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## **CHALLENGES AND IMPLEMENTATION OF BITING HAZARDS IN SUPPLY CHAIN MANAGEMENT**

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### **Abstract**

Supply chains means, it is a system that involves in organization, people, resources and data information in the practice of moving a commodity or services from supplier to end user. SCM is the process of designing, planning, implementation, regulation & measuring of Supply chain activities with the objective of making profit and performance, building an ambitious framework, leveraging comprehensive logistics, integrating supply with demand, aligning achievement globally. Industry should be aggressive and to be produced commodity as an innovative and enhanced one. Throughout this SCM application there are some challenges and Hazards are always implicated. Nowadays global markets defined by severely fast development in technology and end users demand. Both internal and external Hazards are involved in this domain. Like, operational hazards, financial hazard, political and Environmental hazards. These hazards are specific to organization and the mitigation measures adopted. Some of the critical risk factors are unpredictable. It is mandatory that organization should prepare Risk Management policy as comprehensive framework of SCM Hazards for assessment of risks and regulate the feedback to these hazards minimize the adverse impact of the organization. The work is supported throughout with reference to relevant literature sources. The purpose of this paper is to focusing the study of biting hazards that are involved in application of SCM in manufacturing industry.

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Keywords: SCM, Hazards, Ambitious, Integrate, Framework



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## **Introduction**

SCM is a system of designing, planning, executing, regulation and measuring of supply chain activities with the objective of making profit and performance of the organization. It is a structure of (decision making and execution) process and (material information and money) flows that goal to meet the end user requirements and supply chain happendifference phases. The supply chain depending on the logistic flows. And the objective of SCM is to build an ambitious framework, leveraging comprehensive logistics, integrating supply with demand and measuring performance globally. It contains Marketing, sales, production, commodity, design, procurement, logistics, and finance and information technology and services within chain of organization. SCM is a cross function approach managing raw materials to finished goods, and the movement of goods out from organization and toward to end user. The effect is to enhancing the number of organizations involves in satisfying end user. The overall objective of SCM is to reduce lead time and cost of the commodity. SCM is the peak apparatus for an industry to strengthen its proficiency. Supply chain strategies cannot be determined in isolation.

SCRM in a business environment is attempting and finding the threats which appears both internal and external hazards. Internal hazards are like operational hazard, logistic hazard, technological obsolescence, financial hazards, man handling hazards, system hazards etc. External hazards are like Political hazards, Environmental hazards, Market Hazard, Foreign Exchange hazard, legal hazards etc. Also Organization should prepare Risk Management policy as comprehensive framework of SCM Hazards for assessment of risks and regulate the feedback to these hazards minimize the adverse impact of the organization. There are risks in the SC when unexpected events disrupt the flow of materials or products in their journey from initial suppliers to final customers (Waters, 2007). .” Hetland (2003) explained that risk is an implication of a phenomenon being uncertain. The key difference between risk and uncertainty is that risk has some quantifiable measure for future events, whereas uncertainty does not (Waters, 2007; Khan and Burnes, 2007).

The analysis of the contents discovered by many researchers lacked the systematic assessment needed for identification, location, range, and analysis in a structured manner. It was noticed that utmost prevailing review articles on SCRM did not provide enough information about the selection procedure of assessment, sample size, classification methods, etc. to make the thorough analysis.

Risk management process (RMP) based on classification, content investigations, and synthesis of SCRM was not initiate in the literature. Hence, necessary to identify and examine the research design, techniques, and other investigation hazard management methodologies applied in SCRM. There is



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a robust need for understanding the SCRM content in a systematic manner and identify the new tendencies.

Several types of hazards are prevalent in the contemporary era. There is a terrible need to investigate the ancient methods, tools, and techniques adopted to manage risks. The minimum amount of knowledge on such happenings driven us to perform this work.

The SCRM development involves three main stages like, Hazard identification, Hazard Assessment & Hazard mitigation measures.

