Abstract

Risk Management means the identification, analysis, assessment, control, and avoidance, minimization, or elimination of unacceptable risks. An organization may use risk assumption, risk avoidance, risk retention, risk transfer, or any other strategy (or combination of strategies) in proper...
management of future events. Risk Management is necessary for Logistics Air freight forwarders. A hedge is used to reduce any substantial losses or gains suffered by an individual or an organization. The purpose of this paper is to evaluate the possible risk management tools for air freight forwarders as well as to develop a risk management strategy in the relationship with their customers. A study has been done to list down the benefits from the flexible pricing in long term contracts and financial hedging from the air freight forwarders point of view. The conclusion from the paper are, that air freight forwarders can profit by having a price clause in long term contracts and by using financial hedging to protect them against rising fuel costs in the global scenario.

**Key Words:** Risk management, Air freight Pricing, Financial Hedging.

1 INTRODUCTION

Risk Management means the identification, analysis, assessment, control, and avoidance, minimization, or elimination of unacceptable risks. An organization may use risk assumption, risk avoidance, risk retention, risk transfer, or any other strategy (or combination of strategies) in proper management of future events. Hedging is one of the tools of risk management. A hedge is an investment position intended to offset potential losses or gains that may be incurred by a companion investment. In simple language, a hedge is used to reduce any substantial losses or gains suffered by an individual or an organization. The paper studies the Risk Management Analysis in Air Freight forwarding with respect to Imports. Improved risk management performance is one of the tools to mitigate the level of risk in freight transport. The company should find the practice to decrease the risk from their activity in distributions of goods. Pricing terms consist of examining the transport means and transportation infrastructure to the customers need. Hedging is a requirement in order counteracts the changes in fuel price in market. ISAR research shows that companies capable of systematically integrating risk management into planning and budgeting decisions, investment decisions, core operational business processes
and key supporting functions, achieve long-term sustainable advantage.

2 OBJECTIVE OF THE STUDY:

1. To Study the Risk managements efficiency, functional range in the aspect of Logistics Industry
2. To analyze the risk management process used in logistics
3. To study about the existing pricing agreements between the customer and the freight forwarding concern.
4. To identify the aspect of financial hedging with respect to aspect of fuel hedging.

3 METHODOLOGY

Risk Management Analysis in Air Freight forwarding with respect to Imports can be performed in the commonly used six techniques.

a. Avoidance
Avoidance is the best means of loss control. This is because, as the name implies, you're avoiding the risk completely. If your efforts at avoiding the loss have been successful, then there is a 0% probability that you'll suffer a loss (from that particular risk factor, anyway). This is why avoidance is generally the first of the risk control techniques that's considered. It's a means of completely eliminating a threat.

b. Loss Prevention
Loss prevention is a technique that limits, rather than eliminates, loss. Instead of avoiding a risk completely, this technique accepts a risk but attempts to minimize the loss as a result of it. For example, storing inventory in a warehouse means that it is susceptible to theft. However, since there really is no way to avoid it, a loss prevention program is put in place to minimize the loss. This program can include patrolling security guards, video cameras, and secured storage facilities.

c. Loss Reduction
Loss reduction is a technique that not only accepts risk, but accepts the fact that loss might occur as a result of the risk. This technique will seek to minimize the loss in the event of some type of threat.

d. Separation
Separation is a risk control technique that involves dispersing key assets. This ensures that if something catastrophic occurs at one location, the impact to the business is limited to the assets only at that location. On the other hand, if all assets were at that location, then the business would face a much more serious challenge.

e. Duplication
Duplication is a risk control technique that essentially involves the creation of a backup plan. This is often necessary with technology. A failure with an information systems server shouldnt bring the whole business to a halt. Instead, a backup or fail-over server should be readily available for access in the event that the primary server fails. Another example of duplication as a risk control technique is when a company makes use of a disaster recovery service.

f. Diversification
Diversification is a risk control technique that allocates business resources to create multiple lines of business that offer a variety of products and/or services in different industries. With diversification, a significant revenue loss from one line of business will not cause irreparable harm to the companys bottom line. Risk control is a key component in any sound company strategy. Its necessary to ensure long-term organization sustainability and profitability.

Pricing Agreements
The pricing agreements is referred to a small scope of study in which the various aspects of price negotiation aspects is being taken up such that the aspect how a normal customer is being treated along with a regular customer. The pricing agreement is based on the aspect of how an existing pricing strategy of the organization changes the flow in the transfer of goods is being done either in both exports and imports.

Financial Hedging (Fuel Hedging)
A hedge is an investment position intended to offset potential losses or gains that may be incurred by a companion investment. In simple language, a hedge is used to reduce any substantial losses
or gains suffered by an individual or an organization. A hedge can be constructed from many types of financial instruments, including stocks, exchange-traded funds, insurance, forward contracts, swaps, options, gambles, many types of over-the-counter and derivative products, and futures contracts.

