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Foreign Exchange Risk Management Practices: A Study on Ludhiana Textile Exporters

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Abstract

With the globalization of Indian economy the trade and investments have increased with other countries. All such developments combine to give a boost to cross-currency cash flows. The corporate enterprises in India have come across currency risk exposure and need for application of innovative hedging techniques has arisen for protecting themselves against attendant risks. It is in this context that a review of the perceptions and concerns of the textile exporters in Ludhiana, in relation to derivatives and of their initiatives in tuning the organizational set up to acquire and adopt the requisite skills in risk management, assumes significance. In this study it is found that the textile exporters in Ludhiana are using hedging tools to overcome the risk of loss due to change in foreign exchange & they are satisfied with what they are practicing & prefer using the same in order to minimize their foreign exchange risk. But according to the opinion of majority of the exporters forecasting & risk estimation are the most important practices than hedging & factors like profitability, sales growth & leverage are more affecting the decisions to minimize foreign exchange risk. In order to manage risk exporters are more dependent on In-house expertise & taking less help from the consultancies which has increased their risk of loss.

***Key Words**:* Foreign exchange, risk management, hedging, forwards, futures, options, swaps.

1. INTRODUCTION

Due to globalization of Indian economy the trade and investments with rest of the world has increased and firms have come across with different kinds of risk exposures. Therefore it is essential for the firms to measure risk exposures for the purpose of risk management. Financial markets have played very crucial role by introducing hedging tools such as options, futures, forwards and swaps to manage foreign exchange risk by the corporate sector. The spurts in foreign investments in India have led to considerable increase in the quantum of inflows and outflows in different currencies. Business enterprises have had to face the challenges of the shift from low risk to high risk operations involving foreign exchange. There was increasing alertness of the need for introduction of financial derivatives to enable hedging against market risk. Earlier the Indian companies had been entering into forward contracts with banks, but many firms preferred to keep their risk exposures un-hedged as they found the forward contracts to be very costly. In the current influential phase of the development of the foreign exchange market, it will be meaningful that initiatives should be taken by corporate enterprises in identifying and managing foreign exchange risk.

1.1. DEFINATION OF FOREIGN EXCHANGE RISK

Foreign exchange risk is the exposure of business to movements in foreign exchange rates. Foreign exchange risk arises, where currency mismatches in an institution's assets and liabilities and currency cash flow mismatches. This risk may arise from a variety of sources such as foreign currency retail cash transactions, retail accounts, investments in foreign currencies and investments in foreign companies. The amount at risk involved is a result of the change in the magnitude of potential exchange rate and the size and duration of the foreign currency exposure.

1.2. KINDS OF FOREIGN EXCHANGE EXPOSURE:

Risk management techniques differ with the type of exposure and term of exposure. There are two basic types of exposures which are explained as follows:

- Accounting exposure which is also called translation exposure, results when the financial statements of a subsidiary company is restated into its parent company's currency and its impact on the net income due to variation in the exchange rate between a foreign subsidiary and its parent.
- Economic exposure is the extent to which a firm's market value, in any particular currency, is sensitive to unexpected changes in foreign currency.

1.3. FRAMEWORK OF FOREIGN EXCHANGE RISK MANAGEMENT

A firm has to organize its resources once it recognizes its exposure. A firm in order to manage this risk effectively can use some or all of the following tools:

- Forecasts
- Risk Estimation
- Benchmarking
- Hedging
- Stop Loss
- Reporting and Review

1.3.1. HEDGING INSTRUMENTS:

A derivative is a financial contract whose value is derived from the value of some other financial asset, such as a stock price, a commodity price, an exchange rate, an interest rate, or even an index of prices. Following hedging tools are explained as below:

- **Forwards:** A forward is a made-to-measure agreement between two parties to buy or sell a specified amount of a currency at a specified rate on a particular date in the future. The depreciation of the receivable currency is hedged against by selling a currency forward. If the risk is that of a currency appreciation i.e. if the firm has to buy that currency in future say for import, it can hedge by buying the currency forward
- **Futures:** A futures contract is similar to the forward contract but is more liquid because it is traded in an organized exchange i.e. the futures market. Depreciation of a currency can be hedged by selling futures and appreciation can be hedged by buying futures.
- **Options:** A currency Option is a contract giving the right, not the obligation, to buy or sell a specific quantity of one foreign currency in exchange for another at a fixed price; called the Exercise Price or Strike Price. The fixed nature of the exercise price reduces the uncertainty of exchange rate changes and limits the losses of open currency positions. Call Options are used if the risk is an upward trend in price of the currency, while Put Options are used if the risk is a downward trend.
- **Swaps:** A swap is a foreign currency contract whereby the buyer and seller exchange equal initial principal amounts of two different currencies at the spot rate. The buyer and seller exchange fixed or floating rate interest payments in their respective swapped currencies over the term of the contract. At maturity, the principal amount is effectively re-swapped at a predetermined exchange rate so that the parties end up with their original currencies.

