The Role of Foreign Exchange Risk Management in Malaysia

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ABSTRACT

During the financial crisis period of September 1997 to August 1998, many Malaysian multinationals suffered badly as a result of currency fluctuations. Thus foreign exchange risk management has become an important theme in the emerging markets such as those in Malaysia. This paper examines the extent of foreign exchange risk management among Malaysian multinationals and investigates the purpose of managing those risks, the types of risks managed and the extent of management control and documentation of the foreign exchange risk management. This is complimented by a mail survey, which was sent to corporate treasurers or finance directors of 90 Malaysian multinationals listed under the Bursa Malaysia Main Board (previously known as Kuala Lumpur Stock Exchange). The study indicates that multinationals are involved in foreign exchange risk management primarily because they sought to minimise operational overall cash flows, which are affected by currency volatility. Another finding is that the majority of multinationals centralised their risk management activities and at the same time imposed greater control by frequent reporting on derivative activities. It is likely that huge financial losses related to derivative trading in the past led to top management being extra cautious.

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Interesting findings also emerged from the examination of the role of foreign exchange risk management. It appears that economic events related to Malaysian financial markets did influence the involvement in foreign exchange risk management.

INTRODUCTION

Background

In the early 1980s, an increasing number of multinationals from developing countries in Asia, such as Taiwan, Singapore, Malaysia, Indonesia and Thailand, became involved in international businesses. These multinationals are sometimes referred to as the 'new multinationals' (Lall, 1983). Today some of them are among the world's top 500 companies (Timbrell and Tweedie, 1998). Some Malaysian multinationals, for example Sime Darby, Telekom, Berjaya and Petronas, are among Asia's top 100 companies (ELC International, 1997). The New Economic Policy (NEP), introduced in 1970, focused specifically on helping Malay entrepreneurs. Later on the privatisation and corporatisation policy of the 1980s led to the formation of a growing number of 'big' Malaysian companies, with Malays or government acting as the major shareholders. Many of these companies became involved in international business by setting up subsidiaries overseas or by participating in joint ventures with other companies abroad. For instance, Petronas was incorporated in 1974 and started to venture overseas through a wholly-owned subsidiary in 1990. The Petronas group of companies consists of forty-seven wholly-owned subsidiaries, twenty partly owned subsidiaries and twenty-seven other companies with total assets of more than RM68 billion (*Petronas Annual Report,* 1995). Recently, Petronas was ranked second highest in terms of return on revenues by the *Fortune* Global 500 Companies of 1998 (*Fortune*, 1998). Renong, another Malaysian multinational, started in 1982 as a public-listed company. Today the group consists of thirteen public-listed companies and over one hundred established operations currently active in New Zealand, the Philippines, Vietnam, South Africa and Indonesia. These companies are just a few examples of multinationals that, as predicted by Caves (1996), have proven their ability to penetrate the overseas market, especially in other developing countries.

Prior to 1997, the management of foreign exchange risk was not given much attention by Malaysian multinationals, who were quite complacent and passive in managing foreign exchange risk (*New Straits Times,* 30 May 1998). However, government initiatives leading to the launch of the Kuala Lumpur Commodity Exchange, the Kuala Lumpur Options and Financial Futures Exchange and the Malaysian Monetary Exchange marked the beginning of the derivative market in Malaysia. With the Asian financial crisis, the subject of foreign exchange risk management started to play a bigger role in the Malaysian corporate scene. At the same time, a substantial body of literature (e.g. Dhanani, 2000; Baril and Benke, 1996; Smithson et al., 1995; and Smith and Stulz, 1985) suggested that foreign exchange management can increase a firm's value and thus decrease the chances of financial distress. Particularly during the Asian crisis, many Malaysian observers argued that multinationals would have suffered less if they were actively engaged in foreign exchange management (*New Straits Times,* 30 May 1998; *Business Times,* 29 July 1998).

The crisis started in Thailand and then spread over to South Korea, Indonesia and Malaysia. It resulted in the weakening of the currencies of this region. This caused many multinationals to suffer foreign currency liquidity problems as they were required to make increased payments for overseas loans. According to a 1998 International Monetary Fund (IMF) Report, among other things, the poor assessment and management of financial risk resulted in heavy losses to these multinationals.

