Currency Risk Management Practices of Indian Export SMEs : A Descriptive Study

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Abstract

The existing literature is abundant with studies done to understand the risk management practices of multinationals and big business houses. The objectives with which these studies are conducted include understanding the practices, analyzing the hedging techniques adopted, examining the attitude of the firms towards derivative usage, and so forth. Since there is a dearth of studies conducted on the Indian small and medium sector, this study attempted to describe the risk management practices of Indian small and medium enterprises. A descriptive approach was adopted for getting a deeper insight into the practices. The results indicated extensive usage of forward contracts, existence of risk management systems in some firms, and comparatively less awareness about derivatives among the firms. The study found that the attitude of the firms towards usage of derivatives and employing a formal risk management system to monitor exchange rates was neutral as they perceived that these were meant only for multinationals. The study recommended increasing the awareness of derivatives among the firms as the firms did not have the means to adopt alternate techniques like natural and operational hedges. It also insisted that the firms should monitor exchange rates on a regular basis in the forthcoming years as the economic policies are edging towards stabilizing the economy.

Keywords: **SMEs, risk management, exposure management, risk analysis, hedging, derivatives**

JEL Classification: G01, G320, G280, G110

Paper Submission Date : December 14, 2014 ; Paper sent back for Revision : February 20, 2015 ; Paper Acceptance Date : July 8 , 2015

With markets becoming more integrated with liberalization and globalization of policies and practices, it is imperative for firms to hedge risks that emanate from different sources. Of all, currency risks have been the most important area of concern for an Indian exporter. With a volatile currency in the background and a bundle of strategies to stabilize the economy, an appreciation of Indian currency is in the anvil. Though depreciation of a currency contributes negatively to the growth of an economy, an exporter stands to benefit out of it. This mismatch of interest between the exporters and the government makes it mandatory for the exporters to keep a vigil on the exchange rate movements and manage exposure accordingly.

Contradicting theories exist with respect to the relevance of risk management for a manager. The Modigliani - Miller proposition argues that it is wise of a manager to take care of the market risk and to ignore unsystematic risks as it is for the investors to decide. But subsequent studies propounded that risk management has become imperative for managers as it reduces taxes, financial distress, and facilitates optimal investments (Froot, Scharfstein, & Stein, 1993 ; Smith & Stulz, 1985). Exchange rate is also found to affect a firm's value in the long run, even though it may not affect it in the short term (Allayannis & Ofek, 2001). Though the quality of reporting practices of firms have improved in the area of risk management, the literature contradicts on supporting various theories of hedging as we see here. The main reason attributable to this phenomenon is the country-specific institutional factors apart from sample bias (Judge, 2006).

Several empirical studies have attempted to understand the risk-management practices of firms. Most of them relate to multinationals. Very few studies relate to the practices of small and medium enterprises (SMEs), and that

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too relating to SMEs of emerging economies. Many interesting questions remain unanswered like : How do firms manage the exposure arising out of foreign transactions ? Do they follow a structured program or system ? How strong are they in terms of knowledge in derivative instruments ? Who are the decision makers in terms of choice of instruments ? and so forth.

The purpose of the current study is to analyze the practices of Indian SMEs with respect to risk management. The Indian export sector is predominantly dominated by micro, small, and medium enterprises.

Review of Literature

The literature has a number of similar studies done in other countries, and all these are related mainly to multinationals. Very few studies are found relating to the practices of small and medium enterprises. In the Indian context too, studies conducted by Vij (2009) and Sivakumar and Sarkar (2008) pertain to Indian corporates, with the exception being the study conducted by Hariharan (2014). Thus, there is a dearth of studies conducted on the small and medium enterprises.

