adopts the RBV to establish the measurement model and determine the constructs involving logistics capabilities, inter-firm relationships, intra-firm resources, logistics service capability and logistics performance based on the theoretical foundations. However, the different internal resources and their logistics capabilities address different potential abilities on logistics service capability owing to the influenced factors vary to logistics performance. The findings indicated that logistics service capability mediates the relationship between logistics capabilities and logistics performance. In other words, logistics service capability serves as a mediator that drives logistics capabilities to enhance logistics performance. The results of this research also recognized that both internal resources whatever formed inside or acquired from outside market and establishment of inter-firm relationships might indirectly positively affect the logistics performance. Thus, for enhancing the logistics performance, the empirical result proved that deployment of intra-firm resources depends on logistics service capability throughout for achieving the interactive functions of logistics activities. The real practical examples have also identified that firms can build the cooperative relationships with logistics service providers in order to avoid reduplicative investments, reduce logistics cost and increased logistics service speed. Overall, the testing results demonstrate how the logistics service capability mediates the effects of logistics capabilities, inter-firm relationships and intra-firm resources on logistics performance in the context of the Chinese logistics industry.

Conclusion

This paper develops a conceptual model and tests the constructs related to the reflective measurement model. The testing results demonstrated that logistics service capability has significant and positive mediating effects of logistics capabilities, intra-firm resources and inter-firm relationships on logistics performance in the context of the Chinese logistics industry. The resource-based view theory applied as a base for a better understanding of the theoretical links. The study model received empirical support as all of the hypotheses are supported. The results underscore the importance of developing, improving and maintaining the logistics service capability surrounding logistics capabilities, inter-firm relationships and intra-firm resources in the logistics contexts. The findings suggested about the need of managers for the logistics industry to implement the suitable strategies for the development of logistics capabilities,

deployment of intra-firm resources, building long-term relationships and improved logistics service capability. More importantly, the testing results also indicate that logistics service capability is considered as an essential mediator to help the managers to allocate their resources and strengthen their capabilities, and then to combine and drive these to gain a sustained logistics performance.

Theoretical Contribution

The theoretical contribution of this study is to establish the relevance of RBV theory and explain the mediating role of logistics service capability on the relationships between logistics capabilities, inter-firm relationships, intra-firm resources and logistics performance in the reflective measurement model. This study provides much empirical evidence to bridge the gap in the literature regarding the mediator of logistics service capability. Further, the testing results are in accordance with the expectation of RBV theory. The paper provides a new research direction on the predictors of logistics performance for the Chinese logistics development.

Managerial Contribution

This research has managerial implications for owners/managers to evaluate their strengths and weaknesses in their service capability. Firstly, the resource-based approach was offered to guide logistics managers to rethink ways how to make their logistics service more efficiently and effectively. Thus, better understanding of logistics service capability may help the owners/managers to design different strategies and formulate plans of service capability to meet the customer requirements as well as allocate the resources in the target market segments for the development of capabilities. Furthermore, this study suggests that firms should be proactive to hold opportunities when they enable to find new ways to compete in the markets.

Limitations and Future Research

The findings of the study reveal various limitations. The generalizability of this study might be limited, since various organizational and target environments might not accept these findings outside the sample population. Thus, future researchers may consider to extend the target populations into other countries for doing comparisons of logistics performance. Another limitation of this study as the research is conducted by using the quantitative methodology, even though statements from target respondents could be biased, such biased answers have not threatened the study based on the testing results. This study utilized the subjective measures to evaluate the constructs of the model instead of the utilization of the objective measures for verification of the statements by other data. Tracey (1998) stated about the adaptation of the subjective measures in organizational studies. The targeted samples are considered acceptable due to data collection by the help of standardized questionnaires answered by the professionals in the logistics companies, as well as the volunteers having professional knowledge and work experience. However, the in-depth interview can help researchers to get a better understanding of the processes and mechanisms involved in this study. Hence, the mixed methods may be considered while conducting future studies. To attain a better understanding of the role of service capability in the logistics context, the author suggested that it is necessary to examine how different traits of logistics service capability associated with other constructs influencing the logistics performance to provide a cross-case comparison in the future research.

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Biography

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