1.3.2. Factors affecting the decision to hedge foreign currency risk

Following section describes the factors that affect the decision to hedge and then the factors affecting the degree of hedging are considered.

- **Firm size:** Firm size acts as a proxy for the cost of hedging or economies of scale. Risk management involves fixed costs of setting up of computer systems and training/hiring of personnel in foreign exchange management. Moreover, large firms might be considered as more creditworthy counterparties for forward or swap transactions, thus further reducing their cost of hedging. The book value of assets is used as a measure of firm size.
- **Leverage**: According to the risk management literature, firms with high leverage have greater incentive to engage in hedging because doing so reduces the probability, and thus the expected cost of financial distress. Highly levered firms avoid foreign debt as a means to hedge and use derivatives.
- **Liquidity and profitability:** Firms with highly liquid assets or high profitability have less incentive to engage in hedging because they are exposed to a lower probability of financial distress. Liquidity is measured by the quick ratio, i.e. quick assets divided by current liabilities). Profitability is measured as EBIT divided by book assets.
- **Sales growth**: Sales growth is a factor determining decision to hedge as opportunities are more likely to be affected by the underinvestment problem. For these firms, hedging will reduce the probability of having to rely on external financing, which is costly for information asymmetry reasons, and thus enable them to enjoy uninterrupted high growth. The measure of sales growth is obtained using the 3-year geometric average of yearly sales growth rates.

2.Review of Literature

Phillips (1995) in his study **"Derivative practices & instruments survey"** focused on derivative securities and derivative contracts & found that organisations of all sizes faced financial risk exposures, indicating a valuable opportunity for using risk management tools. The treasury professionals exhibited selectivity in their use of derivatives for risk management.

Howton and Perfect (1998) in their study **"Currency and interest-rate derivatives use in US firms"** examines the pattern of use of derivatives by a large number of U.S. firms and indicated that 60% of firms used some type of derivatives contract and only 36% of the randomly selected firms used derivatives. In both samples, over 90% of the interest rate contracts were swaps, while futures and forward contracts comprised over 80% of currency contracts.

Spremann & Gantenbein (2002) in their study **"Currency derivatives"** examined that German companies are traditionally export-oriented; therefore they use mostly currency inflows protective policies. The firms using hedging experience an increase in market value over those companies that do not hedge at all or choose to stop using hedging policy. The market of derivatives is nowadays has a higher degree of regulation through internal and external control in the form of government and non-government regulation.

Financial Supervision Commission (2006) in its article "**Foreign Exchange Risk Management"** propounded that to minimise the possibility of financial loss, it is therefore essential that banks identify, measure and manage their foreign exchange risk effectively. It is important that these exposures are identified and, where necessary, hedged, on a timely basis. Banks are exposed to a number of different risks in the conduct of foreign exchange and general business.

Dohrin (2008) in his study **"Hedging & invoicing strategies to reduce exchange rate exposure"** has discussed exchange rate exposure in terms of transaction risk, translation risk and broader economic risk. The paper argues that domestic-currency invoicing and hedging with exchange rate derivatives allow a fairly straightforward management of transaction and translation risk and discusses under which circumstances their use is optimal.

Berk, Peterlin & Mitja Co. (2009) in their study **"Corporate Risk Management in Slovenian Firms"** found that even Slovenian blue-chip firms still have room to improve as they have only recently started to use derivatives. The article reviews some of the most interesting characteristics and practices of modern Slovenian financial risk management departments and provides a practically oriented case-study which describes the important steps a risk manager must take to hedge commodity price exposure.

Mbabazize, Daniel & Ekise (2014) in their study "The Role Of Foreign Exchange Risk Management On Performance Management Of Exporting Firms In Developing Countries: A Case Study Of Uganda's Exporting Firms" examined that there is moderate applicability level of FERM, low level of financial performance and a significant positive relation between FERM and performance of exporting firms. It is recommended that exporting firms should constantly assess their exposure to foreign exchange risk, which can guide them towards a suitable currency risk management.