The first step towards hazard mitigation is to accurately identify it in the first place. Manufacturers would first need to establish a hazard contour and then endorse lively monitoring to keep it up to date.

Next is to clearly describe what possible impact a hazard event could have on the business organization. It is important to be aware significant impact on sales, margins or profit.

Finally, organization need to define both precautionary action plans and responsive action plans for the hazards. These stages can help to deliver the root for addressing hazards by using apt measures to protect the organization trademark.

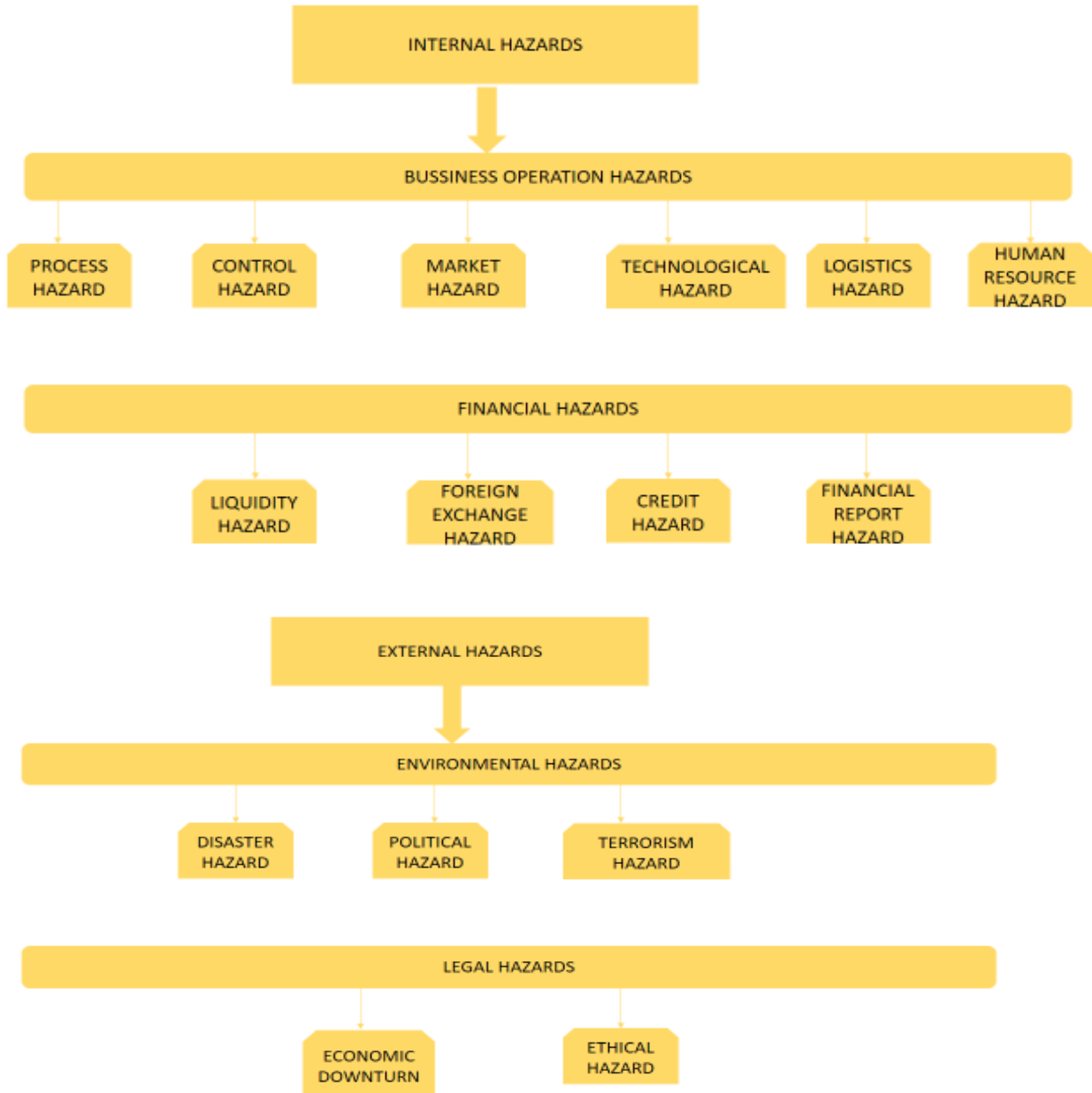
Supply chain risk management refers to the process by which businesses take strategic steps to identify, assess, and mitigate hazards within their end-to-end supply chain. There are both internal and external hazards that can interrupt the supply chain, so it's helpful to understand the difference between these two. We have classified into two broad category hazards.





