

## Logistics Management: Risk in Supply Chain Industry in the UAE

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### Abstract:

Logistics as a discipline in business strategy has emerged from real military expeditions that directed the success of war fare all through the century of modern civilization. Logistics affects marketing and influences customer service in the market. It contributes to the success of the business, to the welfare of society and to satisfaction of customers. Logistics is critical to marketing strategy, to the economic structure of nations and to the standard of living.

In today's fast-paced and turbulent global economy, the topic of risk management has gained significant interest in the business and academic world. However, in practice, risk management remains rather underdeveloped and often dealt with in an informal and reactive manner. Credit risk is the distribution of financial losses due to unexpected changes in the credit quality of counterparty in a financial agreement.

Risk is an integral part of business. It is interwoven in the very fabric of life itself and is required to ensure growth. It is imperative therefore organization learn to recognize and manage risk. This paper aims in understanding the concept of logistic management and the need further analysis of credit risk management in logistics supply chain industries. The paper introduces the reader to different types of risks prevalent and how the risk measurement is used in management of risk and profitability. The paper throws light on the sources of credit risk and the credit risk management. This will highlight the benefit that accrues to logistics organization with a good risk management framework.

**Key words: Logistics Management, Credit Risk, Supply Chain Management, Credit Risk Management, Credit appraisal, Zero Credit Risk, Credit Limit.**

### Introduction

Logistics is the art and science of managing and controlling the flow of goods, energy, information and other resources like products and services from the source of production to the marketplace. It is difficult to accomplish any marketing or manufacturing without logistical support. It involves the integration of information, transportation, inventory, warehousing, material handling, and packaging.

In a planned organizational set up it is necessary to keep the risk-taking and risk-control functions

separate. However, while creating a balanced organizational structure it is borne in mind that the primary goal is not to avoid risk that are inherent in a particular business but rather to steer them consciously and actively to ensure that the income generated is adequate to the assumption of risks. All organization deals with risk though the nature and magnitude may differ for each type of organization. It is imperative therefore organizations' learn to recognize and manage risk. The three aspects of the risk management are risk identification, risk quantification and risk control. This has to be part of the risk management system within an overall risk management policy of the organization.

Logistics companies are making a risk evaluation of its operative business, and aims to protect itself from known risk factors. The goal of Logistics companies risk management is to minimize the harmful effects by the changes in finance market on the group's result and equities. The policy for managing financial risks is based on the main principles of finance approved by the Management or by the Group. Finance operations are responsible for daily risk management according to the limits set by the Management.

### Concept of Logistics Internationally

Logistics is the management which synchronizes providing actions as procurement, production, sales, and distribution with demands. It aims to enhance corporate competitiveness and increase corporate value by realizing fulfillment of customers' satisfaction, cutback of unprofitable inventory and minimization of its transfer, and reduction of supply costs. To achieve those objectives mentioned above, collaboration of companies concerned is essential and development of logistics using supply chains is strongly required.

### Concepts of Logistics in United Arab Emirates

In logistics industries in UAE 80% of the revenue is generated by 20% of the customers. Any disruption in these revenue sources would cause revenues to fall sharply. There are 1200 registered logistics companies under the UAE chamber of commerce. Dubai has more than 60 per cent of the entire Middle East's imports moving through its borders. With a logistics market growing at a rate of 20 per cent annually, Dubai is now driving even further growth through the creation of the most comprehensive facility of its kind anywhere in the world - the Dubai Logistics City (DLC). (Source: The Sunday Times, Business Section and Booklet of DLC Date; 07.04. 2013).

### Risks in Logistics Organizations

#### Currency Risk:

Risk of losses associated with adverse exchange rate movements in relation to domestic currency during a period is known as currency risk. This may be on account of maintaining an 'Open position' in an individual currency for Spot transaction, Forward transaction or combination of spot and forward transaction. In logistics organization the currency rate risks are caused while dealing in foreign currencies for the freight payments and in import or export transactions. (S.K.Bagchi, 2006&2011)

**The liquid risk** is on account of the company's inability to meet its liability when payable and when the company is unable to arrange for alternative funding. The purpose of liquidity risk management is to ensure sufficient financing in all situations.