The analysis of studies done in countries other than India too shows very few studies done on SMEs. The results of these studies include practices, hedging behavior, and derivative usage of the respondent firms. Hakkarainen, Joseph, Kasanen, and Puttonen (1998), found from a study done on Finnish firms, that firms pursued hedging expecting trading profits and the strategy was accommodated in their foreign exchange policies too. Hrubošová, Kameníková, Strouhal, Bonaci, and Filip (2013) conducted a study that focused on the risk management practices of small and medium enterprises of Czech Republic. The study found that many companies faced foreign exchange risks because of financial crisis. The trend in the exchange rate provided a lot of opportunities for Czech firms to hedge risk using financial derivatives in order to protect their assets. Aabo, Høg, and Kuhn (2010) found a strong, negative relationship between import and usage of foreign currency derivatives. The study focused on import in medium-sized manufacturing firms in Denmark.

Glaum (2000) found in a study conducted among non-financial German firms that majority of the firms studied were concerned about transaction exposure. It was also observed that the firms adopted a selective hedging strategy based on forecasts. Bodnar, Consolandi, Gabbi, and Jaiswal -Dale (2013), while surveying the risk management practices of Italian non-financial firms, found that the small and medium sized firms used derivative contracts that were influenced by factors like firm size, geographical location, rating, and so forth. Brunzell, Hansson, and Liljeblom (2011) found that firms used derivatives more for profit than for hedging, thus confirming the practice of speculating using derivatives. Bartram, Brown, and Conrad (2011) found that the firm value and derivative usage were positively related. They also reported that derivative usage was associated with higher value, abnormal returns, and larger profits during the economic downturn in 2001-2002. The study used a large sample of non-financial firms from 47 countries. This study suggested the practice of the firms to hedge downside risk. This study contributed to the existing literature on SME practices.

Objectives and Significance of the Study

The study contributes to the existing literature in many ways. Foremost, it redresses the gap that exists in literature regarding the practices of Indian small and medium enterprises. The firms would be benefitted by understanding the peer-practices for managing risk. The study was conducted as an opinion poll survey during the year 2013-2014. The study is conducted to realize the following objectives :

(1) To assess whether the sample firms have a risk management system in place,

(2) To evaluate the risk management practices of the firms,

(3) To compare the practices of the firms and to suggest suitable remedial measures.

Table 1. Risk Management System in the Sample Firms

Risk management system	Number of firms	%
Yes	186	56
No	144	44
Total	330	100

Materials and Methods

Using the purposive judgment sampling technique, the samples were drawn from a population of over 5000 firms who are registered with multiple organizations that promote exports. Of these, the questionnaire was sent to select 2000 sample firms who were willing to participate in the survey. Of these, only 500 become eligible as they returned the questionnaire filled in before the target date. Of these 500 firms, only 330 questionnaires were found to be valid. Incomplete questionnaires were not included in the study. The questionnaire tested the following aspects :

(1) The presence of a risk management system in the firms,
(2) The practices of the firms with a system and without a system for comparison,
(3) Analysis of reasons for not maintaining a system,
(4) Hedging strategies of the firms,
(5) Derivative usage and awareness levels.

The definitions used in the study are based on the concepts defined by Adler and Dumas (1984).

Results and Discussion

Every exporting firm needs to monitor the exchange rate movements continuously as it impacts the profits, cash flows, and the future profitability position of the firms. Installing a risk management system is always optional to the firm, but a cost-benefit analysis done in this regard will certainly be moving towards benefits. So, it is important to check the presence of a risk management system.

An ideal risk management system has certain salient features. The firms were tested for agreement regarding the same. An analysis of the Table 1 reveals that majority (56%) of the respondents understood the importance of having a risk management system in place. Though all the firms responded to questions regarding practices, 56% agreed for the presence of a system. Hence, the practices of these firms tended to vary with that of others. Therefore, a comparison of the practices of the firms with a system with that of others becomes inevitable.