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## **Internal hazards and mitigation measures**

### **Business operation hazards.**

#### **1. Process Hazards**

**Cause:** Hazards occur in related to the value added activities and managerial activities.

**Mitigation Measure:** The organization structure should be well defined with the focus of role clarity. Selection of technology, standardization of processes, clear SOPs, training, upkeep of assets etc. Proper training and development, incentives and reward system for employees at all levels.

#### **2. Control Hazards.**

**Cause:** Hazards occur in related to the sizes, order quantities, safety inventories or stocks, and assets. Inaccurate forecasting and assessments and poorly planned production and management.

**Mitigation Measure:** Appropriate systems are in place in relation to maintenance of inventories of raw materials, consumables, key spares and tools to ensure their availability for planned production programmes.

#### **3. Market Hazards:**

**Cause:** This Hazards occur in related to the Supply, Demand, Quantities, Qualities, Suppliers and lead time, competition, high cost.

**Mitigation Measure:** Tracking micro and macroeconomic level data, market trends and forecasts by expert agencies, internal review by team of experts.

Developing a good understanding and tracking of movement of rates of raw material at macro level, keeping a track on global and domestic economy, climatic conditions, geopolitical factors, global demand and supply, trade policies etc.

Alternative sources are developed for uninterrupted supply of raw materials.



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Demand and supply are external factors on which organization has no control. However based on experience gained from the past and by following the market dynamics as they evolve, movement by competition, economic policies and growth patterns of different segments, the Organization is able to estimate the demand during a particular period and accordingly supply is planned and adjusted.

The Organization takes specific steps to reduce the gap between demand and supply. Proper inventory control systems have been put in place.

The Organization has been increasing operational efficiency and continues to take initiatives to move up the quality control scale besides cost reduction and cost control initiatives.

Effective steps are being taken to reduce cost of production on a continuing basis through focus on cost realization, budgets, budgetary controls, management control system, close watch on market dynamics etc.

On competition side, keeping a close watch on competitor's strengths and weaknesses, competition dynamics etc.

#### **4. Technological Hazards**

**Cause:** Hazards occur in relation to the obsolescence of technology, EDP system based which organization believes that is a practical reality.

#### **Mitigation Measure:**

Technological obsolescence is evaluated on a continual basis and the necessary investments are made to bring in the best of the prevailing technology.

EDP department maintains and upgrades the system on a continuous basis with personnel who are retrained in software and hardware.

The organization ensures "Data Security", by having access control/restrictions.

Data backup should be taken on a regular basis and in a methodical way. Installation of anti-virus software to create firewalls.



## 5. Logistics Hazards

**Cause:** Hazards occur in related to the transport outsourcing.

**Mitigation measure:** The organization should have a dedicated transport team to grip all constraint related to movement of all type commodities. (Raw material, finished product & Scrap etc.)

## 6. Human Resource Hazards

**Cause:** Hazards occurs in related to Human Resources man handling, labour Turnover, training, skill, conflict of strikes and lockout etc.

**Mitigation Measure:**Ensuring that the right person is assigned to the right job and that they growandcontribute towardsorganisational excellence.

Organization should have proper recruitment policy for recruitment of personnel at variouslevels in theorganization.

Proper appraisal systems with the participation of the employee and consistentwith job content, peer comparison and individual performance for revision ofcompensationonaperiodicalbasishasbeenevolvedandfollowedregularly.