3.Need, Objectives & Research Methodology

3.1. Need for Study

India being a fast developing economy has globalised itself by entering into foreign market and by allowing the foreign investments in India. All such developments combine to give a boost to cross-currency cash flows. The corporate enterprises in India are increasingly alive to the need for organised fund management and for the application of innovative hedging techniques for protecting themselves against attendant risks. There is no organised information available on how the corporate enterprises in India are facing this challenge. It is in this context that a review of the perceptions and concerns of the textile exporters in Ludhiana, in relation to derivatives and of their initiatives in tuning the organisational set up to acquire and adopt the requisite skills in risk management, assumes significance.

3.2. Objectives of the study

- To ascertain the Foreign Exchange Risk Management practices, and product usage, of Indian non-financial corporate enterprises.
- To understand the level of awareness of hedging tools and their uses, among the firms.
- To know the attitudes, perceptions and concerns of Indian firms towards foreign exchange risk management practices.
- To study the factors affecting foreign exchange risk management practices.

3.3. Research Methodology

The research design of the project is **descriptive** as it describes data and viewpoints of textile manufacturers & exporters in Ludhiana about foreign exchange risk management practices. The present study incorporates the collection of both primary and secondary data for an in depth investigation. The statistical tools used for analysis are ranking, likert scale, checklist questions and multiple choice questions. Since the study is restricted to Ludhiana the universe for the study consists of all the **manufacturers & exporters of textile products in Ludhiana.** The sampling unit for this research is a **single individual or firm in Ludhiana who manufactures & export textile products.** The selection of the respondents was done on the basis of **convenience sampling technique** and **snowball** technique based on the **non probability** method of sampling. The number of respondents included in the study was **100** for convenience in evaluating and analyzing the data and because of time constraint.

4.Analysis and Interpretation

4.1. No. of manufacturers & exporters of textile products in Ludhiana

Table 4.1:No. of textile products manufacturers & exporters in Ludhiana

Products →	Yarn	Fabric	Garment
No. of responses	38	34	50
No. of respondents	100	100	100
Percentage	38%	34%	50%

Interpretation: From above table we can interpret that the garment manufacturers & exporters are more than the yarn & fabric manufacturers. This shows there is increasing demand for garments which attracted more players in the market where as fabric and yarn manufacturers are less.

4.2. Annual turnover of the manufacturers& exporters in the year

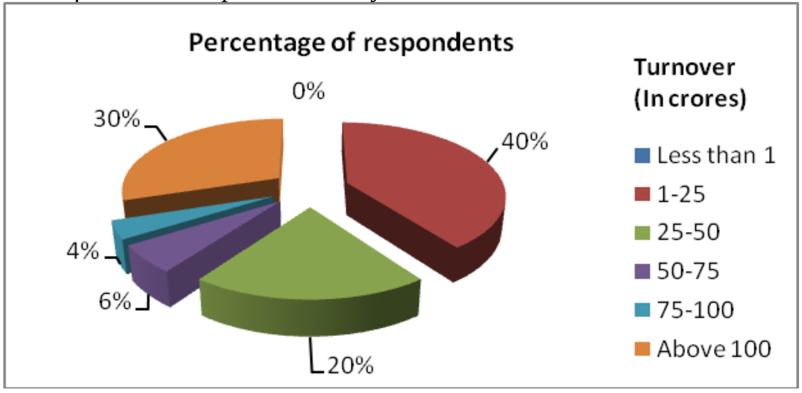


Fig 4.1- Annual turnover of the manufacturers& exporters in the year

Interpretation: It can be inferred that majority number of exporters have their turnover between 1-25crores & there are 30% of big exporters having turnover above 100crores.

4.3. Proportion of exports out of total turnover

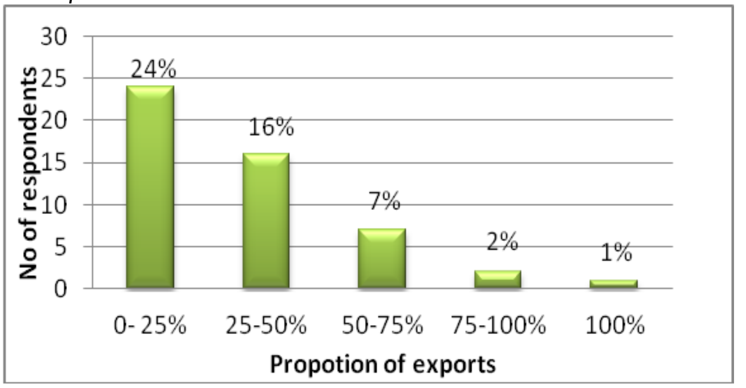


Fig 4.2- Proportion of exports out of total turnover

Interpretation: Only few respondents are exporting 100% of their production.

