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Risks in Distribution Outsourcing: An Analytical Approach to Mitigation

Bing Tan^{1,*}

¹ School of Business Administration, Zhongnan University of Economics and Law, Wuhan 430073, China

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ABSTRACT

Many organisations whose primary operations do not involve logistics typically face two strategic choices regarding the management of their logistics activities. The first involves managing logistics internally, referred to as in-house logistics, while the second entails delegating these functions to specialised external providers, thereby allowing the organisation to concentrate on its core competencies. Due to the considerable benefits associated with outsourcing, numerous companies opt for this approach. However, outsourcing has notable implications for key supply chain functions, particularly in relation to cost efficiency and operational flexibility. In light of these considerations, the present study aims not only to explore the risks linked to logistics outsourcing but also to assess them quantitatively. To this end, the research identifies and evaluates 15 distinct risks. The findings reveal that three specific risks—vulnerability in data protection, the large-scale departure of skilled personnel, and inadequate training of contracted staff—are categorised as high. Corresponding mitigation strategies have been recommended to address these high-priority risks.

1. Introduction

A growing number of companies are adopting logistics outsourcing as a means to enhance operational flexibility while ensuring cost efficiency. By transferring logistics responsibilities to specialized service providers, organizations are able to concentrate on their primary operations, thereby improving overall organizational performance [1-3]. This practice has evolved into a strategic method for achieving economic efficiency and securing a competitive advantage. In regions such as the United States and Europe, third-party logistics (3PL) has reached a mature stage of development and continues to demonstrate substantial potential [4-6]. Conversely, nations including China, Japan, and India are witnessing rapid expansion within the 3PL sector. Contemporary 3PL providers offer a broad range of services beyond traditional transportation and storage. These include value-added functions such as reverse logistics, (re)assembly, order fulfilment, customized packaging, labelling, and the use of barcoding or RFID technologies [7, 8]. However, despite its numerous benefits, logistics outsourcing involves several inherent risks. Existing research suggests that risk evaluation often receives insufficient attention, even though it plays a pivotal role in both the decision to outsource and the selection of service providers.

* Corresponding author.

E-mail address: 13086726880@163.com

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Conducting a comprehensive risk assessment, supported by well-defined contractual arrangements, is essential for maximizing the gains of outsourcing while sustaining a competitive market position. Furthermore, evidence indicates that such risks are not confined to partnerships with 3PL providers but also extend to collaborations involving fourth-party logistics (4PL) entities [9]. At a broader level, entire supply chains are susceptible to risks that may adversely affect their robustness and increase their vulnerability [10]. Consequently, the implementation of a systematic framework for risk identification, evaluation, and mitigation is critical. This study aims to investigate the risks associated with the outsourcing of logistics operations, placing particular emphasis on the need for both preventative and responsive strategies to reduce negative outcomes. A holistic risk assessment enables organizations to mitigate or eliminate potential threats, thereby ensuring that the strategic advantages of outsourcing are not compromised by unforeseen challenges. This is especially significant as future trends in outsourcing are expected to align closely with innovations in last-mile logistics, including advancements in route optimization, incentive-based scheduling, and real-time digital tracking and communication systems—domains where risk must also be carefully managed [11].

The structure of this paper is as follows: the next chapter presents a review of relevant literature and an analysis of the problem context. Chapter three introduces the risk assessment framework employed during the outsourcing process, which is segmented into four key stages: (1) risk identification, (2) risk analysis, (3) risk evaluation, and (4) risk mitigation. Chapter four provides a case study focusing on the risk analysis of distribution outsourcing. The final chapter offers concluding observations.