Inculcateinemployeesasenseofbelongingandcommitmentandalsoeffectivelytrain theminspheresotherthantheirown specialization.

Ensure activitiesrelatingtotheWelfareof employees.

Employees are encouraged to give suggestions and discuss any problems withtheirSuperiors.

Effortsaremadetokeep cordialrelationswithemployeesatalllevel.



## **Financial Hazards**

### **Liquidity Hazard**

**Cause:** Hazards occur in related to cash management, financial solvency and liquidity.

**Mitigation Measure:** Proper financial planning is set in place with detailed Annual Business Plans discussion should be at appropriate levels within the organization.

Annual and quarterly budgets are prepared and put up to management for detailed discussion and an analysis of the nature and quality of the assumptions, parameters etc.

These budgets with Variance Analysis are prepared to have better financial planning and study of factors giving rise to variances.

Daily and monthly cash flows are prepared and monitored at senior levels to access the fund requirements and ensure utilization of funds in an effective manner.

Cash management services are availed from Bank to ensure efficient collection and utilization of funds.

### **Credit Hazards**

**Cause:** Hazards occur in related to liabilities and outstanding dues

**Mitigation Measures:** Systems set in place for assessment of credit worthiness of dealers/customers. Provision for bad and doubtful debts are appropriately made in books of accounts.

Appropriate recovery management and followup.

### **Foreign Exchange Hazards**

**Cause:** Facing foreign currency exposure for organization sales in other countries and from organization purchases from overseas suppliers in U.S. dollars and other currencies and are exposed to substantial hazards on account of adverse currency movements in global foreign exchange markets.





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**Mitigation Measure:** The objective of our risk management policy is to minimize risk arising from adverse currency movements by managing the uncertainty and volatility of foreign exchange fluctuations by hedging the risk to achieve greater predictability and stability.

Foreign currency exposures are recognized from the time an import/export order/contract is signed and as per contractual maturity prior to opening of Letters of Credit and/or Purchase Orders by customers.

Without venturing into the speculative aspects of dealing in currency derivatives, we aim to cover foreseeable fluctuations with a hedge cover as per policy.

Our risk management policy on foreign exchange has been approved by the Board of Directors and includes separate front and back offices for forex dealings, implementing hedging strategies for foreign currency exposures, specification of transaction limits; identification of the personnel involved in executing, monitoring and controlling such transactions.

## **Financial Reporting Hazards.**

**Cause:** Hazards occur in related to changing laws, rules and regulation of accounting, corporate governance and public disclosure, Securities and Exchange Board of India (SEBI) rules, and Indian stock market listing regulations creates uncertainty for the Company.

Their application in practice may evolve over time, as new guidance is provided by regulatory and governing bodies which could result in continuing uncertainty regarding compliance matters and higher costs of compliance as a result of ongoing revisions to such corporate governance standards.

Accounting fraud or corporate accounting fraud are disgraces of business arising out of misusing or misdirecting of funds, overstating expenses, understating revenues etc.

**Mitigation Measure:** The organization should ensure to maintain high standards of corporate governance and public disclosure and to comply with the evolving laws, regulations and standards. Managing risk assessments, applying and monitoring code of conduct for key executives Instituting Whistle-blower mechanisms.



Adhering to internal control practices that prevent collusion and concentration of authority

Employing mechanisms for multiple authorization of key transactions with cross checks

Creating a favourable atmosphere for internal auditors in reporting and highlighting any instances of even minor non-adherence to procedures and manuals and a host of other steps throughout the organization.

## **External Hazards**

### **Environmental Hazards**

The organization endeavors to protect the environment in all its activities, as a social responsibility. The legal exposure in this regard is when polluting materials are discharged into the environment by causing danger to fragile environmental surroundings is an offence. Environmental hazard classified in to three category like Disaster, Political & Terrorism.