Motivation of Study

To date, most of the literature on foreign exchange risk management has focused on developed countries (Benson and Oliver, 2004; Makar and Huffman, 1997; Malindretos and Tsanacas, 1995; Batten et al., 1993; Belk and Glaum, 1990). For example, the recent literature on foreign exchange risk management has focused on two issues in developed countries: a) the factors that cause firms to become involved in risk management (e.g. Benson and Oliver, 2004; Hardwick and Adams, 1998; Berkman and Bradbury, 1996; Nance et al., 1993; Batten et al., 1993; Collier et al., 1990); and b) the way risk management is conducted (e.g. Bodnar et al., 1998; Joseph and Hewins, 1997; Malindretos and Tsanacas, 1995; Belk and Glaum, 1990). Very little attention has been directed to this subject in developing countries, including Malaysia. Studies of the management of foreign exchange risk by multinationals from developing countries, meanwhile, have also been scarce. The current paper aims to fill this research gap by analysing the management of risks in Malaysian multinationals, with a special focus on exchange rate risks.

This paper contributes to the understanding of the Malaysian foreign exchange risk management practices in three time periods, namely, before the Asian crisis, during the crisis and after the crisis. Particularly, to what extent the involvement is and what conclusions can be drawn with regard to those three events? Based on this overarching goal, the objectives of this paper can be described as follows:

- To critically examine the extent of foreign exchange risk management involvement among Malaysian multinationals;
- To demonstrate the specific issues of risk management processes such as centralisation and the frequent reporting of risk management activities.

These general objectives were augmented by specific research questions, which include:

- What was the extent of involvement in foreign exchange risk management among the Malaysian multinationals in the three time periods under study?
- What conclusions can be drawn with regard to the interaction of economic events and risk management activities?

The structure of this paper is as follows. In the following section, the literature reviews on the foreign exchange risk management is described in detail. The third section describes the methodology used for this study. The empirical result of the study is then presented in section four, whilst conclusions are drawn in section five.

LITERATURE REVIEW

The term foreign exchange risk management is commonly used among multinationals. Nonetheless, there is no uniformly accepted definition of exchange rate risk management. Several authors (e.g. Cook, 1993; Baldoni, 1998; Rahardjo and Dowling, 1998; Chiu and

Foerster, 1997; Ankrom, 1974) have provided definitions of foreign exchange risk management. Among the first authors who defined foreign exchange or currency risk was Ankrom (1974). He classified foreign exchange exposures into translation, transaction and economic exposures. Translation exposure is the accountant's record of profit and loss in translating balance sheet accounts into the home currency. Transaction exposure is the foreign exchange exposure associated with sales or transactions that have already been made. A multinational is exposed to transaction exposure if it sells products where payment is going to be made at some future date. Lastly, economic exposure is the combination of translation and transaction exposures. Ankrom (1974) argued that economic exposure is a comprehensive measure for the company's foreign exchange exposures. However, economic exposure is usually very complex as it involves not only known cash flows but also unknown future cash flows (Glaum, 1990; Belk and Glaum, 1990).

Authors such as Belk and Glaum (1990) investigated seventeen major UK industrial companies during the year 1988. A total of thirteen out of sixteen companies (81 per cent) considered managing translation exposure as important. Eleven of them (68.8 per cent) were prepared to manage the exposure actively. The management of transaction exposure was the centrepiece of their foreign exchange risk management. In fact, fourteen out of seventeen (82 per cent) companies managed these exposures. The degree of hedging transaction exposure varied among these companies. Six of the companies stated that they managed these exposures totally, while others stated that they did so only partially. The study also found some evidence that there was a correlation between multinationals' size and their propensity to take risks in foreign exchange markets. It seemed that larger multinationals were more likely to be involved in foreign exchange risk management. Due to the complexity of economic exposures and the diversity of the companies investigated, however, the results were very heterogeneous.

When examining the way multinationals managed foreign exchange risk, Belk and Glaum (1990) found that the majority of them (94 per cent) centralised these activities to some degree at the parent company level. Thus, nine of these multinationals (53 per cent) stated that they had a high degree of centralisation of these activities. Dealing with risk-averse versus risk-taking behaviour, Belk and

Glaum (1990) found that the majority of UK multinationals were totally risk averse. There were a few companies who aimed to gain on their foreign exchange risk management and hedged partially. This was in line with the findings of Collier et al. (1990) who had suggested that some UK multinationals were risk averse in managing transaction exposures with the objective of avoiding significant losses. Others took risk-neutral approaches. This implied that they would only hedge if the cost of hedging was less than the expected benefit from such an activity.