Commonly used risk management tools in import operations in an import concern.

1. **Flexible Long term Contracts**: These are the contracts which are being taken up by the logistics concern in order to safeguard itself from the aspect of being exposed some minor or major risk conflicting measures such as escalation costs which vary from one time to another. The major risk in it is since agreements are pre-fixed (Handling agents) the clients are to be served only with those handling agents which may consist of much lower service cost. It can be overcome if the risk associated with this can be managed in such a way that the agreement by itself can have a clause by which it appreciates frequent revising of the terms of the contract which results in mutual benefit to both the parties. So many companies have consolidated equally interest vested clients and likely customers are to be included in the same group such that part of negotiations are done in an easy manner.

2. **Revenue Management**: The revenue management is a study in which the strength of the management is being assessed on how much level the organization efficiently allocates its resources and incomes from the virtue of its business. Proper management of resources is not bound within the scope of the freight forwarding employees; it is vested with the concern of the top management on how to utilize the resources in the development of the organization. The risk in revenue management is there exist no scope of risk as the employees are not in charge of their revenue management system. It can be managed by including employees of the firm in active decision making so as to help in easy assessment of their respective need also in a way through which they can improve the functioning of the business.

3. **Cyber Terrorism**: Cyber terrorism is the act of Internet terrorism in terrorist activities, including acts of deliberate, large-scale disruption of computer networks, especially of personal computers attached to the Internet, by the means of tools such as computer viruses. In logistics
organization the operations entirely related on the aspect of online In this case they are relatively open to any threat from the aspect of web concerns around the zone. But employees contradict that large quantum of information can leak only through the employees of the concern. The risk of leakage of confidential detail about the real time clients is to occur then it is by default that the competitor to our business is able to override the necessary detail that is in the manner to lose their customer. It can be avoided by doing end to end encryption in such manner that the information is safe and secure. Employees must be educated in such a manner that they are very well aware of the cause effects of any leakage of vital information to the third party has to be showcased to them such that all.

4. Demand Fluctuation:

Fluctuation is an common factor in determining the rate of risk in the organizations concern this aspect not only narrows down the various risk factors but also the core factors in the aspect of business which is easily exposed to risk these factors are generally in external manner and not in internal manner. Fluctuations in logistics occur on those aspects which are relatively in the range of lower range of activities; these activities include the aspect of freight management, like labor rate, conversion rate per labor. The risk here is there is no chance in the aspect to guess on when and where the fluctuation occurs (In import process) it may occur in the first part (Pre) or the second part (Post). The fluctuation may not be guessed in the process of operations but it can be denoted that by having a same level of protocol or practices this may subject to draw up an procedure which frequently reduces the scope of business risk. The management must ensure that there are certain provisions to make sure that a proper design of functions can be framed such that a proper protocol exists to reduce the scope of the risk.

5. Macro-Economic factors:

Economic trend refers to the study pattern in which it generally recognizes the factors which are primarily in external nature. These trends do recognize the aspect of vast boundaries in the range of analyzing the scope of the various risk causing factors in the concern of the business. Economic or global fluctuations have never had a significant impact in the concern of the business environment, this factor lays out that the predominant external environment is less
threatening than the internal environment. The pattern of exports and imports in the concern of air freight forwarding is not restricted to an only one country or parts of the country in the aspect of trade, it is regarded as an activity which is carried out all over the world ignoring the aspects of boundaries and several other statutory facts. This type of aspect has to be handled in such a manner that it ensures the companies long term goals are also achieved in the process of enabling this managing technique. The organization has in fact has to employ a strategy or a failsafe reserves in order to maintain its flow in the market. The trend generally results in either increase or decrease of trade, this stage can be avoided by providing multiple opportunities or choices in the concern of trade in the normal scenario but in time of contingencies it would be generally recommended that the concern of proper mix of scarce resources is recommended to safeguard an issue of retaining the customers who are regular in nature.

**Pricing Agreement in Logistics Industry**

Prices are determined in the following ways:

1. It is fixed as per the volumetric weight of the cargo as opposite to the normal or density weightage.

\[
\text{Volumetric weight} = \frac{\text{Length} \times \text{Breath} \times \text{Height}}{6000}
\]

2. An Air weight slab exists in which the volumetric slab is being matched and then the freight forwarder fixes the cost for the transit. A draft of the slab is being drawn up.

<table>
<thead>
<tr>
<th>SLABS(Weight)</th>
<th>Max</th>
<th>0-100</th>
<th>100-300</th>
<th>300-500</th>
<th>500&amp;Above</th>
</tr>
</thead>
<tbody>
<tr>
<td>RATE</td>
<td>60</td>
<td>50</td>
<td>52</td>
<td>45</td>
<td>40</td>
</tr>
</tbody>
</table>

Fig.1. Proposed Buck-Boost converter

3. From this sample table we can come to a conclusion that there exists an inverse relationship with rate & weight of the cargo. Sometimes prices can be altered on several price factors based on the circumstances.