4.4. Respondents incurred loss due to change in the foreign exchange rate

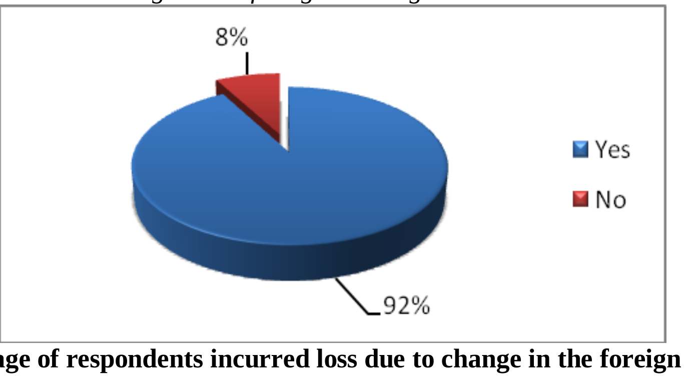


Fig 4.3-Percentage of respondents incurred loss due to change in the foreign exchange rate

Interpretation: It can be concluded that majority number of exporters have incurred a losses due to change in the foreign exchange rate.

4.5. Percentage of exporters aware about hedging tools

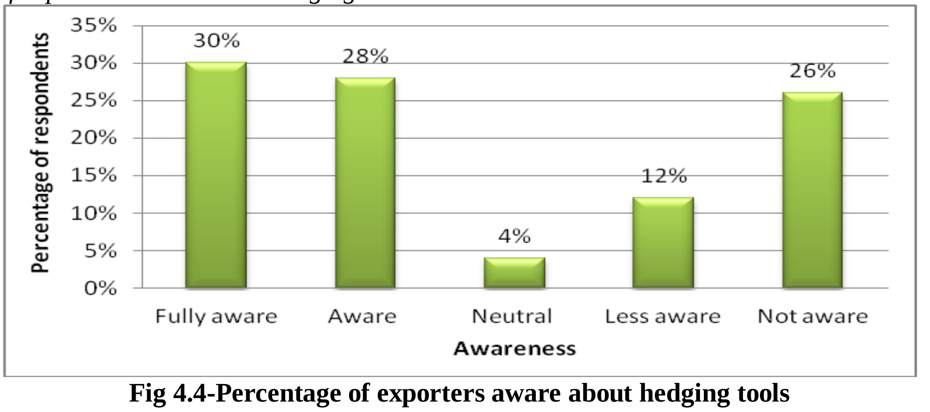


Fig 4.4-Percentage of exporters aware about hedging tools

Interpretation: It can be concluded from the above data that majority no. of respondents are aware about hedging tools that are used to manage foreign exchange risk due to change in the foreign exchange rate.

4.6. Hedging tools used by the exporters

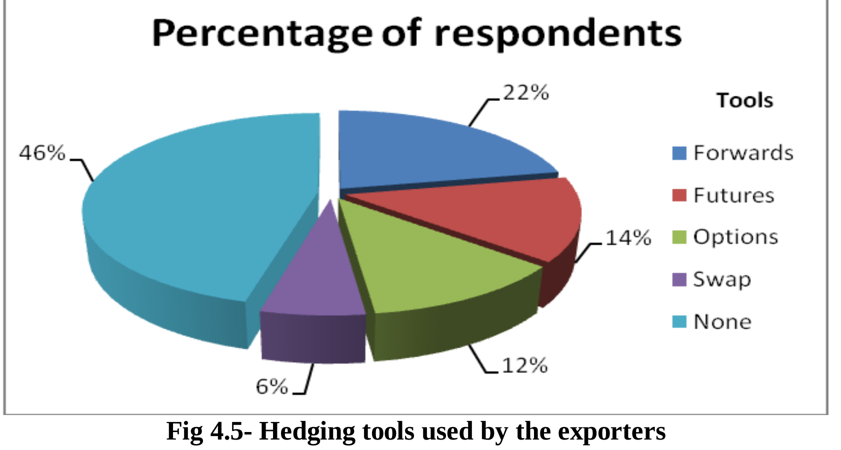


Fig 4.5- Hedging tools used by the exporters

Interpretation: It can be inferred that majority no of respondents are using hedging tools.