2. Literature Review with Problem Analysis

This section aims to provide an in-depth overview of outsourcing by clarifying its definition, outlining its global relevance, presenting the principal motivations behind its adoption, and identifying commonly outsourced services. The discussion in this chapter is limited to the advantages of outsourcing; its associated risks and limitations will be addressed in subsequent sections of the study. In an environment marked by continuous market transformation, heightened competition, and an unceasing quest for competitive advantage, only organizations capable of reducing operational costs while maintaining high-quality outputs are likely to succeed. Outsourcing represents one of the most effective strategies for achieving operational efficiency. In recent years, it has emerged as a prevailing practice across multiple sectors, particularly within logistics and supply chain management. Current data indicate that the outsourcing rate for logistics services has reached 94% in Europe, 78% in North America, and 92% in the Asia-Pacific region [12].

Outsourcing may involve both domestic and international arrangements and occasionally includes offshoring, which entails transferring specific business operations to foreign locations. As the outsourcing market continues to grow, enterprises increasingly rely on external partners to manage non-core functions, allowing greater focus on strategic priorities. Within the logistics sector, this practice is often referred to as 3PL or contract logistics. Drawing from various conceptual definitions, logistics outsourcing can be described as the long-term transfer of all or a portion of a firm's logistics operations—previously executed internally—to an external provider. This transition often includes the reallocation of resources and is intended to ensure that logistics functions are carried out as effectively, or more so, than they would be in-house. Through outsourcing, firms are able to devote more attention to their core operations while realizing cost savings estimated at around 9%, along with an average improvement of 15% in service capacity and quality [12].

The motivations for outsourcing and the corresponding benefits are diverse; several key advantages are outlined in Table 1. The most frequently cited rationale is the potential to reduce

logistics costs. Since logistics providers specialize in this domain, they typically manage these operations more efficiently than manufacturing firms, where logistics is not the central area of focus. When handled internally, inefficiencies in logistics are often overlooked, and enhancements in service may be deprioritized in favor of core business functions. Outsourcing supports cost efficiency through economies of scale, more effective utilization of assets, and reduced investments in infrastructure and information systems. It also decreases expenses related to labor and other workforce-related commitments. By transferring logistics responsibilities to external providers, companies can convert fixed costs into variable costs, thereby improving financial adaptability.

Beyond financial benefits, outsourcing can significantly enhance logistics performance in ways that may be unattainable through internal management. These improvements stem from the provider’s expertise, advanced technologies, and established infrastructure. The result is enhanced service quality, better asset efficiency, increased operational agility, reduced delivery lead times, and fewer instances of damage during transport. In the context of limited internal resources and increasing market complexity, it is imperative for organizations to priorities their core competencies, a goal that outsourcing directly supports. Furthermore, outsourcing contributes to the mitigation of both strategic and operational risks. Strategic risks are reduced by avoiding substantial capital investments in logistics infrastructure, while operational risks—such as delays, unanticipated cost increases, and quality issues—are shifted to the service provider [12].

Table 1
 Reasons for Outsourcing

Focus on Core Business Functions	Competitive Advantage
Improved Organizational Efficiency	Utilization of Externally Available Resources
Cost Reduction	Leveraging External Expertise and Experience
Access to Materials Available Only Abroad	Reduced Investment in Infrastructure
Time Savings	Reduced Compliance Concerns and Transfer of Responsibility
Increased Flexibility	Lack of Internal Capabilities and Expertise
Enhanced Customer Satisfaction	Access to IT Support
Freeing Up Resources for Other Purposes	Access to New Market Areas
Cost Transparency	Better Risk Management
Inventory Reduction	Shorter Order Cycles
Access to Logistics Information Systems	Better Utilization of Capacity
Reduced Financial Risk	Converting Fixed Costs into Variable Costs
Access to an International Logistics Network	Economies of Scale

The scope of services offered by logistics service providers (LSPs) varies considerably. Empirical data indicate that the most frequently outsourced logistics functions include direct distribution (61%), warehouse operations (59%), and freight payment processing (53%). Other commonly outsourced services include consolidated shipments (49%), freight forwarding (45%), carrier selection (43%), and customs brokerage (41%) [13]. A recent investigation explored how the outsourcing management process (OMP) functions as a key operational mechanism influencing two distinct categories of logistics outsourcing: basic and advanced services. Drawing on a resource-based view, the study tested a conceptual model using survey responses from 250 subsidiaries of publicly listed manufacturing firms in China. Results revealed that while basic outsourcing directly affects cost efficiency and delivery, advanced outsourcing enhances performance primarily through interaction with OMP [1]. In a separate study, recent developments in technology and sustainability were examined in the context of logistics outsourcing. Several determinants of successful outsourcing were identified, including the development of trust-based partnerships, the selection of LSPs based on sustainability and technological competencies, sound contract management, and a strategic balance

between in-house logistics and outsourced operations to maintain competitive strength [14].

