A STUDY ON RISK MANAGEMENT STRATEGIES ADOPTED BY THIRD-PARTY LOGISTICS SERVICE PROVIDERS WITH SPECIAL REFERENCE TO COIMBATORE CITY

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ABSTRACT

This study is undertaken to determine the risk management strategies adopted by third-party logistics service providers in Coimbatore city. The prime objectives of this study are to study the risks and strategies adopted by the service providers. This study was conducted based on descriptive research and analytical research designs. The respondents have been selected using a stratified sampling method where the total population is divided into small groups or strata. Totally 77 sample respondents were selected and analyzed by using Simple Percentage analysis, Ranking, and factor analysis. This study helps the logistics service providers to know about their risks and the strategies adopted by them.

KEYWORDS: *Third-party logistics, risk management strategies, service providers, Supply chain management.*

INTRODUCTION:

Third-party logistics, or 3PL, is one of the key components of modern supply chain management. By contracting with specialized organizations for logistics and distribution services, businesses may focus on their core competencies while leaving the complexities of fulfillment, warehousing, and transportation to experienced providers. Third-party logistics (3PL) companies facilitate the movement of goods from manufacturing to end-users by acting as intermediaries between retailers, producers, and customers. To meet the diverse demands of their clientele, they offer a wide range of services, including order fulfillment, freight forwarding, inventory management, packaging, and transportation optimization. 3PL has evolved due to factors like supply chain complexity, globalization, and technological advancement. Effective collaboration and communication are essential in today's competitive market to maximize the advantages of the 3PL partnership and achieve supply chain excellence.

OBJECTIVES OF THE STUDY:

- To identify the problems faced by third-party logistics providers.
- To determine the risk management strategies adopted by the third-party logistics providers.

Research methodology:

- **Research design:** Descriptive Research and Analytical Research designs
- **Area of the study:** Coimbatore city.

- **Sampling technique:** Stratified sampling.
- **Data collection:** Primary and secondary data
- **Sample size:** 77
- **Tools used for analysis:** Simple Percentage analysis, Ranking, and factor analysis.

Review of literature:

1. **Alessandra Marasco (2008),** Research on third-party logistics (TPL) has garnered much attention lately. Plans for further research are also given, based on the review. Recently, there has been a lot of research focused on third-party logistics, or TPL. Despite the expanding corpus of publications on the subject, very little work has gone into synthesizing the total state of the art of TPL research.
2. **Osorio Gómez, J. C**, Making wise decisions about risks that exist in an organization's supply chain and inside the business itself is crucial. Risk assessment, quantification, prioritization, and identification are all steps in the risk management process. Third-party logistics (3PL) providers are increasingly involved in supply chains; therefore, it is crucial to take into account the impact of their presence on risk management.
3. **Kannan Govindan (2016),** To keep risks from negatively impacting the operation of the chain, risk management is an essential part of supply chain design. After a quick overview of supply chain risk management, the risks that 3PLs face will be divided into groups and subgroups. Following a review of the literature to determine the relevant risks, the collection of hazards is completed and categorized based on expert comments. Subsequently, a methodology was chosen to analyze the expert input about the interrelationships among the different logistics risk categories. By suggesting an improved version of DEMATEL, this research has significantly improved both logistics risk management and the application possibilities of the tool.
4. **Kähkönen, A. K. (2017),** Risk management for logistics service providers (LSPs) that are connected to sustainability is an essential part of the sustainability performance of target companies since logistics services have an impact on all stages of the supply chain (SC), from raw material suppliers to end customers. This article's objective is to investigate how companies might use stakeholder theory and the resource-based approach to manage risks related to social and environmental sustainability from logistics service providers. This kind of knowledge is necessary to sustain long-term financial success and retain a favorable reputation among stakeholders.
5. **Aimin Deng (2017),** Supply chain finance creates a new type of strategic partnership by linking all members of supply chain nodes from the perspective of capital flow. Coordinated development of finance and supply chain goals may help financial organizations execute business innovation and increase their competitiveness, in addition to helping SMEs understand the value provided by the supply chain and alleviate their issues. using surveys to get primary data. The rise of supply chain financing presents new options for small and medium-sized enterprises (SMEs) that are confronting a liquidity crunch. But it also sets a higher standard for risk management in the supply chain finance system. This identified a trend in both domestic and international research, based on three factors: risk identification, risk assessment, and risk control.