4.7. Comparison of awareness & usage of hedging tools by Ludhiana textile exporters

Table 4.2: Comparison of awareness & usage of hedging tools by Ludhiana textile exporters

Awareness \ Usage	No of respondents using hedging tools	No of respondents not using hedging tools	Total
Fully aware	28	2	30
Aware	22	6	28
Neutral	4	0	4
Less aware	0	12	12
Not aware	0	26	26
Total	54	46	100

Interpretation: It can be inferred from the above data that majority no of respondents are using hedging tools in managing their foreign exchange risk.

4.8. Degree of management of foreign exchange risk

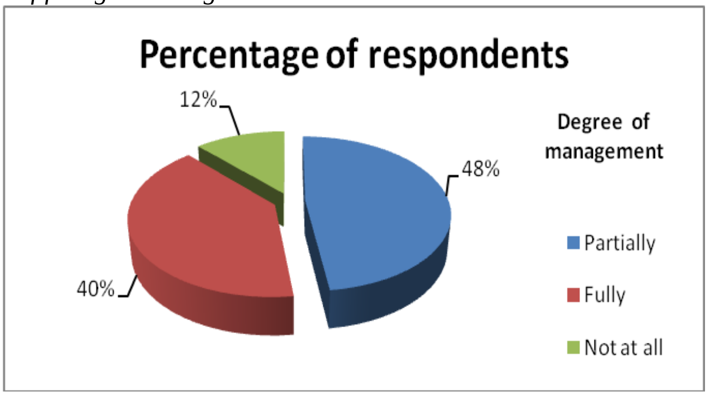


Fig 4.6-Degree of management of foreign exchange risk

Interpretation: It can be inferred that from the above data that majority no exporters try to minimize their foreign exchange risk either partially or fully.

4.9. Rating of satisfaction level of the exporters from their foreign exchange management practices

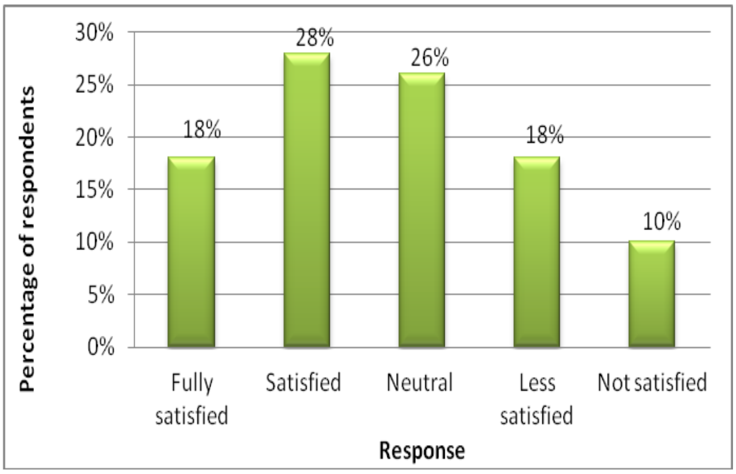


Fig 4.7-Rating of satisfaction level of the exporters from their foreign exchange management practices

Interpretation: It can be inferred that majority no of respondents are satisfied with the practices that they are using.

4.10. Comparison of satisfaction & usage of hedging tools by Ludhiana textile exporters

Table 4.3: Comparison of satisfaction & usage of hedging tools by Ludhiana textile exporters

Satisfaction \ Usage	No of respondents using hedging tools	No of respondents not using hedging tools	Total
Fully satisfied	16	2	18
Satisfied	18	10	28
Neutral	6	12	18
Less satisfied	10	16	26
Not satisfied	4	6	10
Total	54	46	100

Interpretation: It can be inferred from the above data that majority no of respondents are satisfied by using hedging tools in managing their foreign exchange risk.