Very little is known about the practices of foreign exchange risk management in Malaysian multinationals. As a consequence, this study relied largely on professional journals and speculation. Professional journal articles, in particular, suggest that the development of foreign exchange risk management in Malaysia is still in its infancy. The first initiative made by the government was to launch the Kuala Lumpur Commodity Exchange (KLCE) in 1980. KLCE was established for the purpose of trading commodity futures. KLCE traded crude palm oil futures, rubber futures, cocoa futures and crude palm kernel futures. Currently, the only active contract is the crude palm oil future. Then the Kuala Lumpur Options and Financial Futures Exchange (Kloffe) was established in 1995. Kloffe was formed for the purpose of offering equity-based derivatives contracts. Kloffe offered the Kuala Lumpur Stock Exchange composite index futures and options denominated in Malaysian dollars. In early 1996, the Malaysian Monetary Exchange (MME), which is a wholly-owned subsidiary of the KLCE was established for the purpose of trading financial futures. MME offered the world the first Malaysian dollar interest rate futures.

According to Kynge (*Financial Times,* 9 May 1997), in addition to these formal exchange markets, there is evidence of an over-the-counter market, where interest rate swaps are offered by local banks to their corporate clients. Moreover, by offering three-month Kuala Lumpur interbank offer rate (Klibor) contracts on the MME, banks are also quoting forward rate arrangements (FRAs) for their corporate clients.

It appears that prior to 1997 there were very few multinationals involved in hedging activities in order to avoid or minimise financial risks. According to Mohd Azwar Mahmud, General Manager of the Malaysian Monetary Exchange Bhd., local multinationals were very passive and reactive in managing their risks, including financial risks. Today there is a consensus that in light of the current volatile market, such techniques may, arguably, no longer be adequate, and that financial risk management capabilities may need to be enhanced. For instance, in the Corporate Treasurers' Colloquium in Kuala Lumpur, Mohd Azwar suggested that 'the rules of the game have changed and it is now about exposure to financial risk by choice and not by chance' (*New Straits Times,* 30 May 1998: 11). This view implies that multinationals should proactively manage their financial risks. They should identify their exposure and protect themselves through hedging activities. They may have to totally or partially hedge, depending on their resources and capabilities to self assume risks.

During the financial crisis, many of these multinationals have been deeply affected by foreign exchange and interest rate losses. For example, Tenaga National Bhd. (TNB), the national power utility, suffered foreign exchange losses of M$1.29 billion in 1997 (*Financial Times,* 8 November 1997). These losses increased to M$2.47 billion for the first six months after the crisis began. The Malaysian Airline System (MAS) suffered from similar losses of between M$300 million and M$400 million for the first six months of 1998 due to its foreign debt of about M$3.16 billion (*Financial Express,* 28 November 1998). Most of this debt (90 per cent) was in US dollars. TELEKOM also suffered from translation losses worth M$158 million in 1997 (*Agence France Presse,* 4 March 1999). Finally, Yeo Hiap Seng Bhd. suffered foreign exchange losses worth M$4.4 million for the financial year ending December 31, 1997 (*Bernama,* 5 March 1998). This evidence suggests that these multinationals could have benefited from more fully hedging their foreign exchange and interest rate exposure.

According to an MME official, the impact of the crisis could have been greatly minimised if they had been proactive in hedging their financial risks (*The Star,* 4 June 1998). A similar view was suggested by Rafidah Aziz, the International Trade and Industry Minister in a forum organised by the Federation of Malaysian Manufacturers. In light of the current situation, she suggested that there was a need for financial institutions to assist their corporate clients on sound financial management, including new ways of managing foreign exchange and interest rate risks (*New Straits Times,* 3 July 1998). Following this, MME has identified ten financial institutions, which have shown interest in developing derivatives expertise.

METHODOLOGY

Many of the studies on foreign exchange risk management employed questionnaire survey (e.g. Bodnar et al., 1998; Joseph and Hewins, 1997; Malindretos and Tsanacas, 1995). Saunders et al. (1997) claimed that there are three main advantages of questionnaires. Firstly, they are highly economical since a large amount of data can be collected from a big population. Secondly, they can be standardised, which makes comparisons easy. Finally, they are easy for most people to understand.