4. Yusen logistics has a practice of contracted price which is restricted to the customer who is regular or frequent in nature.
5. Agreement based on collect airway bill. Yusen logistics is deemed to be the middlemen in this scenario. Air freight forwarding in general is costlier when compared to ocean.

6. It is also to be noted that it has the lowest level of lead time and risk exposure.

**Fuel hedging**

Fuel hedging is used to reduce or eliminate a company’s exposure to fluctuating fuel costs. It is a contractual tool allowing a company to fix or cap a fuel price at a certain level and period of time. If the company is exposed to oil price fluctuation, fuel hedging is a tool that can help eliminate the risk of fuel budget getting out of control.

Here is a few examples of why to hedge:

- Fuel oil prices fluctuate - the oil market is extremely volatile
- Fuel oil expenses represent a large fraction of the operational costs
- Insurance against price fluctuations
- Pro-active strategy for budget protection

Globally work out a hedging strategy and evaluate which hedging tools could be of advantage to customize the tools to fit the specific need. Keeping fuel costs within a predictable range protects from unexpected changes in the price of fuel - changes that could otherwise seriously impact the budget and profit margin. Following a comprehensive analysis of the current situation, a fuel risk manager can help in preparing a plan outlining strategies for managing the fuel needs more effectively. In ensuring the fuel risk plan is tailored to suit the needs, a fuel risk manager should take into account the business circumstances – including the understanding and acceptance of risk, and desired timeframes for reaching the financial goals. These methods of pricing agreements and fuel hedging helps the logistics industry to control the risks.
4 CONCLUSION

The air freight forwarder and the shipper face the problem of volatile market conditions. Therefore, it is essential to use risk management tools to encounter the market changes. Regarding the first research question, we evaluated different risk management tools reasonable for air freight forwarders. For the further research, we limited the risk management tools to the flexible pricing and the fuel hedging. The case study helped to quantify the benefit of the risk management tools. All three variations are applicable to the air freight forwarder and shipper relationship. The variants have the potential to provide a financial benefit for the air freight forwarder, compared to the initial situation with long term contract with fixed prices. The general finding of the empirical results are that all risk management tools generate a revenue benefit from the air freight forwarders perspective. There are limitations in our hedging approach. First of all, we have only explored one derivative instrument the future. Other derivative instruments, such as options or forwards, could also offer a benefit, like, for instance, future contracts. Future research can explore how these instruments can be effectively used in this context. Another limitation is that we cannot compare the benefit of hedging crude oil with the fuel surcharges caused by the different units. So we can only demonstrate that hedging with future on crude oil are beneficial and can reduce the price risk.

References


The general findings of the article are that air freight forwarders can profit from applying an index price clause in long-term contracts and by using financial hedging to protect themselves against rising fuel costs.

Many people mistake the freight forwarding process with import and export consultations, distribution management, and straightforward shipping. It’s not completely clarified: what does a freight forwarding company do? The process involves aspects of import and export, distribution, and shipping, but it’s none of those things. A freight forwarding agency, also known as a NVOCC (non-vessel operating common carrier), handles the regulations, paperwork, and logistics of international trade. Anne K. Metcalf, a technological essay writer emphasizes. The agency specializes in shipping merchandise and arranging storage on behalf of its clients (the shippers). We’ll list some of the services provided, so you’ll better understand:

- Benefits of Freight Forwarding Contract
- Preferences of Freight Forwarding Contract
- A step towards new technologies of informational cooperation

Go to Forwarding Contract. Simplicity and Availability. You need to make a hard copy contract for just once. You only need to be connected to the Internet to make an order if you already concluded a contract. Online - service 24/7. Transparency and Informational Content. In order to fulfill freight forwarder obligation imposed by antiterrorist legislative regulations to verify cargo description, PJSC TransContainer has a right to conduct such verification. In this case we designed a mobile application for photographic evidence of loaded cargo; responsibility for corruption of cargo description is stipulated. An analysis of the global freight forwarding industry, including market sizing, forecasts, trends, trade flows and profiles of the key market players. Price: 995 pages: 210. Global Freight Forwarding 2010. How did the Global Freight Forwarding Industry perform in 2009? Freight forwarders providing financial, operational and strategic insight of the key players. 2. Global Freight Forwarding 2010. Company profiles The report contains profiles of all the leading global freight forwards and includes analysis of interim financials from 2010 as well as full year 2009 reports. Information on these companies includes: Background Financial data and analysis Operations and services Strategy. Companies covered include