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A RESEARCH ON MEASURING THE EXCHANGE RISK IN STRATEGICAL FINANCIAL MANAGEMENT APPLIED IN COMPANIES

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ABSTRACT

The strategical financial management in companies could be defined as assuring the required reserves to continue the company's existence under favorable conditions, also protecting and efficient use of these reserves; applying cash flow in the correct way; helping to occur the policies which the companies will follow as a result of being evaluated each internal and external developments. Within this scope of assessment, there is need to analyze the problems of businesses at the stages of 'measuring the exchange risk in strategical financial management' on two principal axes as internal and external dynamics. The purpose of this study which is actualized to measure the exchange risk in strategical financial management is to reveal the effect of the exchange risk of the companies about financial management and how the companies are affected by the negative developments at the end of measuring the exchange risk correctly. After being described the terms that create the content of the study, the relations between these terms and literature are tried to be supported by the primary studies to achieve this purpose. The hypothesizes of the research are started to be improved by the generating the theoretic frame. First of all, research was actualized by the survey for this purpose to reveal how important the frame of strategical financial management and the accuracy of measuring the exchange risk in strategical financial management are. The same data was tested by the hypothesizes beside being evaluated the obtained data with the help of statistical analysis. It is observed by the result of analysis that the strategical financial management is significant for the financial structures of the companies and the existence a meaningful relationship between the correct measuring of exchange risk and right financial decisions.

Keywords: Financial management, strategical financial management, exchange risk, measuring the exchange risk, financial decisions

JEL Codes: G2; G32

1. INTRODUCTION

The foreign exchange risk can be defined economically as the amount of profit or loss of a value of an investment or a transaction abroad as a result of the fluctuation in the exchange rate (Alex, 1982). The period of free circulation of services, money, and products by exceeding the limits allied with the globalization. Political, economic and cultural changes happened in countries, dip, and spurts of the stock market or the war environment especially in this period cause peripeteia in sort of money used for international trade by creating a domino effect. The increase and decrease in value affect the international commerce and investments. For instance, an increase in Peso causes to come dear the goods of Mexico for Turkish importers, and this condition decreases the demand for Mexico products as well. According to Mexican importers, low-value Turkish Lira makes the Turkish products more attractive and increase the importation of goods of Turkish. (Berg, 2004)

The changes in foreign exchange rates cause fluctuations in balances of export and import. Under these circumstances, the governments need to determine their positions by the correct decisions. The companies must measure the risk factors by minimizing the exchange risk and take strategical financial decisions to be out of a tight corner. Not to be affected or completely escaping from the exchange risk are entirely impossible. The businesses should study on exchange risk measurement instruments for minimizing this risk level. It is the evidence that these studies vary from country to country. Changes happened in foreign monies against the sort of money of the country where the primary business is

established excited the attention of managers and scientist to analyze the features of the accounting records of transactions with foreign monies and the effect of the exchange rate risk (Pamukçu, 1984).

2. FINANCIAL MANAGEMENT

Being determined the target-driven investments of companies for in the short, middle and the long term and the process of being invested these reserves to proper assets to increase the amount and quality of goods and services produced can be called as the financial management. Any economic, political and cultural decay happened anywhere in the world spread firstly into countries in the region and whole world in a jiff (Şener, 2009)

Financial management is also called as a discipline provides the distribution of limited sources between the department of the company accurately and manage the process at present when the globalization is intense, and the competition environment incredibly pushes the businesses.

The goals of the financial management mostly parallels the goals of the company can be mentioned as below (Özdemir, 1997)

- The selection of the assets required for the investments of the company,
- Determining the total amount of reserve for these assets,
- Deciding on how and from which sources these reserves will be provided.

The companies run for the 'Strategical Financial Management' to develop new approaches and determine new methods in the field of financial management by changing paradigms for achieving these goals.