For the purpose of this study only multinationals listed under the Bursa Malaysia (previously known as Kuala Lumpur Stock Exchange) were selected. These multinationals were chosen for two main reasons. Firstly, these companies are involved in international transactions and they have subsidiaries overseas or have joint ventures with overseas companies. Secondly, some of their financial information is made available to the public. Therefore they are likely to be exposed to the currency risk. A total of ninety multinationals were identified out of a population of 113. In order to increase response rate, corporate treasurers or finance directors of these multinationals were identified by names. The questionnaires were then sent direct to the named corporate treasurers or finance directors in June 2000. A reminder was sent after three weeks in the case of multinationals who had not responded. Out of the ninety multinationals, fifty-four responded to this survey. This is equivalent to a 61 per cent response rate.

A comparison is made in three different time periods, namely before, during and after the financial crisis (that is, after September 1998). The questionnaire was divided into two key areas. The aim of the first section was to determine the objectives for multinationals' involvement in the foreign exchange risk management. The second section addressed specific issues on risk management processes such as centralisation and the frequent reporting of risk management activities. Some of the questions asked in the questionnaire, such as on the foreign exchange risk management objectives, relied on a five-point Likert scale. The reason for adopting this scale was to give some degree of flexibility of choice to respondents to reflect the intensity of the feeling of their views.

The high response rate is probably due to the participant interest in the study. The subject is very timely following heavy losses suffered by these multinationals during the crisis period. This is supported by Vaus (1993) who argued that a combination of factors such as the nature of topic and sample, the length of questionnaire and other factors like the timing of the survey influenced the response rate.

The majority (80 per cent) of those who did not respond did so due to work pressure, especially preparing year-end reports (Table 3.1). A

Table 3.1: Reasons for Non-Response

Reasons	**Percentage (%)**	
Busy / work pressure	80	(28)*
Did not want to participate	14.3	(5)
Company policy	5.7	(2)

* Number in parentheses represents the number of companies who responded.

total of 14.3 per cent did not want to participate in the survey while another 5.7 per cent did not respond due to company policy.

RESULTS AND DISCUSSIONS

Foreign Exchange Risk Management Objectives

The first foreign exchange risk management objectives related to minimising losses on operational cash flows due to foreign exchange volatility. Obviously all firms would like to achieve this objective in order to avoid financial difficulty and to allow further expansion. Over all three periods, this objective is ranked top by the respondents of this survey as presented in Table 3.2. However, multinationals attributed the most importance to this objective during the crisis, lesser importance after the crisis and the least importance before the crisis. This is consistent with the findings of Joseph and Hewins (1997), who noted that minimising losses in cash flows is the prime goal of most multinational companies.

Minimising a firm's cash flow fluctuation due to foreign exchange volatility has also been cited as a goal of exchange rate risk management. Stable, continuous net cash flow can reduce borrowing costs if multinationals need external funds for future investments. Again, in the crisis period, firms are more concerned about cash flow fluctuations, probably due to unstable financial markets. Over all three periods, the objective is ranked second (Table 3.2). Again, this result is consistent with Joseph and Hewins' (1997) study, which also ranks this goal as important, but less so than that of avoiding operational cash flow losses.

The third foreign exchange risk management objective relates to minimising shareholders' losses. This is analogous with the managers' goal of increasing shareholders' wealth. The increased importance of this objective is probably due to an increasing concern with the behaviour of shareholders since the crisis period. Over all three periods, the objective is ranked third out of six (Table 3.2).

Minimising losses on consolidated balance sheets could be associated with managing translation exposure. According to Belk and Glaum (1990), managing translation exposure has become increasingly popular among UK multinationals. This objective is ranked fourth for the three time periods. Thus, multinationals attributed lesser importance to this objective as compared to other objectives. This could have been due to the fact that translation exposure does not involve direct cash flows. Rather, it arises during the conversion of the subsidiary's balance sheet into the parent company's consolidated balance sheet.

The next objective is related to minimising business uncertainty. Since risk management is believed to reduce cash flow uncertainty, firms often become involved in risk management in order to help them achieve future corporate planning objectives. This objective is given the least attention by the multinationals surveyed. The objective is ranked second to last before and after the crisis, and at the bottom during the crisis.

