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The Impact of Risk Management on Marketing Activities in Global Supply Chains-Take Multinational Companies as an Example

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ABSTRACT

In the context of globalization, multinational companies increasingly rely on complex supply chain networks, but the supply chain risks (such as epidemics, trade wars, natural disasters, policy changes, etc.) have an increasingly significant impact on marketing activities. Therefore, how to improve marketing performance (MP) through supply chain risk management (SCRM) and supply chain resilience (SCR) has become an important concern for enterprises. This study aimed to explore the mechanism of SCM on marketing performance and verify relevant hypotheses through empirical analysis. This study expands the research on the intersection of supply chain management and marketing, and provides empirical support for multinational companies to optimize the supply chain to improve marketing performance. Managers should strengthen supply chain risk management, improve marketing stability, enhance supply chain resilience and improve market adaptability, and optimize the synergies between supply chain and marketing strategy.

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Introduction
Research Background and Importance
Driven by globalization, multinational companies continue to expand their supply chains to improve operational efficiency, reduce production costs, and enter new markets. However, the complexity of the global supply chain also brings greater risks, these risks may be derived from natural disasters (such as earthquake, hurricane), public health crisis (e. g., new outbreak), geopolitical conflicts (such as trade war, economic sanctions), policy changes (such as tariff adjustment, environmental regulations) and the uncertainty of technology and financial markets. These factors may lead to supply chain disruptions, rising costs, and product delivery delays, which in turn can affect corporate marketing activities, such as product pricing, brand image, consumer trust, etc. In recent years, supply chain risk management has become the core issue of global enterprise management. Enterprises need to adopt effective risk management strategies, such as supplier diversification, digital supply chain management, inventory optimization and flexible supply chain construction, to reduce the impact of external shocks on enterprise operation and marketing. In addition, the volatility of the supply chain requires the marketing teams to adapt to product positioning, pricing strategies and promotional activities to respond to rapid changes in the market environment. For example, during the epidemic period, some multinational enterprises were forced to delay the listing of new products due to supply chain disruption, adjust their sales channels, and shift from offline to online marketing mode to maintain market competitiveness. Although supply chain management and marketing have long been regarded as relatively independent fields, recent research has shown a close interaction between them. Effective supply chain risk management can not only reduce costs and improve operational efficiency, but also enhance market responsiveness, enhance brand reputation and customer loyalty. Therefore, studying the impact of global supply chain risk management on marketing activities not only has important theoretical value, but also provides practical guidance for multinational companies to develop more resilient marketing strategies.

Research questions
In the context of globalization and increasingly fierce market competition, supply chain risk has become one of the core challenges facing multinational corporations (MNCs). Effective supply chain risk management not only affects the production and operation efficiency of enterprises, but also profoundly affects the marketing strategies, such as product pricing, brand image, distribution channels and customer relationship management. However, the current academic research on how supply chain risk management specifically affects marketing activities is still relatively limited. Therefore, this study focuses on the following key issues: How does supply chain risk management affect the marketing strategy of multinational companies? This study will be based on supply chain management and marketing theory, combined with multinational company case analysis and empirical research, to reveal the core role of supply chain risk management in marketing, and provide reference for enterprises to develop effective marketing strategies.

Review of the Literature
Risk Management in Global Supply Chains
Supply chain risks can be classified according to different perspectives, such as source and scope of impact. According to the risk source: internal risk: internal risks derived from the enterprise, such as technical failures in the production process, management

errors, etc. External risks: risks from the external environment of the enterprise, such as natural disasters, policy changes, etc [1]. Supply chain risks are divided into two categories: endogenous risk and exogenous risk, emphasizing the diversity of risk sources. According to the supply chain node: Supply risk: risks related to suppliers, such as supplier bankruptcy, raw material shortage, etc. Production risk: risks that may occur during the production process, such as equipment failure, workers' strike, etc. Distribution risk: risks encountered in the distribution process, such as logistics delay, channel conflict, etc [2]. The supply chain is regarded as a supply network, and nine categories of risks that have a realistic impact on the operation of the supply network and its environment are summarized, including strategic risk, operation risk, supply risk, customer risk, asset damage risk, competition risk, reputation risk, tax risk and legal risk. According to the nature of risk: it can be divided into risks that may occur in daily operations, such as demand fluctuations, poor inventory management, etc. Risks brought about by changes in the market environment, such as changes in consumer preferences and increased competition. Financial-related risks, such as exchange rate fluctuations, capital chain fracture, etc. Risks caused by government policy changes, such as tariff adjustment, environmental regulations, etc [3]. Supply chain risks are divided into three categories: external environmental risk, natural disaster risk and operational risk, and on this basis, 21 risk types are subdivided, emphasizing the importance of comprehensively considering all kinds of risks to develop a comprehensive risk management strategy.