In another review, the focus was placed on outsourcing decision-making, outlining recent trends, evaluation criteria, and methodologies applied in practice [15]. An investigation centered on the UK pharmaceutical manufacturing industry provided insights into relatively underexplored outsourcing behaviors. The study revealed that the primary drivers for logistics outsourcing in this sector include improvements in quality and reliability, as well as cost reductions [3]. Additional research examined how time-based and cost-based competitiveness, along with customer-related performance, mediate the relationship between logistics outsourcing and financial outcomes. The findings suggest that logistics outsourcing has a positive effect on all three mediators and enhances financial performance overall. However, only time-based and cost-based competitiveness were shown to act as mediators in this relationship, while customer performance exhibited no direct mediating effect [16].

Furthermore, decision-making in logistics outsourcing has also been analyzed through the lens of behavioral and psychological factors. Using constructs from transaction cost economics, the core competence perspective, and the theory of planned behavior, one study demonstrated that, beyond objective assessment of logistics features, decision-makers also rely on subjective behavioral influences such as attitudes, perceived competence, and social norms. Notably, logistics is sometimes outsourced not despite its strategic significance, but precisely because of it [17]. A decision-support model was also developed to aid policymakers in quantifying perceived risks linked to outsourcing while simultaneously optimizing supply chain network configurations. This multi-phase model incorporates decision-makers' risk assessments and resolves a multi-objective optimization problem, generating solutions that balance overall supply chain costs with associated risks [18].

An evaluation of the primary risks confronting firms involved in international logistics outsourcing was carried out using a multi-criteria decision analysis method, specifically the q-rung orthopair fuzzy subjective weighting technique. The study identified key challenges such as loss of control over the external provider, misleading promotional claims, staff redundancies, and non-compliance with contractual obligations [19]. Further analysis of logistics outsourcing covered a broad spectrum of functions, including transportation, customs procedures, warehousing, documentation, software deployment, and cargo insurance. The study highlighted both the operational improvements gained and the possible disadvantages, such as heightened dependency and diminished oversight of logistics activities [20]. Another comprehensive assessment investigated how various factors influence logistics outsourcing decisions and their subsequent effect on logistics performance. This included financial metrics, collaboration and process characteristics, external environmental factors, and logistics outputs. Among these, collaboration and process-related variables were found to have the most pronounced impact, underscoring the importance of effective contractor management. Financial considerations were also shown to play a pivotal role in determining outsourcing strategies [21]. Moreover, when evaluating 3PL providers, it is imperative for decision-makers to focus on integration, coordination, and cooperation—elements vital for enhancing supply chain effectiveness [22]. One study sought to determine how these interconnected factors influence sustainable outsourcing decisions, highlighting the most critical variables that warrant careful consideration. Finally, risk management strategies in the context of supply chain disruptions have also been explored, with specific emphasis on how risks may be controlled and mitigated during recovery phases [23].

3. Risk Assessment

Despite the many advantages offered by outsourcing, a range of risks arises during its implementation. Consequently, risk assessment is a critical component of the decision-making process when outsourcing services. The primary aim of this chapter is to outline the risk assessment

process, detailing its key stages and raising awareness of the potential risks associated with outsourcing. Effective risk management can play a pivotal role in ensuring the success of logistics outsourcing, thereby enhancing a company's competitive edge. Risk management comprises two fundamental phases: risk assessment and risk control. The risk assessment phase involves three key processes: risk identification, risk analysis, and risk evaluation. In contrast, risk control encompasses two processes: risk mitigation (reduction) and risk monitoring. Risk analysis is an essential aspect of the outsourcing decision-making process. However, it is frequently overlooked, with risk identification, evaluation, and mitigation being conducted superficially, often treated as a mere formality. This neglect can lead to the mismanagement of risks both prior to and following the outsourcing decision, resulting in increased costs and competitive disadvantages, rather than the anticipated benefits. To achieve favorable outcomes, outsourcing decisions must be closely integrated with a robust risk management strategy.