The last objective is to minimise foreign exchange risk to a level at which management felt comfortable. It is typical for managers to seek to mitigate risk and to avoid unexpected losses. The objective is ranked at the bottom before and after the crisis, and second to last during the crisis (Table 3.2). Thus, these results imply that multinationals did not consider this objective to be particularly important. In fact, one corporate treasurer commented that his company did not even think of this as an objective. This implies that some multinationals may manage currency risk for reasons other than to make the management feel comfortable with risk. This finding contradicts the study of Joseph and Hewins (1997), which ranked this objective among the top four motives for hedging.

Table 3.2: Mean and Ranking of Foreign Exchange Risk Management Objectives

	Before	During	Current
Minimising losses on operational cash flow	3.59 (1)	4.62 (1)	4.09 (1)
Minimising firm's cash flow fluctuation	3.29 (2)	4.41 (2)	3.88 (2)
Minimising losses on shareholders' wealth	3.26 (3)	3.91 (3)	3.82 (3)
Minimising losses on consolidated balance sheet	3.24 (4)	3.56 (4)	3.50 (4)
Minimising uncertainty and facilitate decision making	3.21 (5)	3.50 (6)	3.41 (5)
Minimising foreign exchange risk to level management feel	2.91 (6)	3.53 (5)	3.29 (6)

Note 1: The results are based on five-point progressive Likert scale (1 is the least important; 5 is the most important).
Note 2: Number in parentheses represents the rank.

Types of Exposure Managed

The analyses indicate that Malaysian multinationals focused on managing short-term transaction exposure rather than other exposures (Table 3.3). This may be attributable to the fact that transaction exposure directly influences multinationals' cash flows. This is consistent with the arguments made by Madura (2000) that the multinationals considered translation exposure as less significant because it affected reported profits and balance sheet values and it did not involve cash gains or losses. As for economic exposure, the multinationals made even less effort to man-

Table 3.3: Types of Currency Exposure Managed by the Multinationals Friedman Test

Before Crisis	Mean Rank	Chi-square 33.916
Short-term transaction	3.22	
Long-term transaction	2.35	
Translation	2.37	Sig. .000
Economic	2.06	
During Crisis	Mean Rank	Chi-square 48.565
Short-term transaction	3.49	
Long-term transaction	2.40	
Translation	2.37	Sig. .000
Economic	1.75	
Current Period	Mean Rank	Chi-square 38.229
Short-term transaction	3.24	
Long-term transaction	2.51	
Translation	2.41	Sig. .000
Economic	1.84	

Note 1: The results of the Friedman test indicate that there are significant differences in the types of currency exposure managed ($p<0.01$)

age this. Economic exposure includes direct economic exposure (future receipts and payment in foreign currency) and indirect economic exposure (long-term risks arising from adverse economic developments in the country). Both types involve future unknown cash flows, which are very difficult to measure.

Centralisation / Decentralisation

Table 3.4 indicates that 91.2 per cent of the multinationals had decided to centralise their foreign exchange risk management. This is consistent with a survey conducted by Greenwich Treasury Advisors, which found that many of the world's largest corporations have centralised the management of foreign exchange risk with their Parent Treasury (Wallace, 1998). There are several good reasons for such a choice. As argued by Buckley (1996), some possible reasons for centralisation are as follows: a) to ensure a consistent policy through the firm; b) to allow the parent firm to match several currencies' exposures; c) to be more cost effective by getting a better rate from bankers; and d) to ensure a group of experts are normally available at the parent firm to manage risk.

Table 3.4: Centralised/Decentralised Foreign Exchange Risk Management (in percentage)

Centralised	91.2
Decentralised	8.8

As presented in Table 3.4, some multinationals prefer decentralisation of currency risk management. As argued by Dolde (1993), there is a trade-off between the centralising and decentralising of foreign exchange risk management. If a multinational decides to centralise its foreign exchange risk management, it may preserve economies of scale. Conversely, a multinational may decide to decentralise to provide incentives for local managers to manage their currency exposures. Furthermore, it is extremely complicated to identify all the company's exposures, especially for a large conglomerate. If there are no close ties between the parent and subsidiary/ies, it is hard to identify all currencies' exposures. In such a case, over time more autonomy can be given to the subsidiary/ies in order to make decisions and it may be more efficient for each subsidiary to deal with its own currency exposures.