**Inter estrate risk** may be defined as probability of loss on account on movement in interest rates, having an effect on the value of assets, liabilities, net interest income and net interest margin over a period of time. Interest risks in logistics companies derive mainly through debts and bank overdraft interest. The purpose of interest risk management is to diminish the effect of market interest changes on cash flows. (Dun, Bradstreet, edition 2007)

The earning risk is due to the variance between the revenue and cost of sales budgeted against the actual revenue and cost of sales. The companies try to protect its gross margin % and earning quality and stability by providing value added services to the customer.

#### **Capital Risk**

The size of the owner's stake in the organization determines the size of its operation. The composition of the capital depends on its resource mobilization capacity. According to the Basel Committee, capital base is one of the three pillars of risk assessment. The other two being supervisory role and market discipline. (S.K.Bagchi 2006&2011)

**The market risk** consists of market of trend, price driven by the demand and supply from the various destinations, space allocation from the shipping and the airlines, quality of investment portfolio, interest rate volatility and sensibility, foreign exchange fluctuations, hedged and un hedged components equity and commodity risk.

#### **Operation Risk**

This really is an omnibus type of risk as it covers the entire gamut of activities in an organisation. The main components of operational risk are people risk, technology risk, legal risk, reputation risk, operating environment risk, documentation risk, shipment clearance risk, shipment handling risk, etc.

#### **Business strategy and environment Risk**

This is a type of risk, which covers the external environment and macro economic factors, strategy with regard to market share and geographical spread, business profile using SWOT analysis, strength of competitors, experience and skills of key personnel in the organization and adequacy and compatibility of IT systems and business needs.

Credit risk is caused by the other party neglecting to fulfill their obligations according the agreement. The goal of managing credit risk is to minimize losses which are caused by the other party neglecting their obligations. The company will manage the risk from other parties based on the customer credit rating. The customer's credit rating will define, whether credit limit can be granted, or whether a collateral is required for the transaction. (Chris Morrison 2005).

#### **What is credit risk?**

"Probability of loss from a credit transaction" is the plain definition of the credit risk. In the book Risk Management (McGraw-Hili), Michel Crouhyhas defined credit risk as "the risk of loss following a change in the factor that drives the credit quality of an asset". In short the degree to which it is likely that a borrower may not repay a loan or debt.

#### **Reasons for the credit losses in logistics Organization**

For Logistics organization the loss from the credit risk are usually very severe and not infrequent. Therefore it is necessary to look into the reasons for credit losses which can be due to any of the following reasons based on the in-depth interview with an expert working in the Logistics Company, UAE.

When a customer fails to pay the amount.....

- On the due date for the service rendered by Logistics Company.
- Capital due to a service failure
- For some services which are statutory requirements but not mentioned in the quotation
- Due to change in the freight charges charged by shipping line and/or airlines
- Due to incomplete information in the invoices
- Due to the use of wrong charge code
- Delay in receipts of original invoices
- When the charges are not as per the explicit agreement
- Due to customer's insolvency

- due to the stock discrepancy
- not as per the service level agreement

Credit risk is risk due to uncertainty regarding the counter party's ability to meet its obligations because there are many types of counter parties from individuals to sovereign governments and many different types of obligations. Credit risk takes many forms. Logistics organization measures it in different ways. They are Probability of default - what is the likelihood that the customers will default on its obligations either over the life of the obligation or over some specified horizon probably by months. For this ageing schedule of accounts receivables are prepared and monitored.

**Exposure at default** - It is the outstanding amount at the time of default. In the event of default, it indicates the amount of outstanding obligation. For a logistics organization generally at the time of default the shipment will not be cleared and the customer will be made to pay the outstanding amount plus the storing and handling charges of the existing shipment

**Financial ratios** - Some of the financial ratios are used to measure the credit risk.

Debtors Turnover Ratio = Credit Sales / Average Debtors, and

Average Collection Period = Outstanding Receivables / Annualized Credit Sales x 365 days (James C Van Horne, John M Wachowicz, edition 2008 & 2013),

### **Challenges facing by logistic supply chain industries**

One of the biggest challenges facing the industry today is that of security, according to Ram Menen, Emirates Divisional Senior Vice-President Cargo... "The lack of clearly defined policies is adding latent costs to the supply chain. On the one hand, the economy seems to be recovering; on the other however, the high cost of energy is leading to hesitant growth". The creation of new markets and the abolishment of the quota system by WTO are going to lead to a consolidation in various segments of the industry.