3.1 Risk Identification

The initial phase of risk assessment is risk identification, which involves the recognition, categorization, and definition of risks associated with logistics outsourcing. Based on research, six primary categories of risk have been identified. Operational risks encompass challenges related to warehousing and transportation processes, while other general categories include financial, technological, informational, and relational risks. Operational risks typically involve issues such as inadequate infrastructure and handling, delivery delays, substandard service performance, lack of flexibility, and similar difficulties. Financial risks often include failure to achieve anticipated cost savings, increased expenditures, customer attrition due to poor service quality, hidden costs, and other financial setbacks. Technological risks are linked to poor integration of information systems and a decline in innovation, which can hinder operational efficiency and adaptability. Informational risks primarily concern the leakage of strategic and operational information, as well as the potential for information asymmetry between the client and the service provider. Relational risks mostly arise from suboptimal supplier relationships, reduced direct interaction between customers and suppliers, cultural differences, and other relational challenges [24].

3.2 Risk Analysis

The second stage in risk assessment is risk analysis, which involves identifying and defining the causes and consequences of various risks. The International Organization for Standardization (ISO, 2009) highlights two key components of risk: quantified losses and the uncertainty regarding their occurrence. The following provides an analysis of several risks associated with logistics outsourcing to better understand their underlying causes and potential impacts. This highlights the importance of risk analysis, preventative actions, and the necessity of negotiating contracts that minimize risks and unforeseen circumstances. A common risk in the implementation of outsourcing is inefficient management. If a company already possesses an effective and well-organized distribution system, outsourcing may not lead to reduced operational costs. However, if the organization is underperforming and the system is inefficient, outsourcing may appear as a tempting solution. Logistics managers involved in outsourcing must manage contracts and relationships with providers, but if the company has not effectively organized its internal systems, managing these outsourcing relationships may present challenges, often requiring more professional and skilled staff for contract negotiations. If the logistics provider modifies the way services are delivered, changes staff, or reorganizes operations, the client company must be informed of these alterations to respond appropriately and adapt to the new operational environment.

A significant risk in logistics outsourcing is the power imbalance between the company and the

provider. Many companies have limited knowledge of best practices in logistics contracts. Some organizations are only beginning to consider outsourcing, making the process of contracting with providers unfamiliar. Even for companies with prior outsourcing experience, the situation may not be much different. Outsourcing contracts typically last between three and five years, meaning past negotiations may have faded from memory, and the individuals involved may no longer be with the company. Often, companies fail to recognize the broader objectives or the interconnections between the decisions made by logistics, legal, and procurement departments. Logistics teams tend to focus on operational concerns, as these are their primary responsibilities. In small to medium-sized enterprises, the procurement department frequently lacks the time and expertise necessary to address the complexities of logistics contracts. Legal departments, while knowledgeable about business matters, primarily ensure that the outsourcing agreement aligns with the legal framework, which limits their contribution. Providers, in contrast, negotiate numerous contracts each year and possess considerable experience and expertise, giving them a significant advantage. Additionally, companies are often disadvantaged by poor timing in contract discussions, which typically commence only after the tender process and job allocation are completed. Contract values often amount to tens of millions of euros and may involve obligations extending over five years or more. Given the considerable sums involved, few managers are willing to pause or terminate an outsourcing project if certain contractual conditions are not being met. Best practices suggest that clients should create contracts before the tender is announced and establish clear conditions that providers must meet [25; 26].