4.11. Percentage of respondents who will apply same foreign exchange risk management technique in the future

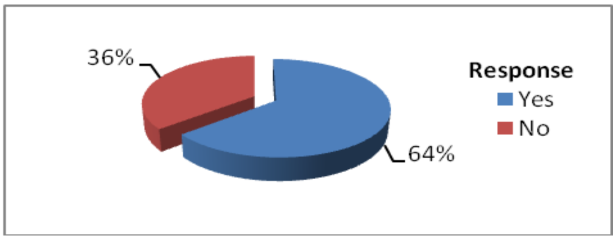


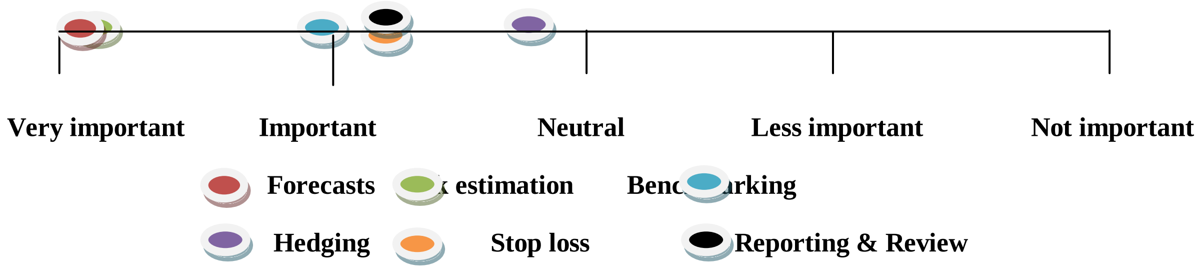
Fig 4.8-Percentage of respondents who will apply same foreign exchange risk management technique in the future

Interpretation: It can be inferred that majority respondents prefer using the same techniques they are applying at present in order to minimize their foreign exchange risk.

4.12. Consideration of various practices while managing foreign exchange risk

Table 4.4:Combined result of various practices to be followed while managing foreign exchange risk

Practices	Very important (+2)	Important (+1)	Neutral (0)	Least important (-1)	Not important (-2)	Total score	Mean score
Forecasts	82*(+2)	18*(+1)	0*(0)	0*(-1)	0*(-2)	182	1.82
Risk Estimation	80*(+2)	20*(+1)	0*(0)	0*(-1)	0*(-2)	180	1.80
Benchmarking	48*(+2)	22*(+1)	22*(0)	6*(-1)	2*(-2)	108	1.08
Hedging	30*(+2)	12*(+1)	24*(0)	26*(-1)	8*(-2)	30	0.30
Stop loss	22*(+2)	42*(+1)	26*(0)	6*(-1)	4*(-2)	72	0.72
Reporting & Review	32*(+2)	28*(+1)	26*(0)	8*(-1)	6*(-2)	72	0.72



Interpretation: It can be analysed from the above data that while managing foreign exchange risk forecasting, risk estimation are the most important practices that needs to be considered where hedging is least considered.

4.13. Factors affecting the decision to minimise the foreign currency risk

Table 4.5: Factors affecting the decision to minimise the foreign currency risk.

Factors	Mean score	Ranks
Firm size	3.84	5
Leverage	3.32	3
Liquidity	3.48	4
Profitability	1.88	1
Sales growth	2.48	2

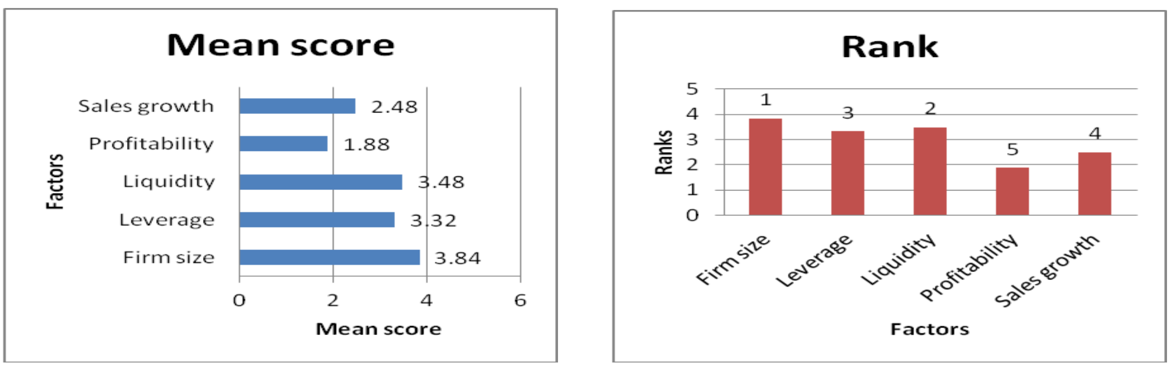


Fig 4.9-Factors affecting the decision to minimise the foreign currency risk.