Bore says that some companies have not yet realized the importance of the supply chain to the overall performance of their business, and look at logistics companies as merely a collection of sheds and trucks, they say. The foresighted companies look to their logistics providers as stakeholders in their overall business and work with them to reduce their overall costs and improve operating efficiencies.

### **Third Party Logistics (3PL)**

The use of third party logistics is increasing across the region as markets mature and companies focus more attention on supply chain performance as an overall business

strategy. The uptake of 3PL in the Middle East is occurring at differing levels throughout the region, ranging from sophisticated operations in Jebel Ali, to fledgling outsourced operations in less developed areas.

According to Dag Bore, veteran logistics specialist and expert, 3PL is becoming more important because, consistent with highly developed economies, more companies seek to outsourcing logistics tasks. 3PL is becoming more important as more organizations are seeking to outsource logistics activities across the supply chain.

He predicted that global/international, regional supply chain strategy will affect local supply chain strategy and often be executed through the 3PL. Supply chain performance is becoming a new strategic weapon in market growth and business performance.

Logistics organization in Jabel Ali will continue to be a value-added supply chain strategy, particularly for emerging and developing markets, while supply chain strategy will focus on improving inventory turn and variable cost - supported by 3PL business model.

### **AGCC CUSTOMS UNION**

While the unification of the AGCC was initially thought to pose a threat to Dubai's position as a regional logistics hub, this has since been proven to be an arguable point, says Bore. Dubai has demonstrated time and again that it will work proactively with the union to benefit the client.

### **LOW MARGINS**

Logistics is considered as a low margin-high volume business, says Menen. Nothing much has changed since some live years ago when the margins were as low as live per cent. In fact, in the global logistics business, margins (yield related) have come down. Profitability in any business today depends on the efficiency of the organisation's supply chain.

According to Bore, a few years ago there was a lot of surplus capacity in the local market in terms of storage facility. This in turn leads to aggressive selling and shortsighted competition on price, which ultimately undermined some of the macroeconomic foundations of the free zone.

Today, as a result of this trend, the local industry is seeing buy-outs, mergers and acquisitions as these companies struggle to provide a support network for this capacity. Today, market rates have realigned to come in line with international standards.

No one in the freight industry will admit the margins are growing but they always cry about how thin it is in public forums,

### **Rationale for conceptual literature review**

After the literature review, study has come to a conclusion that no company can run efficiently

without proper credit risk management. Supply chains are as interconnected as they are complex, and this is one reason why managing risk has become top of mind for companies that need to do something about it by reducing consequences via resilience and by reducing probability through security. The credit risk management has only recently gained traction among supply chain practitioners. The complexities of the global supply chain go a long way in creating the need for better risk management, particularly with raw materials and product shipments (to customers) moving across multiple borders. The end results are a highly vulnerable and fragile supply chain. The success of the supply chain is a function of the entire network.

The objectives of the credit risk management are to identify, measure, monitor and control expected losses from each credit transaction. It facilitates the credit decisions and risk mitigating steps in an integrated manner keeping in view the intimate relationship in a credit portfolio of correlation and volatility. The logistics company should obtain the maximum benefits of diversification try to reduce the risk of unexpected happenings in freight activities because of the occurrence of the events arising out of the market conditions.

Most organizations struggle with inefficient credit processes, complex and inaccurate counter party data and lapse of required information to make timely credit risk decisions. The company can leverage information to make risk-adjusted decisions, utilize best practice methods for reducing credit risk exposure and improve reporting to the line managers and the management on regular basis. The best strategy for successful risk management is the development of day-to-day processes with the help of ageing schedule of accounts receivables, the credit limit analysis and the payment terms that can scale in times of crisis.