Information asymmetry is a prevalent issue in logistics outsourcing. Providers often lack full knowledge of the company they are serving, and similarly, the company may have incomplete information about the logistics provider. For instance, if a logistics provider lacks insight into the outsourcing company's cost structure, the price they offer (and, consequently, the profit margin) may not align with the company's cost structure. Furthermore, outsourcing logistics services may reduce a company's logistical capabilities, leading to diminished innovation, which represents another significant risk. Over time, to remain competitive, a company must find new ways to deliver logistics services. However, a logistics provider does not necessarily guarantee innovation, as their primary focus may be on cost reduction, potentially overlooking opportunities for improvement during the contract period.

Many companies overlook the hidden costs of selecting third-party logistics providers, which can lead to unexpected expenses. Extra time and resources invested early on can prevent issues such as renegotiations or excessive monitoring. Outsourcing logistics can also create dependency on the provider, potentially leading to a loss of control over operations. This loss of control impacts the quality of information, early issue identification, and communication, which can cause service quality problems, delays, and increased costs. Additionally, insufficient visibility into delivery schedules can lead to underutilization of capacity. Challenges in evaluating and monitoring the performance of logistics providers represent another risk in outsourcing. To evaluate a provider's performance adequately, companies must develop clear criteria for assessing the provider's outcomes. However, this step is often neglected when developing logistics partnerships. Monitoring logistics outsourcing is a complex and resource-intensive task, requiring time, money, and expertise to establish an effective monitoring system and determine if the provider is performing satisfactorily. The worst-case scenario for a company is when the provider fails, leaving the client without access to essential services and systems. The risk of provider failure is a significant concern in logistics outsourcing, as there have been numerous instances where provider failures have disrupted company operations, sometimes removing firms from the market entirely [13].

3.3 Risk Evaluation

Risk evaluation is the third subprocess in risk assessment, building upon the results from the previous step of risk analysis. This phase involves comparing the identified risks to predefined acceptance thresholds to assess their level and priority. If a risk is found to be unacceptable, the next step is to explore appropriate strategies for its mitigation or elimination. In most instances, multi-criteria decision-making (MCDM) methods are employed for risk evaluation. Decision-makers typically have two approaches to choose from [24]:

1. **Ranking Risks by Priority:** This approach can be implemented using techniques such as the Analytic Hierarchy Process (AHP), PROMETHEE, or other multi-criteria ranking methods.
2. **Classifying Risks into Predefined Categories:** These categories generally include insignificant, low, medium, high, or extreme, depending on the risk severity.

3.4 Risk Reduction

To enhance service efficiency for companies and operational effectiveness for logistics providers while minimizing uncertainties associated with outsourcing, it is crucial to implement risk reduction strategies. The following sections outline key measures for mitigating these risks. One prevalent risk in logistics outsourcing is decision-making based on incomplete information, compounded by moral hazards arising from information asymmetry. Typically, one party holds more comprehensive information, while the other has limited access to critical insights. To address these challenges, effective mechanisms for information exchange must be established. Information technologies are pivotal in fostering a mutually beneficial environment, where both parties can make informed decisions. Key logistics data, such as costs, requirements, shipping schedules, and capacity, must be accessible, accurate, and timely for all involved stakeholders. Such transparency enables effective planning and strengthens partnerships. Performance indicators in logistics outsourcing should encompass both cost and service quality metrics. These indicators must systematically evaluate the efficiency of integrated services, accurately reflect the relationship between logistics companies and providers, and facilitate the seamless integration of logistics providers with their clients.

To reduce outsourcing risks and improve service levels, logistics providers must adopt performance strategies that align with the characteristics of the products being handled. Recognizing that different products have distinct logistical requirements is vital. Innovative products typically have high profit margins but exhibit unstable demand, whereas functional products tend to have lower profit margins with more predictable demand. Given these differences, logistics providers must tailor their service strategies accordingly. The approach for managing innovative products should differ from that for functional products to ensure optimal logistics performance and efficiency. The successful implementation of outsourcing also requires a strong focus on CRM. Unlike traditional customer service, which is often reactive, CRM in outsourcing takes a proactive approach, emphasizing problem-solving and the maintenance of close client relationships. The goal is to foster long-term partnerships rather than merely responding to dissatisfaction. By consolidating information from various communication channels and integrating all client-related processes, CRM enables companies to maintain a comprehensive, unified view of their customers. Often referred to as "backstage marketing," this approach combines marketing and logistics services to enhance the overall customer experience [13].