Interpretation: It can be inferred from the above data that factors like profitability, sales growth & leverage are more affecting the decisions to minimize foreign exchange risk.

4.14. Expert advice followed by exporters to minimise foreign exchange rate risk

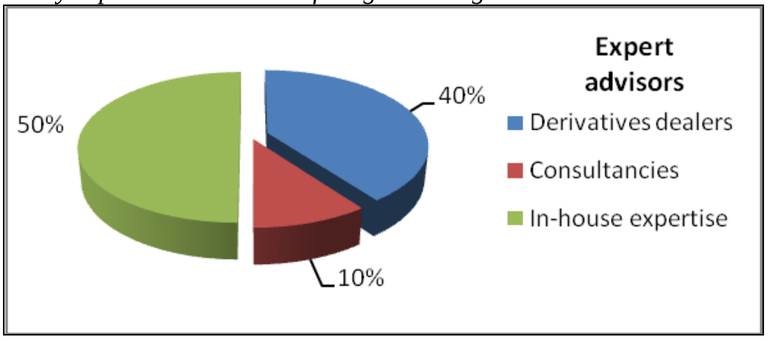


Fig 4.10-Expert advice followed by exporters to minimise foreign exchange rate risk

Interpretation: It can be inferred that majority no of respondents are using In-house expertise in order to minimize their foreign exchange risk & very less respondents are taking help from the consultancies.

Conclusion

The increasing demand for garments in export market has attracted many players in the market & many exporters have incurred losses due to change in the foreign exchange rate. To overcome the risk of loss due to change in foreign exchange rate the exporters in order to manage the risk either partially or fully, are using hedging tools but other practices are also like L/C, Currency trading, Bullion trading, Derivatives, Advance payment, Escalation clause, Benchmarking & Insurance. Majority exporters are satisfied with what they are practicing & prefer using the same in order to minimize their foreign exchange risk. But according to the opinion of majority of the exporters forecasting & risk estimation are the most important practices than hedging & factors like profitability, sales growth & leverage are more affecting the decisions to minimize foreign exchange risk. In order to manage risk exporters are more dependent on In-house expertise & taking less help from the consultancies which has increased their risk of loss.

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Annexure

Schedule

Q1. Which product are you exporting?

Yarn ☐

Fabric ☐

Garment ☐

Q2. What is the turnover of your firm?

Less than 1crore ☐

1crore – 25crore ☐

25crore – 50crore ☐

50crore – 75crore ☐

75crore – 100crore ☐

Above 100crore ☐

Q3. What is the percentage of export out of your total turnover?

☐ 0%-25% ☐ 25%-50% ☐ 50%-75% ☐ 75%-100% ☐ 100%

Q4. Have you ever incurred loss due to change in foreign exchange rate?

☐ Yes ☐ No

Q5. Are you aware about the hedging tools used to manage foreign exchange risk?

Fully aware	Aware	Neutral	Less aware	Not aware

Q6. Which hedging tool you have applied to manage foreign exchange risk?

☐ Forwards ☐ Futures ☐ Options ☐ Swap ☐ None

(If no, refer Q7.)

Q7. What other practices you follow to manage foreign exchange risk?

………

Q8. How much do you manage your foreign exchange risk?

Partially ☐

Fully ☐

Not at all ☐

Q9. Rate your satisfaction from the techniques you are applying to manage foreign exchange risk

Fully satisfied	Satisfied	Neutral	Less satisfied	Not satisfied

Q10. Will you apply same technique in future?

☐ Yes ☐ No

Q11. Rate the following practices which are to be considered while managing foreign exchange risk?

	Very Important	Important	Neutral	Least Important	Not important
a) Forecasts					
b) Risk Estimation					
c) Benchmarking					
d) Hedging					
e) Stop loss					
f) Reporting & Review					

Q12. Rank the factors affecting the decision to minimise foreign currency risk?

	1	2	3	4	5
a) Firm size					
b) Leverage					
c) Liquidity					
d) Profitability					
e) Sales growth					

Q13. Whose expert advice do you take in order to manage foreign exchange risk?

Derivatives dealers ☐

Consultancies ☐

In-house expertise ☐

Name : ______________________
Firm's Name: ______________________
Contact no. : ______________________

Thank you for your cooperation