↳ **Risk Management Practices of Firms with a System :** The practices listed in the Table 2 are drawn from literature and consist of the general practices followed by the established firms in the international market. The column titled Rank 1 presents the agreement of the firms that have a system in place, and the column titled Rank 2 presents the ranking given by the firms without a risk-management system. As a common practice, the firms were found to depend on banks for forward rates. Similarly, the exchange rates and the respective changes in the exposure too were not monitored on a regular basis. Though they had a system, the firms did not maintain a policy document.

Although the firms felt that having a well-documented risk management policy is of paramount importance, they did not implement the same in their firms. The reasons attributed to this are plenty. The prominent and the common one is lack of flexibility in the operations, especially during a crisis, like a world-wide recession, and so forth, when decisions have to be taken instantaneously.

Table 2. Practices of Firms with a Risk Management System

S. no	Risk Management Practices	Rank 1	Rank 2
1	Use the exchange forecasts from external sources like banks and manage risks accordingly.	2	1
2	As a policy decision, using derivatives is avoided.	4	2
3	Periodic review and careful monitoring of the system is practiced strictly.	5	3
4	Clear definition of authority and appropriate delegation to the concerned people for timely decisions are considered important.	6	4
5	Timely audit and inspections are conducted by independent authorities.	1	5
6	Control points are set for managing the exposure effectively.	3	6
7	A very well documented risk management policy is in place.	9	7
8	An exclusive treasury department is given the responsibility to manage exposure.	10	8
9	A proper accounting and information system is in place for effective control of foreign exchange risk and related activities.	7	8
10	Treasury operations are carried out by the accounting or finance department.	8	10

Table 3. Reasons for not Having a Risk Management System

No	Reasons	Average Score	Rank
1	Risk management systems are meant only for multinationals.	4.25	1
2	Installing a risk management system is very expensive.	3.50	2
3	The necessity for a risk management system is not felt at present.	3.46	3
4	The company is very small in size.	3.33	4
5	Awareness of such risk management system is very less.	3.25	5
6	Managing risk without a system is possible.	3.17	6
7	Risk management systems do not contribute to the export performance of the firm.	3.08	7
8	Installation of a system could be considered in future.	3.08	7
9	Risk management systems are quite complex and confusing.	3.04	9
10	Negligible exposure levels do not require risk management systems.	2.71	10

Comparison of the Practices Across Firms : On seeing the ranking sets, it is difficult to conclude and comment on the differences. Hence, a rank correlation test was conducted to prove the existence of significant differences across firms.

➔ **H_0 :** There is no significant difference among the risk management practices of the firms.
➔ **H_a :** There is a significant difference among the risk management practices of the firms.

The rankings are tested for differences using Spearman's Rank Correlation. The value is found out to be 0.644, and the two-tailed significance test shows a value of 0.61, that made me reject the alternate hypothesis and conclude that there are no differences among the firms regarding their practices. It also helps in concluding that the practices of the firms do not depend on the existence of an established system in the premises. A review of the statements presented in the Table 3 helps us to evaluate the importance given by the firms to each of the strategies.

As discussed earlier, there are certain firms without a risk-management system in place. As a first step, the firms were asked about the reasons for not maintaining a system for managing currency risks. From the agreement to the given statements, it can be inferred that the firms did not have any specific reason for not having a system in place; the major reason behind the same being that the firms believed that it (a system for managing currency risks)

Table 4. Exposures Confronting the Firms

Exposure types	Number of Firms	%
Transaction Alone	264	80
Translation Alone	13	4
Economic Alone	33	10
Transaction and Translation	10	3
Translation and Economic	3	1
All three types	7	2
Total	330	100

was meant only for multinationals. They also felt that they did not require it at present. Agreement to risk management system not contributing to the export performance was ranked at number seven, reflecting their thoughts on the importance of having a system in place.