Advanced CRM practices in logistics outsourcing aim to:

- Reduce Logistics Costs
- Increase Profitability
- Strengthen Customer Relationships
- Enhance Customer Satisfaction and Loyalty

- Improve Information Accuracy and Accessibility
- Minimize Transaction Delays
- Streamline Service Processes

By effectively managing customer relationships, logistics providers can improve service reliability, optimize operations, and ensure long-term business success.

4. Risk Analysis of Distribution Outsourcing: A Case Study

Companies around the world are increasingly adopting distribution outsourcing as a means to reduce operational costs and enhance efficiency. However, while outsourcing presents numerous advantages, it also introduces several risks. These include hidden costs, communication barriers, misalignment of standards, and other factors that can significantly impact overall business performance. In this context, a semi-quantitative approach, specifically a risk matrix, was used to evaluate and assess the risks associated with distribution outsourcing. The company under review is an international retail chain, offering a diverse range of food and non-food products, with a direct delivery service to registered customers. This service is a key factor in enhancing its competitiveness in the market. Below is a summary of the operational data of the company:

- Percentage of Customers using Delivery Services: Approximately 15%.
- Own Fleet: 55% of deliveries are managed using the company’s own vehicles for short-distance deliveries within urban areas.
- Outsourcing: 45% of deliveries are outsourced to a distribution partner, primarily for long-distance routes exceeding 150 km.
- Billing Model: For deliveries beyond 150 km, charges are based on the distance travelled, with an additional flat fee of €150.

The risk assessment employed a risk matrix that incorporates ratings for both probability (P) and impact (I), each evaluated on a numerical scale from 1 to 5:

4.1 Probability (P)

- 1 – Extremely low likelihood of occurrence.
- 3 – Medium probability; the risk may arise under certain conditions.
- 5 – Extremely high probability; the risk is almost certain under the given circumstances.

4.2 Impact (I)

- 1 – Negligible impact; minimal effect on business operations.
- 3 – Medium impact; potential to disrupt operations but manageable.
- 5 – Catastrophic impact; severe threat to business continuity.

The risk matrix (Table 2) is created by multiplying the values of probability and impact ($R = P \times I$).

Table 2
 General Risk Matrix

	I = 1	I = 2	I = 3	I = 4	I = 5
P = 1	1	2	3	4	5
P = 2	2	4	6	8	10
P = 3	3	6	9	12	15
P = 4	4	8	12	16	20
P = 5	5	10	15	20	25

The resulting risk value is then categorized into five levels:

- Negligible (1–2): No action needed.
- Low (3–4): System is stable, but monitoring is advised.
- Medium (5–9): Ongoing monitoring and occasional corrective actions required.

- High (10–16): System is unstable; additional protective measures needed.
 - Extreme (17–25): Critical situation; immediate intervention required.
- Following a comprehensive analysis of the distribution process, 15 key risks were identified (as presented in Table 3).