Policy and Control

The management of foreign exchange risk by the multinationals studied here is still at the 'infant stage'. On the whole, it appears that most firms have kept the management of foreign exchange risk informal. Most of them do not have a proper document policy to be

Table 3.5: Documentation of Foreign Exchange Risk Management (in percentage)

No	79.4
Yes	20.6

shared by all subordinates and at all levels in the multinational. Only about 21 per cent of the multinationals stated that they had a well-documented policy (Table 3.5) and the majority of these are large multinationals. This result contrasts with the Wharton survey of 1998 (Bodnar et al.), in which about 79 per cent of US companies reported that they had a document policy for foreign exchange risk management.

In the case of Malaysia, more work may have to be done in order to emphasise the importance of such documents to the management of foreign exchange risk. However, with the experience of the recent financial crisis, it may not be too difficult to convince boards of directors and chief executive officers of the importance of risk management and the need to document effectively clear policies.

Another aspect of risk management relates to control mechanisms. Multinationals who use financial instruments to manage foreign exchange risk need to have some control on derivatives trading. As argued by Smith and Bahrman (1997), the key to success of an effective foreign risk management programme is the company's ability to monitor, report, and categorise duties in its daily operation. In other words, the users of financial instruments need to have proper controls and guidelines. Therefore, corporate treasurers who are involved in derivative dealings must be monitored to avoid the mismanagement of such transactions. They must make regular

Table 3.6: Frequency of Reporting (in percentage)

	Before Crisis	During Crisis	After the crisis
Monthly	9.7	48.4	51.6
Quarterly	12.9	6.5	3.2
Annually	32.3	22.6	22.6
As requested	38.7	12.9	12.9

reports to the board of directors on the companies' position in financial instruments. In relation to these points, a question is asked in the survey regarding the reporting frequency required by multinationals. Before the crisis, a large number of corporate treasurers (38.7 per cent) made reports on currency derivative activities when requested by the board of directors with 32.3 per cent reporting annually, 12.9 per cent quarterly and only 9.7 per cent monthly (Table 3.6).

However, during the crisis this scenario changed, with reports being made more frequently. About 48 per cent of respondents made monthly reports and only 22.6 per cent made annual reports to the board of directors. This was probably due to the greater vogue of financial risk management at that time and the need to manage and control derivative transactions because of the unpredictability and volatility of the currency exchange rate. Similarly, after the crisis period, about 52 per cent make monthly reports on the derivatives trading to the board of directors and only 23 per cent of them report annually.

CONCLUSION

This study indicates that multinationals are involved in foreign exchange risk management primarily because they sought to minimise operational overall cash flows which are affected by currency volatility. In other words, the multinationals showed a strong preference for stable net cash flow (Oldfield and Santomero, 1997). Overall analysis of objectives fall in line with Joseph and Hewins' (1997) study of UK multinationals which found that multinationals attempted to minimize operational and overall cash flows and these two goals are the top two motives for corporate hedging.

Another finding is that the majority of multinationals centralised their risk management activities and at the same time imposed greater control by frequent reporting on derivative activities. It is likely that huge financial losses related to derivative trading in the past led to top management being extra cautious. Interesting findings also emerged from the examination of the role of foreign exchange risk management. It appears that economic events related to Malaysian financial markets did influence the involvement in foreign exchange risk management. For instance in September 1998 the government imposed a new exchange rate policy by pegging the Malaysian Ringgit (MYR) to the United States Dollar (USD). As a result, the number of multinationals who attributed the greatest priority to foreign exchange risk declined slightly, but is still considerably higher than before the crisis.

The perceptual changes that arose from the crisis are also reflected in the foreign exchange risk management practices. For example, before the crisis short-term transaction exposure was less managed. However, during and after the crisis, short-term transaction exposure was increasingly managed by these multinationals.

With the foreign exchange markets being still volatile, it may be advisable that multinationals become proactive in managing currency risk. With the new challenges brought by globalisation Malaysian multinationals may have to change their methods and approaches to foreign exchange risk management. Thus, it may be advisable that multinationals incorporate foreign exchange risk management fully into their corporate strategic planning. Hence, this study suggests increasing the role of foreign exchange risk management in the Malaysia corporate scene.

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