The finance managers are in the position of evaluating the economic conditions of the country and estimate the developments. The interest rate in the financial management is the leading factor needs to be considered for both investment and financing decisions. Accordingly, the finance director should understand and interpret the effect of interest, domestic income, inflation, tax and monetary policies on the investments and attainability of the credit. The finance director takes advantage of microeconomics for short termed investment decisions such as the management of cash, stock and receivables and the long termed investment decisions as well (Aydın, Basar, Coşkun, 2006).

2.1. Strategical Financial Management

The process of financial planning starts with the long termed (strategical) financial plans. The strategical plans act as a guide to prepare the short termed schedule and the budget. The short termed plans and the budgets are the implementations of the long termed strategical purposes of the business (Yükçü et al. 1999)

Strategical financial management composes of the economic activities take the long run and the results of these activities. These plans mostly involve a process starts with being specified the purposes of the business. It is mandatory to settle the strategies, carry into action and even improve new strategical approaches after the first stage. The crucial fact remarkable is being the strategical plans and decisions targeted achievable and in accord with the purposes of the business. The companies need to see the financial requirements for the future before a few years for providing secular fund by large amounts and non-frequent time intervals. And so, the estimation of the long-run financing requirement has a place in the companies (Akgüç, 2010).

2.2. Exchange Risk

The risk as a financial concept is the status of being a future of a yield up to the alternative situations and resulted in at least one of these situations positive or negative return (Usta, 2008). The exchange risk is also a status to be caused a negative changing in cash flows of person or institution remains open for the currency impact by the unexpected developments happened in fx rate. In other words, they are the possible losses occur in the financial structure of the companies due to the fluctuations in exchange rates without control of the corporations and conversion the foreign currency to the national currency (Kadioğlu, 2003). The possibility of undergoing a change of the sort of national currency versus foreign currencies cause to occur the exchange risk. The companies face with the exchange risk in trading with foreign currency.

The exchange risk is a risk resultant in volatilities in the value of foreign currency. This volatility is based on inflation occurred by the disparity in the balance of payments of the national economy. The investors expect to earn at least as much as the increment in the rate of inflation when using their money; this is because the savings of the investor protect the purchasing power. For example, the position of a bank in a foreign money is the open interest (position). The foreign money accountabilities of that bank in a particular sort of money hang its assets up. In this circumstance, if the foreign money mentioned increases in value faces with a loss due to the open interest; or the bank yields because of this open rate if this foreign money decreases in value. (Mandacı, 2003).

Decision makers determine the strategies of the company benefit from previous experiences by empirically acting when deciding on the exchange risks. The more they move away from the movement of thought of rationalist and push aside the rationalism the more risk level of the decisions increase. The information obtained must be correctly interpreted and the decisions must be taken in this direction for holding the harmless due to the changing in uncontrollable fields. The systematic risks are evaluated as the risks effect all instruments in an economy and cannot be avoided by diversification while the nonsystematic ones are evaluated as the risks arising from the asset itself and controllable by diversification of the investor. Since the existence of the systematic risk affect all stocks and bonds, the diversification in portfolio does not reduce the risk (Ross, Westerfield, Jordan, 2001)

2.3. Measuring The Exchange Risk

About the measuring of the exchange risks, companies firstly should guess the movements of the exchange rate. The effects create the exchange risk are the real changes occurred in exchange rates. 'Real quotations are obtained by adjusting the nominal exchanges based on internal and external inflation difference; or shown with the mathematical symbols as follows' (Seyidođlu,1994).

$$E_R = E \frac{(1 + p_f)}{(1 + p)}$$

In regard to the formula, E_R and E represent the amount of national currency per foreign monetary unit, respectively the real and nominal exchange. p_f and p relatively represent domestic and international interest rates. It needs to be analyzed the results of the decisions and the applications to determine other methods will be used for measuring the exchange risks. For this purpose, the methods applied in companies should be recorded, and the positions must be changed by estimating the market reactions.