↳ **Major Exposures and Management :** The Table 4 lists the major exposures confronting the exporting firms. Majority of the firms (80%) were confronted with transaction exposure. Even though other types of exposures exist, only a limited number of firms (4%) faced translation exposure and economic exposures alone. The analysis presented here suggests the perception of the respondent firms regarding the exposures. As anticipated, the respondent firms perceived only the transaction exposures, and only 10% of the sample firms perceived economic exposure. This was due to lack of awareness among the firms as to the meaning and impact of economic exposure.

The results of this study regarding exposures confirms the results obtained by earlier studies - Pringle and Connolly (1993), Rawls and Smithson (1993), Collier and Davis (1985), Batten, Mellor, and Wan (1993). A deeper analysis showed that the main reason for this type of exposure was due to the fact that most of these firms had their Accounts Receivables denominated in foreign currencies, especially in the U.S. dollar. A small number of firms faced translation exposure due to the fact that there is no necessity of converting the transactions for the sake of reporting or consolidating. Hence, the knowledge of the firms with regard to economic exposure and its relevance was found to be quite less.

↳ **Focus of Exposure Management :** The firms were tested to find out the main objective behind managing exposure. The Table 5 presents the areas that required focus in general. It is a well-known fact that these objectives

Table 5. Focus of Exposure Management

No	Objectives	%	Ranking	Exposure
1	Sales	3.93	1	Transaction
2	Profit	3.67	2	Transaction
3	Change in the customer's preferences, style	3.58	3	Economic
4	High level of competition in the international markets	3.47	4	Economic
5	Decrease in assets	3.22	5	Translation
6	Decrease in surplus	3.22	5	Transaction
7	Increase in liability	3.16	7	Translation
8	Brand image, identity etc	3.15	8	Economic
9	Increase in interest obligations	3.09	9	Transaction
10	Future cash flows of the company	2.87	10	Economic

Table 6. Focus of Risk Management

No	Focus	Average Score	Ranking	Exposure
1	Sales	3.48	1	Transaction
2	Profit			Transaction
3	Decrease in surplus			Transaction
4	Increase in interest obligations			Transaction
5	Future cash flows of the company	3.27	2	Economic
6	High level of competition in the international markets			Economic
7	Change in the customer's preferences, style			Economic
8	Brand image, identity etc			Economic
9	Increase in liability			Translation
10	Decrease in assets	3.19	3	Translation

Table 7. Techniques to Assess Risk

Techniques	Number of firms	%
Estimation of Exposure and VaR	156	47
Scenario Analysis, Stress Analysis (with exposure estimation and VaR)	24	7
No Specific Method	150	46
Total	330	100

could be short-term, long-term, or both. Conceptually, managing risks to protect the profits is considered as a short-term objective, and managing risks for sustaining the competition in the market is regarded as a long-term objective.

The results show the firms' inclination to prioritize transaction exposure as the main focus of exposure management. This is understood from the Table 6 that the priority of the firms was to manage profits and sales. The focus of exposure management is short term oriented, but the focus has to be built to accommodate long-term objectives too.

↳ **Techniques Used to Assess Risk :** Exposure and risks are often used interchangeably. Conceptually, exposure is defined as the amount exposed to risk, and currency risk is the variability in the income and sales due to changes in the exchange rate. Having understood the exposure management practices, the techniques of risk assessment are studied next. There are a number of methods available to assess currency risk; the popular one being Value at Risk (VaR).

The Table 7 presents the areas that were given priority while assessing risk. The firms were tested for the techniques they employed to assess risk. Techniques like stress analysis and scenario analysis are also being widely practiced by multinational companies for assessing risks.

↳ **Hedging Practices :** The next perspective of the evaluation is from hedging aspects of risk management. The list given in the questionnaire included the hedging practices adopted by the Indian exporting firms in general. The practices tested are presented in the Table 8.