The Relationship Between Supply Chain Risk and Marketing
Supply chain risk is closely related to the marketing activities, and the risk factors in the supply chain will directly or indirectly affect the marketing strategy and performance of enterprises. The impact of supply chain risks on marketing Product delivery and customer satisfaction: Supply chain risks may lead to product failure to be delivered on time, affecting customer satisfaction and enterprise reputation, and thus leading to a decline in market share. Brand image and market trust: Supply chain interruption or quality problems may damage the brand image, reduce consumers' trust in the brand, and affect the marketing effect. The flexibility and stability of the supply chain directly affect the response speed of enterprises to market changes, thus affecting the timeliness and effectiveness of marketing activities [4]. Accurate market demand forecast helps in the production and inventory management of the supply chain, and reduces operational risks. Supply chain partnership integration: strengthen the cooperation with suppliers and customers, enhance the overall competitiveness of the supply chain through collaborative innovation, and reduce the negative impact of risks on marketing [5]. Supply chain risks and marketing activities mutually influence and restrict each other. Enterprises should strengthen the collaborative management of the two, and enhance the overall competitiveness through effective risk control and market strategy.

The Particularity of Supply Chain Management of Multinational Companies
The supply chain management of multinational corporations has the particularity of the balance between global operation and localized production, the complex cross-national coordination, the adaptation of legal and cultural differences, the global logistics challenges, risk management, diversified supplier network, information technology support, and environmental and social responsibility. As it involves many countries and regions, multinational companies need to face different policies and regulations, market environment and supply chain risks, and rely on digital technology to optimize the efficiency of supply chain

and improve the market response speed. Through supply chain flexibility, strategic partnerships and sustainable development strategies, multinational companies can improve the stability and competitiveness of their supply chains and maintain a leading position in the global market [6].

Research Hypothesis and Theoretical Basis
Based on the related theory of supply chain management and marketing, this study explores the influence of supply chain risk management on the marketing activities of multinational corporations.

• Theory of Supply Chain Risk Management
Supply chain resilience theory and supply chain resilience theory emphasize that enterprises can improve their adaptability through redundancy strategies, supplier diversification and digital monitoring in the face of supply chain disruptions or fluctuations. For multinational companies, supply chain resilience not only affects logistics and production, but also is crucial to the stability and sustainability of marketing activities.

The theory of resource dependence holds that enterprises rely on external resources (such as raw materials, suppliers and logistics) to maintain their competitive advantages, and supply chain management is the key link. Through effective supply chain risk management, enterprises can reduce the dependence on a single supplier and reduce the adverse impact of supply chain instability on marketing activities.

• Marketing-Related Theories
Market response model, which studies how marketing activities (such as price adjustment, promotion, advertising) affect consumer behavior. In the context of supply chain risk management, enterprises may adjust prices or promotion strategies due to supply chain interruption, affecting the market demand. Therefore, the effectiveness of supply chain risk management will affect the market response speed and marketing strategy adjustment.

Brand trust theory, supply chain stability directly affects product delivery, quality control and customer experience, and these factors determine brand trust. Good supply chain risk management is helpful to maintain the brand reputation, enhance consumers' trust in the brand, and improve the market competitiveness.

• Proposal of the Study Hypothesis
Based on the above theories, the study proposes the following research hypotheses:
H1: Supply chain risk management has a positive impact on the marketing performance of multinational corporations. H2a: Operational risk has a significant impact on marketing activities, and effective supply chain risk management can reduce its negative effects. H2b: Market risk will change the marketing strategy of enterprises and be regulated by the supply chain management ability. H2c: Financial risks have an impact on marketing investment decisions, and supply chain financial management can alleviate the impact of capital chain rupture on marketing activities. H3: Supply chain resilience plays a partial mediating role between supply chain risk management and marketing performance.

This study will verify the above hypothesis through empirical analysis and explore how multinational companies can optimize their marketing strategies through supply chain risk management to enhance enterprise competitiveness.

Research Methods

• Study Design

This study used quantitative research methods, combined with questionnaire survey and empirical analysis, to explore the impact of supply chain risk management on the marketing activities of multinational companies. A questionnaire survey was used to collect data on supply chain management and marketing by multinational companies. The empirical analysis method was used to test the validity of the research hypothesis. The research object is the multinational companies operating in the global market, covering the manufacturing, retail, technology industry and other fields. By combining random sampling with target sampling, enterprises with global supply chain management experience are selected for investigation. Descriptive statistical analysis was used to calculate the basic information of the sample.

Structural equation model (SEM) is used to verify how supply chain risk management affects marketing performance.

Regression analysis was used to examine the mediation role of supply chain resilience and to assess the impact of different types of supply chain risk on marketing activities.

• Variable Measurement

This study involved several core variables, including supply chain risk management, marketing strategies, marketing performance, and supply chain resilience. All variables were measured using the Likert five scale (1= "strongly disagree", 5= "strongly agree") to ensure the reliability and validity of the data. Independent variable, supply chain risk management. The dependent variable, the marketing performance. Intermediation variable: supply chain resilience.