2.4. The Position of Measuring Exchange Risk in Financial Decisions

All financial decisions have a risk, because the companies may face with situations in which they cannot fulfill their obligations due to their structures. The companies can use different investment instruments to spread the risks happened in next financial steps and reduce the financial risks in measuring the exchange risks. At present, the risk management has a strategical importance for each actor in business in the finance sector. Whether stem from systematic or nonsystematic reasons, being obtained the real return at a level different from expected constitutes the risk of the investor undertook (Konuralp, 2005).

In this regard the directors should elude the traditional management models and benefit from more scientific and objective data about the issue of measuring the exchange risks. Besides the classical exchange risk methods, being used the foreign money via international activities by the companies creates a new responsibility in terms of the managers for achieving the primary economic goal. Especially making the profit in various foreign currencies creates a necessity to develop new management techniques. The changes happened in values of foreign monies versus the money of the country in which the business is established caused to start the studies to review the exchange risk occurred by these changes. (Pamukçu, 1984).

3. THEORETIC FRAMEWORK AND HYPOTHESES OF THE RESEARCH

Variables of Research;

- Dependent Variable: Exchange Risk
- Independent Variable: Strategical Financial Management
- Mediator Variable: Perceiving the Exchange Risk

Hypotheses;

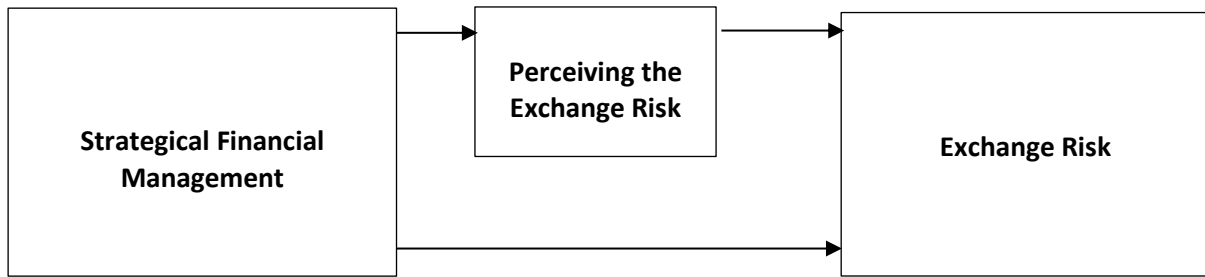
H₁: There is a significant and positive relation between strategical financial management and measuring of the exchange risk.

H₂: There is an important and positive relation between strategical financial management and the financial structures of the businesses.

H₃: The financial decisions of businesses that can accurately measure risk are correct.

H₄: There is a significant mediator variable role of perceiving the exchange risk between strategical financial management and the exchange risk.

Figure 1: Theoretic Framework of the Research



3.1. Purpose of the Research

It is aimed to analyze the consistency between the reactions and decisions of the companies and measure the exchange risk in the strategical financial management applied in enterprises.

3.2. Sampling of the Research

While being created the sampling of the research, it was benefited from the information obtained by the companies in business in organized industrial zones in İstanbul. Our survey was sent to 3425 companies and received come back from 1486 of them (the comeback ratio for the studies is 43%).

3.3. Method

The quantitative research technique, ‘Survey’ method as the data collection tool was used to collect the data. The questionnaire forms generated were sent to the companies via e-mail method. Our survey consists of 68 questions and five points Likert scale is used to measure the variables. Google Forms prepared the survey on Google Drive.

4. ANALYSIS OF THE DATA OBTAINED IN RESEARCH

The data collected from the surveys of our results was recorded in the electronic environment, and the register number was created as well. Then, these data generated were analyzed by SPSS 22.0 packaged software. Cronbach's Alpha and Chi-Square tests were used in analyses; we determined the frequency, percentage values, and the graphic data.