Buying a forward contract from a bank was the most popular practice among the firms as all the firms agreed to it. Earlier studies (Dash & Anand Kumar, 2013 ; Mathur, 1985 ; Sivakumar & Sarkar, 2008 ; Teoh & Er, 1988 ; Vij, 2009) also observed this finding. The least agreement was seen with the statement which tested their practice of using derivatives. However, all these firms agreed to have used forward contracts for managing risk, thus

Table 8. Hedging Practices Implemented by the Sample Firms

Number	Particulars	Score
1	Buying a forward contract from a bank is the most repeated activity.	5
2	The upper levels of the management take the hedging decisions after several rounds of meetings.	3.8
3	Decisions on derivatives are taken after a comparison between the rates given by a number of banks.	3.31
4	Hedging is done only when the exposure is large.	3.15
5	The product is priced suitably.	2.69
6	The centralized treasury department takes care of hedging decisions.	2.47
7	Hedging is done very rarely.	2.38
8	An exclusive department takes care of hedging decisions.	1.62
9	Hedging using derivatives is not practiced.	1.44

Table 9. Hedging Techniques Adopted

Techniques	Yes	No	Total
Money market hedges	149	181	330
Currency Options	196	134	330
Currency Swaps	168	162	330
Currency Futures	180	150	330
Matching	243	87	330
Leading and lagging	129	201	330
Netting	101	229	330
Pricing Policies	155	175	330

confirming the fact that the firms did not consider forward contracts as derivatives. An in-depth analysis revealed that about 180 (54.5%) firms took decisions based on the quotes given by their main bank, but the others took decisions based on the quotes given by a number of banks. The practice of pricing the product suitably to hedge risk is another popular practice that was found to be in use among the firms. The firms did not have a centralized treasury department, and this finding is in contrast with the findings obtained by Vij (2009).

The Table 9 discusses the internal and external hedges employed by the firms to hedge the currency risks. Currency options are the most popular derivatives that the firms were aware of in this study. This coincides with the findings of an earlier study conducted by Sivakumar and Sarkar (2008) in the Indian context. Of all the internal techniques, the firms were most aware of matching. This too is contradictory to the earlier studies, as netting came out to be the most practiced technique among U.S., Australian, and other multinational firms. Conceptually, the margin between netting and matching is very less, making them both to be used synonymously in most of the studies.

↳ **Hedging Rationale :** The firms were asked to circle the rationale behind hedging, and their views were measured using a Likert scale. The results are presented in the Table 10.

The previous studies conducted to understand the hedging rationale of the firms revealed many reasons. They included (a) a reduced corporate tax liability (Graham & Smith, 1999 ; Smith & Stulz, 1985); (b) reduced costs of financial distress (Stulz, 1984); (c) reduced risk for the firms' managers (Breeden & Viswanathan, 1998 ; DeMarzo & Duffie, 1995 ; Smith & Stulz, 1985 ; Stulz, 1984 ; Tufano, 1998); (d) reduced cost of underinvestment due to a reduction in the agency conflict between bondholders and shareholders or to an increased facility for financing investment projects with internal funds that reduced recourse to costly external financing (Bessembinder, 1991;

Table 10. Hedging Rationale

No	Rationales for Hedging	Score
1	Reduce fluctuations in income or expenses in foreign currency	3.55
2	Reduce cost of financial distress	3.51
3	Ensure that tax-reducing measures are used	3.40
4	Use enterprise's foreign exchange expertise	3.36
5	Reduce cost of capital	3.27
6	Reduce risk for owners	3.18
7	Follow dominant practice in THE business sector	3.15
8	Exploit interest rate differentials between different currencies	3.02

Table 11. Reasons for not Using Derivatives

No	Reasons	Average
1	Costs of establishing and maintaining a derivatives program exceed the expected benefits.	3.55
2	Difficulty in pricing and valuing derivatives.	3.45
3	Disclosure norms are stringent and cumbersome.	3.30
4	Accounting treatments difficult.	3.25
5	Not applicable as we use derivatives.	3.18
6	Insufficient exposure to financial or commodity prices.	2.58
7	Exposures are more effectively managed by other means.	2.00

Froot et al., 1993 ; Mayers & Smith, 1987; Mello, Parsons, & Triantis, 1995) . The main objective of hedging among the sample firms studied was to protect their cash flows as their receivables were in foreign currency (3.55), which in contrast to the findings of the earlier studies.