Table 3
 List of Identified Risks

Risk Label	Risk Description
R1	Withdrawal of outsourcing partner – the partner suddenly terminates the cooperation.
R2	Financial instability of the outsourcing partner – risk of bankruptcy or liquidity issues.
R3	Vulnerability of data protection – potential leakage of confidential information.
R4	Reduced management involvement in provider selection – poor coordination of decisions.
R5	Deviation from the planned delivery schedule – delays and inefficiencies.
R6	Inconsistent number of vehicles according to the contract – lack of resources during critical moments.
R7	Mismatch in the number of employees between the company and the provider – problems in work organization.
R8	Mass departure of qualified personnel at the outsourcing firm – loss of expertise.
R9	Unclear responsibility in case of issues – confusion over who bears the consequences.
R10	Damage to company reputation – negative impact on the image due to poor service.
R11	Inconsistency in vehicle fleet (different models) – issues with service standardization.
R12	Potential conflicts between internal staff and outsourcing personnel – internal tensions.
R13	Insufficient training of contracted staff – low qualifications affecting service quality.
R14	Increased operational costs due to market changes – unexpected financial pressure.
R15	Decreased delivery service quality due to poor coordination – direct impact on customer satisfaction.

Each of these risks was evaluated in terms of its likelihood and potential impact on the company’s operations. The table below shows the quantified risk values, as well as the corresponding risk levels (Table 4).

Table 4
 Risk Assessment

Risk	P	I	R = P x I	Risk level
R1	2	4	8	Medium
R2	1	5	5	Low
R3	3	4	12	High
R4	3	3	9	Medium
R5	2	3	6	Medium
R6	2	4	8	Medium
R7	2	3	6	Medium
R8	4	4	16	High
R9	1	3	3	Low
R10	1	4	4	Low
R11	2	2	4	Low
R12	2	2	4	Low
R13	4	3	12	High
R14	2	2	4	Low
R15	1	1	1	Negligible

Note: Risks with ratings of 12 and above are considered highly critical and require specific mitigation measures.

To improve the clarity and interpretation of the findings, a visual risk matrix has been developed. The diagram effectively illustrates the distribution of individual risks according to their (P x I) values, with colour-coding used to represent the various risk levels (Figure 1).