**Disaster Hazard:** Hazard occur in relation direct or indirect disaster. Impact include human losses, property losses, resources and environmental destruction, ecological damages, disruption of social order, and threats to the normal functioning of lifelines and production

**Mitigation Measure:** Prevention and mitigation strategies should work towards reducing the financial and social costs to communities over time, improving the built environment, and reducing the impact on, and damage to, the environment.

Investment in insurance policy for organization, disaster risk prevention and reduction enhances the economic, social, health and cultural resilience of people, communities, countries and their assets, as well as the environment.

The effective prevention of disaster events includes multiple strategies to reduce or remove the impact of hazards and increase the resilience of the organization. Disaster managers at all levels of disaster management arrangements are responsible for using a proven risk management process to identify prevention and mitigation options.



## **Political Hazard**

**Cause:** Hazards occur in related to the nonmarket factors as macroeconomic and social policies. fiscal, monetary, trade, investment, industrial, income, labour, and developmental, or events related to political instability

**Mitigation Measure:**The simplest way to manage political risks is to avoid investing in a country ranked high on such risks. Adaption by means of hazards incorporation like local equity an debt, Developmental assistance &Insurance. Influencing local politics through lobbying is another way of managing political risks.

## **Terrorism Hazard**

**Cause:** Hazard occur in related to Terrorist acts can cause ripple effects through the economy that have negative impacts. The most obvious is the direct economic destruction of property and lives. Terrorism indirectly affects the economy by creating market uncertainty, xenophobia, loss of tourism, and increased insurance claims.

**Mitigation Measure:** stronger and more resilient as a result of a strengthen organizationsecurity.

## **Legal Hazard**

Hazard in which the organization is exposed to legal action which include economic downturn and ethical hazards. TheCompany is governed by various laws and the organization has to do its business withinfourwallsof law,wheretheorganization isexposedtolegalrisk exposure. Economic downturn and ethical hazards are considered as legal Hazards.

## **Economic downturn Hazard:**

**Cause:** Hazard occur in related to the inevitability of economic downturns makes them oneof the more significant risks that capital-intensive, highly leveraged organizations face. Rising unemployment, falling share and house prices, low consumer confidence and declining investment.

**Mitigation measure:** Assessing business health, maximizing skill knowledge, implementing changes, satisfying employees and end user's needs, proactive thinking about long term business to accomplish more efficiently.

## **Ethical Hazard**

**Cause:** Hazards occur in related toHarassment and Discrimination in the Workplace,



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Health and Safety in the Workplace, Whistleblowing or Social Media Rants, Ethics in Accounting Practices, Nondisclosure and Corporate Espionage, Technology and Privacy Practices.

**Mitigation measure:** Honestly assess your needs and resources, Establish a strong foundation, Build a culture of integrity — from the top down, Keep a “values focus” in moments big and small, Re-evaluate and revise as needed.

## **Conclusion:**

In this articles multiple taxonomies have been established to understand the contribution of academia and practioner for SCRM to identify, locate, select and analyze the extant of SCRM study in structured manner. The article classification scheme is unique in that aspect not only considered generic elements but also considered hazard based entities and presented an RMP based on classification, causes and mitigation measures of SCRM. It is found that hazards and different forms of uncertainties make sc process difficult to manage. The outcome of above articleis summarized as follows.

In this article hazard based content classification of SCRM literature was found and performed using SLR method and trends were analyzed. To this end systematic and structured process were adopted.

It is considered not only generic but also hazard based activities.

Even after diversifying the strategies all hazards cannot be avoided. It is uncertainty and unpredictable. But mitigation planning provides organization with precautionary methodology and decision making process in facing unpredictable losses being caused by unexpected events. SCRM can be vary from manufacturing industry and service industries also one organization to other. With this socio economic, political and cultural dimension can be considered as important hazards in order to manage the supply chain hazards.

The article provide partial support for applying mitigate measure context to supply chain. The prioritized factors are identify, assess and action plan for hazards.

These hazards are controlled effectively and efficiency of supply chain would maintain a balancing financial consideration and that of end user.



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