Table 1: Cronbach's Alpha Test

Cronbach's Alpha	N of Items
,947	17

The reliability of the questions prepared for measuring the exchange risk in strategical financial management in companies is determined by using Cronbach's Alpha test. As is seen in Table 1, the number, 0,947 based on the measurement criteria (a ≥ 0,9= Perfect) of Cronbach's Alpha test is computed as ‘Perfect.’

Table 2: Chi-Square Tests-Do You Presume the Change of Movements of Exchange Rate? Which of the following item defines the attitude of your company against the exchange risk?

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	35,921(a)	2	,000
Likelihood Ratio	51,153	2	,000
Linear-by-Linear Association	,030	1	,862
N of Valid Cases	1486		

a 0 cells (,0%) have expected count less than 5. The minimum expected count is 16,36.

In Table 2; Determined that the significance value is less than 0,000<0,005 when being analyzed if there is a relation between the variables or not in the distribution of propositions called ‘do you presume the change of movements of exchange rate?’ and ‘which of the following item defines the attitude of your company against the exchange risk?’. In this

case, the hypothesis 'H1: There is a significant and positive relation between strategic financial management and measuring of the exchange risk' is accepted.

Table 3: Do You Presume the Change of Movements of Exchange Rate?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	1094	73,6	73,6	73,6
	No	392	26,4	26,4	100,0
Total		1486	100,0	100,0	

As is seen in Table 3, the companies mostly show a tendency to presume the change of movements of the exchange rate (73,6%). The companies follow closely these changes which are crucial for themselves.

Table 4: Which of the following item defines the attitude of your company against the exchange risk?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	The exchange risk cannot be controlled. Risk must not be loaded..	62	4,2	4,2	4,2
	The exchange risk can be controlled by being loaded at a certain level	514	34,6	34,6	38,8
	The exchange risk can be controlled anticipatingly	910	61,2	61,2	100,0
	Total	1486	100,0	100,0	

According to Table 4, companies think that the exchange risk is controllable (95,8%). The dominating thoughts among the companies are; 'the exchange risk can be controlled by being loaded at a certain level (34,6%)' and 'the exchange risk can be monitored anticipatingly (61,2%)'. The rate of participants who argues that 'the exchange risk cannot be controlled, so risk must not be loaded' is too low (%4,2%).

Graphic 1: Which of the following item defines the attitude of your company against the exchange risk?

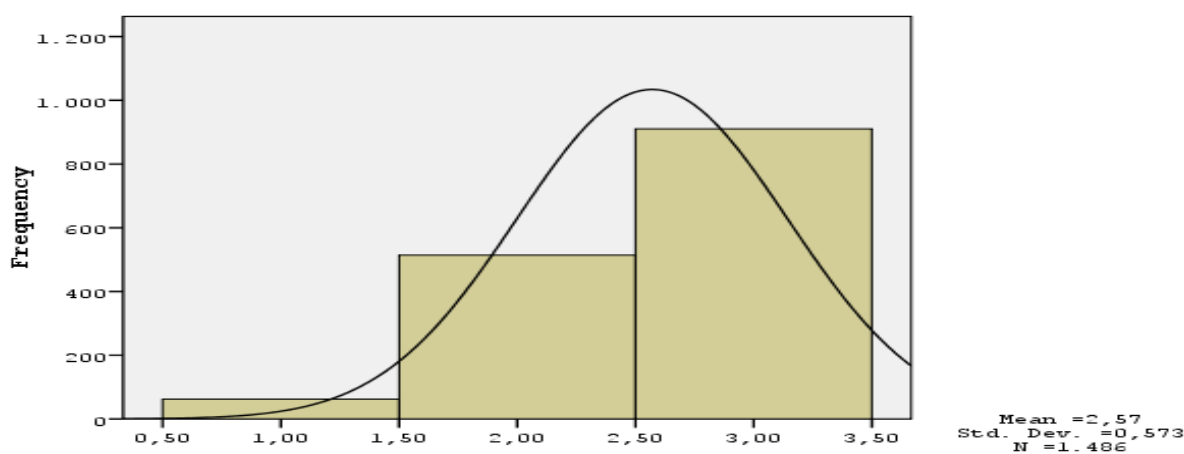


Table 5: Chi-Square Tests- Do You Think That The Financial Structure of Your Company is Strong?* Does your business carry out a long-term plan or program, such as the long-term value of an enterprise concerning exchange rate movements, competitiveness, determination of the present value of future cash flows?