The firms had various reasons for not using derivatives to hedge risks as indicated in the Table 11. Out of all, cost of establishing a derivative program and the expected benefits was ranked the highest (3.55). The firms agreed that there were no other better means of hedging risk than derivatives as this statement scored an average score of 2.00. This is in contradiction to many other theories. According to Bhamornsiri and Schroeder (2004), the reasons for using derivatives included the underlying hedged items, the risk-management policy, and so forth. Many companies may not disclose fair values or changes in fair values. This also included derivative usage and effectiveness. Since firms may use derivatives for purposes other than hedging (such as earnings management) (Barton 2001), the disclosure requirements too may have an impact on the transparency with which firms report their use of derivatives (Hunton, Libby, & Mazza, 2006). The continued lack of uniformity in the quantitative disclosures on derivatives use among companies could alter the desired transparency of financial reports and would require some effort in assuring consistency in the data used to study derivatives use (Nguyen, Mensah, & Fan, 2007).

Derivatives are often understood as “double-edged swords”. This is due to the fact that they have both merits and demerits. In other words, the success depends on the skill with which they are handled. They are financial contracts that could be structured based on the requirements of the parties concerned. So the firms' returns from derivatives depend on the extent of skilled usage.

Summary of Findings

Though many alternatives are available, firms prefer forward contracts. Since small firms do not have the scale

economies sufficient enough to opt for operational hedges, they need to rely on financial hedges. Earlier studies done in this regard have proven significant reduction in exposure (Allayannis & Ofek, 2001) and value maximization through financial hedges. Though the concept of value maximization cannot be applied on SMEs as such, it can be analyzed whether the introduction of financial hedges helps in reducing exposure and enhances export performance.

Another interesting result points out that the practices of the firms with a system in place did not vary significantly with that of the others. Majority of the firms believed that derivatives and risk management are meant for multinationals. However, in reality, these firms were also exposed to similar risks, though the quantity may be less. Firms are also seen to take up risk management and hedging in a short term perspective. Previous studies indicate that market imperfections and restrictions on free trade make risk management a concern for corporate management. Since SMEs also operate in the same global markets, it becomes imperative for the firms to take risk management seriously. Currency swaps have proven to be the most cost-effective tool in many studies (Géczy, Minton, & Schrand, 1997). However, the present study revealed that the firms studied here did not possess an adequate knowledge of derivatives like swaps.

Economic and Business Implications

This study implies the necessity for increasing the knowledge levels of the Indian export SMEs in risk management and tools to manage risk. A volatile currency is unavoidable in an emerging economy, and given this background, Indian export SMEs are advised to keep themselves updated on latest innovations in the field of finance, in particular, risk management. The management development programs conducted by various institutions should plan them in such a way that it caters to the needs of the sample SME firms as well. Intensive programs that explain the intricacies of exotic derivatives should be the focus of such programs.

Conclusion, Limitations of the Study, and Scope for Further Research

This study investigates the risk-management practices of Indian SMEs that are into exporting. Future studies should focus on analyzing the impact of the practices on the export performance of the firms. The study found that the practices did not vary significantly based on the presence of a risk management system. It was also found that the firms relied on banks and other financial institutions on the choice of derivatives. The knowledge and awareness of the firms regarding the alternative derivative contracts was found to be scanty. The firms also believed that derivatives and risk management systems were more important to multinationals as they have the advantage of scale.

The limitation of the study is that it analyzes the opinions expressed by the representatives of the studied firms. Hence, the findings of the study cannot be generalized. Future studies conducted in order to find out whether the risk management practices impact the export performance would yield valuable results.

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