Risk planning is the key to establishing a common understanding of the project's key parameters, sensitivity to risk, how the risk management process will work and how the results will be documented. To keep in mind the risk sensitivity varies widely depending upon the industry, company culture, personalities and the customer.

To manage the credit risk the company should establish credit risk priority taking into account the strategic and organizational context, as well as its likelihood and possible cost. Once risks are prioritized, each customer's account needs to be assessed for the impact if the risk event occurs and likelihood or probability that the risk event will occur. Assessments should then be made jointly by the credit control department to gain agreement involving development & implementation of plan with specific counter measures to minimize the risk. Considering the

strategic & operational priorities it has to be decided whether to kill the risk, to transfer the risk, etc by using human, financial, technical & other sources. The credit department should elucidate and implement a strategically sound framework based on the budget/plan and current scenario. It should determine as to who is responsible for implementing the risk response plan. Continuous monitoring and reacting to developments are vital to a successful risk process. All customers' account should be reviewed on weekly basis by the credit control manager. Major issues should be reviewed by the Finance Manager. (AFTB journal, May 2004)

Each logistics company should have credit risk management committee. The committee should be responsible for the implementation of credit risk policies, monitor the credit risk and recommend to the management or the group on the clear policies for presentation of credit proposals, rating standards and benchmarks. It should also review the credit limit utilization and the terms agreed.

### **Conclusion**

In logistics organizations' different departments mostly work independently which should not be the case. The sales and credit departments are often at cross-purposes because of this. The objective of the sales department should be broader than increasing sales revenue and that of the credit department greater than just to minimize bad debt. In reality the managers of the sales department and credit department should work together to agree on a risk/return position. In the credit approval process, an individual's financial position is compared against a norm and can be evaluated on past performance if it will mean a good or bad account. The expected expense can be compared to the expected value of the account when the customer falls into the category between acceptance or rejection. If the expected value of the sale exceeds the expected expense, the sales manager could choose to accept the account and the risk. The sales department acquires credit from the credit department just as it would from another department. Hypothetically, each department could be evaluated as a profit center. Top management should be careful to evaluate and reward according to integrated goals to encourage interdepartmental communication.

In logistics industries the credit appraisal method followed in different companies are not the same. As there is no standard credit appraisal method and lack of communication between the industries the customers in case of default payment takes the advantage to shift their business to other logistics providers. Hence the company should take care of the following:

-Expected and unexpected losses, which should be estimated on consistent basis with reliable data backup.

-There must be a balance between income and risk level

-Adequate safety nets must be built should estimates and actual at any time widely varied putting the organization in peril

#### **The merit of credit management includes:**

-Assured cash flow to the enterprise More focus on the growth of business smooth relationship among the organization-Better capacity to negotiate with financial institutions. Better trading relations with customers

-Fair balance sheet -Competitive advantage over business counterparts and last but not least the peace of mind(AFE Journal, June 2008)

-Logistics companies can incorporate the following as a solution for credit risk setting up of a good team of qualified professionals to analyze the market conditions and to make sure that cash is flowing in with reasonable accuracy -Insured by taking credit insurance policy, so that we can effectively hedge against bad debts and mitigate the risk from potential bad debts.

-Customers having diversified business will help the supply chain company to ensure that their pockets will be full with money under a recessionary scenario also. So the supply chain companies ensure that they are providing space and service to customers dealing various products. (AFE Journal, June 2008)

-Zero credit risk is not a reality. A very high quality credit appraisal, post-disbursement supervision and follow up may, in most situations, facilitate the maintenance of asset quality of exposure at the individual and portfolio level without any downgrade. But expecting a credit exposure to have Zero risk at all times is Utopian dream. Statistical analysis does not support 100% certainty in recovering the exposure in any situation whatsoever. Some element of risk will always remain, even in latent form, whatever the quality of appraisal and supervision for an exposure. (S.K.Bagchi 2006& 2011)

**In conclusion**, the evolutionary risk management processes accompanied by a radical shift in business risk culture are required to achieve competitive advantage through supply chain credit risk management. Thus an appropriate credit risk management structure is paramount in the organization's interest.

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