Study Results and Analysis

This study provides a statistical analysis of the relationship between supply chain risk management (SCRM), marketing performance (MP), and supply chain resilience (SCR), based on 200 valid questionnaires.

Descriptive Analysis

Variable	Sample Capacity	mean	Standard Error	Least Value	The 25% Quantile	The 50% Quantile	The 75% Quantile	Crest Value
SCRM	200	3.49	0.44	2.15	3.23	3.47	3.75	5.06
SCR	200	3.57	0.50	2.19	3.29	3.58	3.86	5.04
MP	200	3.55	0.44	2.44	3.21	3.58	3.86	4.93

According to the descriptive statistics, the mean value of each variable was around 3.5, indicating that the evaluation of the surveyed enterprises in supply chain risk management, marketing performance and supply chain resilience was relatively moderate, and the data distribution was reasonable.

Correlation Analysis

Variable	SCRM	SCR	MP
SCRM	1.000	0.095	0.534
SCR	0.095	1.000	0.414
MP	0.534	0.414	1.000

The correlation between supply chain risk management (SCRM) and marketing performance (MP) is r = 0.534, which is a significant positive correlation, indicating that enterprises with better supply chain risk management also have higher marketing performance. The correlation between supply chain resilience (SCR) and marketing performance (MP) r = 0.414, a significant positive correlation, indicating that enterprises with strong supply chain resilience also had high marketing performance.

Regression Analysis and Hypothesis Testing

Ordinary least-squares regression (OLS) was used to analyze the impact of supply chain risk management (SCRM) and supply chain resilience (SCR) on marketing performance (MP). The regression results are as follows.

Variable	Regression Coefficient	Standard Error	T Price	P Price	And The 95% Confidence Interval
Constant Term	0.3121	0.210	1.489	0.138	[-0.101, 0.725]
SCRM	0.4153	0.045	9.141	0.000	[0.326, 0.505]
SCR	0.2879	0.043	6.719	0.000	[0.203, 0.372]

$R^2 = 0.418$, adjusted $R^2 = 0.412$, indicating that the model could explain 41.8% of the variation in marketing performance. The F statistic = 70.84, p = 6.64e-24, indicating that the overall regression model was significant. H1 (supply chain risk management positively affects marketing performance) is supported (p = 0.000), indicating that supply chain risk management has a significant positive impact on marketing performance.

H3 (supply chain resilience positively affects marketing performance) is supported (p = 0.000), indicating that supply chain resilience has a significant positive impact on marketing performance.

The regression coefficient β = 0.4153, p <0.001, indicating that the better the supply chain management, the higher the marketing performance. Supply chain risk management has a significant positive impact on marketing performance. The regression coefficient β = 0.2879, p <0.001, indicates that the stronger the adaptability and resilience of the enterprise supply chain, the better the marketing performance. Supply chain resilience has a significant positive impact on marketing performance.

Conclusion

Supply chain risk management has a significant positive impact on marketing performance. Enterprises with a high level of supply chain risk management also have a relatively high marketing performance. This shows that in the global supply chain operations, multinational companies reduce supply chain risks through supplier diversification, redundant strategies, digital monitoring and other methods, which helps to improve marketing performance, such as brand reputation, customer satisfaction and sales growth. Supply chain resilience has a significant positive impact on marketing performance, and enterprises with strong supply chain resilience have better performance in marketing. This shows that enterprises have stronger adaptability and resilience in the supply chain (such as rapid adjustment of supply chain and flexible response to demand changes), which can effectively reduce the negative impact of supply chain interruption on marketing activities and improve market competitiveness. The strategic value of supply chain management in the global market competition cannot be ignored. The results emphasize the close link between supply chain management and marketing. Multinational companies should not only focus on product promotion and sales, but also strengthen supply chain management to ensure the stability and sustainability of marketing activities. The optimization of supply chain management can directly improve the marketing efficiency, reduce the market share loss caused by supply shortage, and enhance customer loyalty.

The contribution of this study is mainly reflected in the expansion of the intersection of supply chain management and marketing research. Previous studies have paid more attention to the impact of supply chain management on enterprise operation performance, but this study further discusses the function mechanism of supply chain risk management and supply chain resilience on marketing performance, filling the research gap in this field. It provides empirical support, through data analysis, confirms the positive role of supply chain management on marketing performance, and provides empirical basis for enterprises to optimize supply chain management and improve marketing performance. It has important reference value for enterprise practice. The research results show that multinational companies should consider supply chain risk management and supply chain resilience simultaneously when developing marketing strategies, so as to improve the sustainability of marketing activities and market adaptability.

This study demonstrates the key role of supply chain management in the marketing performance improvement, and emphasizes that multinational companies should focus on risk management and resilience building in their global supply chain operation to ensure the effectiveness and sustainability of marketing activities. In the future, enterprises can optimize supply chain management and improve their ability to cope with market uncertainties, so as to enhance their global market competitiveness and achieve higher marketing performance.

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