Table No.: 1 (Simple Percentage Analysis)

Table showing the years in operation			
1.	Less than 5 years	34	44.2
2.	5-10 years	14	18.2
3.	11-20 years	14	18.2
4.	Over 20 years	15	19.5
Table showing the annual revenue of the company			
1.	Below Rs. 10,00,000	40	51.9
2.	Rs. 10,00,001 – 20,00,000	9	11.7

3.	Rs. 20,00,01-30,00,000	15	19.5
4.	Above Rs. 30,00,000	13	16.9
Table showing the type of transportation service			
1.	Inbound freight management	25	32.5
2.	Outbound freight management	23	29.9
3.	Both Inbound and Outbound freight management	29	37.7
Table showing the obstacle faced in controlling costs			
1.	Inefficient route planning	34	44.2
2.	Fluctuations in fuel prices	11	14.3
3.	High labor costs	13	16.9
4.	Others	19	24.7

INTERPRETATION:

From the above table, the majority of the respondent 44.2% have less than 5 years of experience, 51.9% of the respondent's annual revenue of the company is below Rs. 10,00,000, 37.7% of the respondents do both inbound and outbound logistics type of services, and 44.2% of the respondent's face obstacles in route planning.

Table no. 2 (Ranking method)

FRIEDMAN TEST

Descriptive Statistics

	N	Minimum	Maximum	Mean	Rank
Timeliness Of Deliveries	77	1.00	5.00	2.7542	III
Inventory Management	77	1.00	5.00	2.4675	VII
Supply Chain Visibility	77	1.00	5.00	2.4416	VIII
Cost Control Issues	77	1.00	5.00	2.7530	V
Collaboration Hurdles	77	1.00	5.00	2.7532	IV
Space Constraints	77	1.00	5.00	2.6753	VI
Regulatory Compliance	77	1.00	5.00	2.9610	II
Cost Efficiency	77	1.00	5.00	2.4286	X
Technology Integration	77	1.00	5.00	2.4410	IX
Service Customization	77	1.00	5.00	2.9870	I
Valid N (listwise)	77				

INTERPRETATION

The above table shows the mean score analysis on challenges encountered in providing logistics service. It shows that service customization is ranked first and is mostly an agreed barrier, and Cost Efficiency is ranked tenth.

It is interpreted that service customization (2.9870) imposes the first rank, which implies that the challenges encountered in providing logistics service and cost efficiency are the least ranked (2.4286).

Table no. 3

FACTOR ANALYSIS

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.964	66.074	66.074	3.964	66.074	66.074
2	1.512	25.200	91.274	1.512	25.200	91.274
3	.363	6.052	97.326			
4	.105	1.752	99.078			
5	.055	.922	100.000			
6	4.510E-18	7.516E-17	100.000			

Extraction Method: Principal Component Analysis.

Component Matrix

	Component	
	1	2
MANAGING INVENTORY	.558	.796
ADOPTING E-COMMERCE	.944	-.251
VALUE ADDED SERVICE	.944	-.251
SAFETY AND SECURITY	.592	.771
COLLABORATION	.964	-.147
ENSURING COMPLIANCE	.769	-.369

Extraction Method: Principal Component Analysis.

a. 2 components extracted.

The above table indicates the extracted components matrix. This contains the loading of every variable into each factor. All loadings have been stifled and the remaining components are taken for the investigation. With the above, output has been yielded from the table, and significance is taken as a factor.

Findings of simple percentage analysis:

It is found that the majority of the respondent 44.2% have years of experience, 51.9% of the respondent's annual revenue of the company, 37.7% of the respondents do both inbound and outbound logistics type of services and 44.2% of the respondents face obstacles in route planning.

Findings of ranking analysis:

It is found that the mean score analysis on challenges encountered in providing logistics service. It shows that service customization is ranked first and is mostly an agreed barrier, and Cost Efficiency is ranked tenth.

Findings of factor analysis:

It is found that all the loadings have been stifled and the remaining components are taken for the investigation. With the above, output has been yielded from the table, and significance is taken as a factor.

SUGGESTIONS:

- ✓ To improve data security in logistics operations, the organization had to give top priority to the entire integration of technology.
- ✓ The organization must employ a range of strategies, including insurance coverage, customer communication, security measures, and real-time visibility & tracking technologies, to reduce the risk of item loss.
- ✓ The organization ought to reduce the possibility of a deficiency in business comprehension using consistent correspondence, high-quality service delivery, and maybe by integrating technology to optimize procedures.
- ✓ The business should concentrate on increasing forecasting accuracy, establishing just-in-time procedures, and utilizing ABC analysis for inventory management to mitigate the risk connected with a shortage of inventory space.
- ✓ To guarantee the security of sensitive data during logistical operations, the organization should give top priority to modern data protection methods.

Conclusion:

For third-party logistics service providers (3PLs), this study's result emphasizes the vital significance of proactive and comprehensive risk management techniques. Important discoveries emphasize that to effectively manage the complexity of contemporary logistics, comprehensive solutions are required, such as supplier diversity, technological integration, and strong disaster recovery plans. Comprehensive methods are still necessary, as seen by the emphasis on data protection, proactive risk mitigation, and strategic optimization. Eventually, 3PLs may

successfully reduce risks and guarantee operational resilience in the ever-changing logistics industry by utilizing technology, forming strategic alliances, and embracing agility.

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