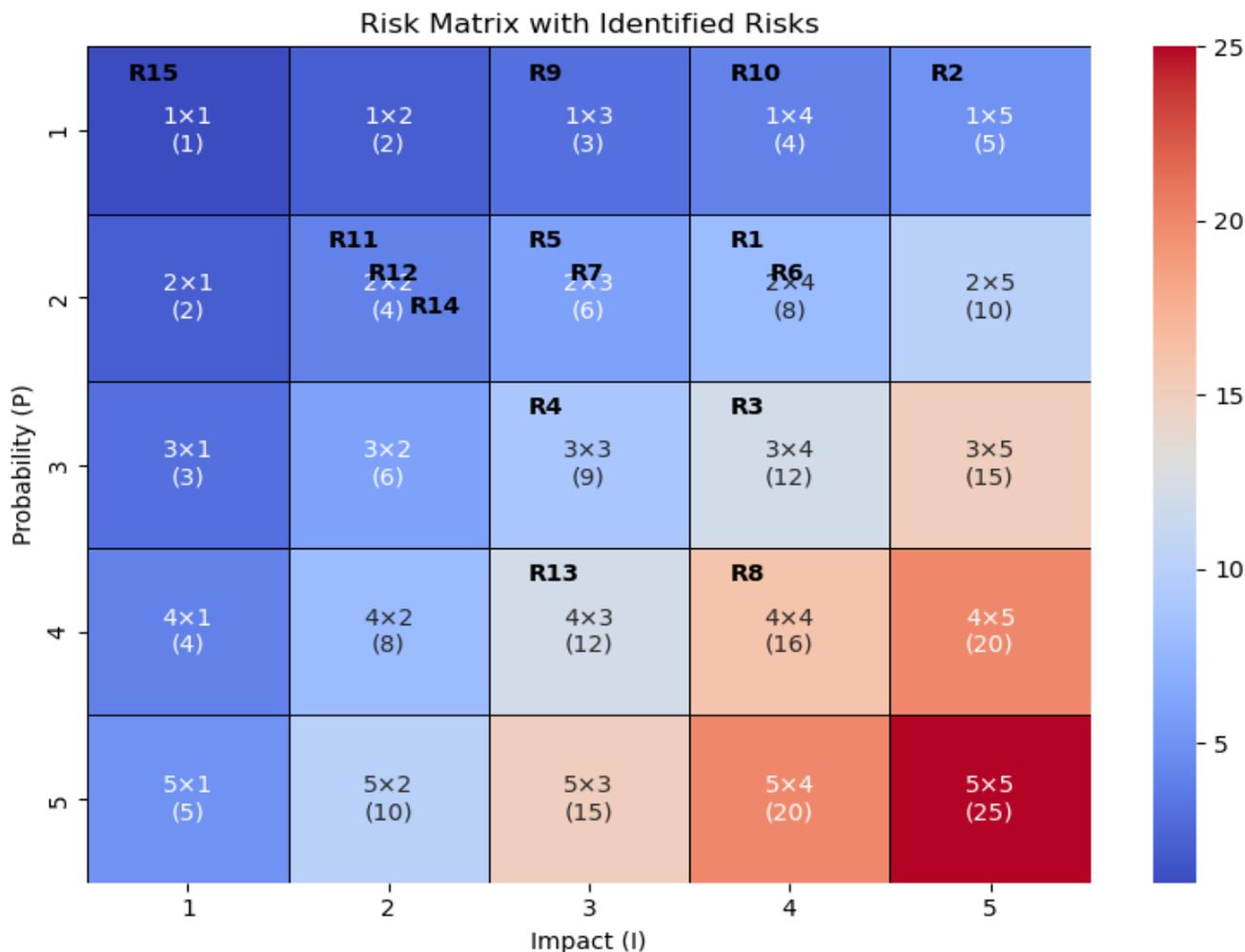


Fig. 1. Risk Matrix Based on Value of Probability and Impact

Below is a comprehensive analysis of the key risks and corresponding mitigation Measures:

4.3 Risk R3 – Data Protection Vulnerability

4.3.1 Description

The risk of confidential data leakage could severely damage competitiveness and erode customer trust.

4.3.2 Mitigation Measures

- Implementation of advanced IT security measures.
- Regular security audits and timely system updates.
- Employee training on data protection best practices.

4.4 Risk R8 – Mass Departure of Qualified Personnel

4.4.1 Description

The exit of key employees to an outsourcing partner could result in the loss of critical expertise and negatively affect service quality.

4.4.2 Mitigation Measures

- Introduction of employee retention programmers.
- Enhancement of working conditions and incentive structures.
- Close collaboration with the outsourcing partner to ensure effective knowledge transfer and continuous training.

4.5 Risk R13 – Insufficient Training of Engaged Personnel

4.5.1 Description

Inadequate training could lead to substandard service, operational errors, and customer dissatisfaction.

4.5.2 Mitigation Measures

- Regular training sessions and performance evaluations.
- Establishment of joint work standards between the company and outsourcing partner.
- Introduction of a mentoring system to guide new employees.

Additionally, for all identified risks, it is recommended to implement a continuous monitoring system and utilize enhanced Key Performance Indicators (KPIs) to swiftly identify and address potential issues.

5. Conclusion

Many companies outsource logistics services to focus on their core business, particularly when they lack the resources or infrastructure to manage these operations in-house. While outsourcing offers cost efficiency, improved service quality, and enhanced competitiveness, it also presents challenges. To maximize the benefits and minimize the drawbacks, a thorough risk assessment is crucial. Effective risk management is essential to ensure companies select the right provider and address potential risks. Risk analysis often receives insufficient attention, and without it, the benefits of outsourcing may be diminished. As the business environment evolves, new risks emerge, making continuous research important for staying competitive. A case study revealed key risks, such as data protection vulnerabilities, employee departures, and insufficient training. Mitigation strategies include IT security investments, employee retention programs, and comprehensive training initiatives. Regular KPI monitoring and open communication with outsourcing providers are essential for quick issue resolution. This study has limitations in the number of risks analyzed. Future research should apply this methodology to different companies and industries, and develop software tools to improve risk quantification and accuracy.

Data Availability Statement

The data used to support the findings of this study are available from the corresponding author upon request.

Conflicts of Interest

The authors declare no conflict of interest.

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