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	9,045(b)	1	,003		
Continuity Correction(a)	8,401	1	,004		
Likelihood Ratio	8,217	1	,004		
Fisher's Exact Test				,004	,003
Linear-by-Linear Association	9,039	1	,003		

N of Valid Cases 1486

a Computed only for a 2x2 table

b 0 cells (.0%) have expected count less than 5. The minimum expected count is 28,23.

In Table 5; Determined that the significance value is less than $0,003 < 0,005$ when being analyzed if there is a relation between the variables or not in the distribution of propositions called 'do you think that the financial structure of your company is strong?' and 'does your business carry out a long-term plan or program, such as the long-term value of an enterprise in terms of exchange rate movements, competitiveness, determination of the present value of future cash flows?'. In this case, the hypothesis 'H2: There is a significant and positive relation between strategical financial management and the financial structures of the businesses,' is accepted.

Table 6: Do You Think That The Financial Structure of Your Company is Strong?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	1290	86,8	86,8	86,8
	No	196	13,2	13,2	100,0
Total		1486	100,0	100,0	

According to Table 6, 1290 of the companies mentioned that their financial structure is strong (86,8%). The statement of being the economic structure stable reflects the confidence of the managers for their decisions regarding the strategical financial management.

Graphic 2: Do you think that the financial structure of your company is strong?

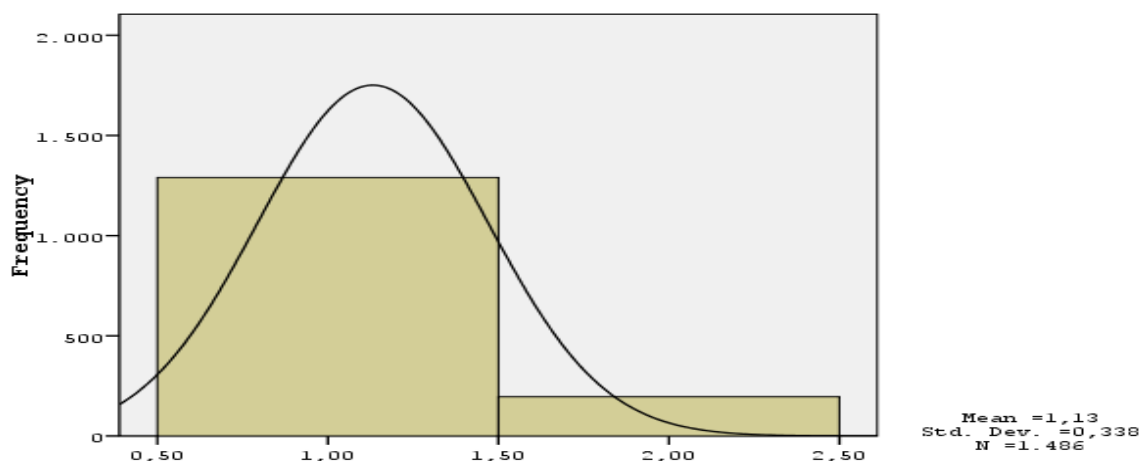


Table 7: Does your business carry out a long-term plan or program, such as the long-term value of an enterprise in terms of exchange rate movements, competitiveness, determination of the present value of future cash flows?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	1272	85,6	85,6	85,6
	No	214	14,4	14,4	100,0
Total		1486	100,0	100,0	

According to Table 7, the decision maker managers on the strategical finance think that the company carries out a long-term plan or program, such as the long-term value of an enterprise in terms of exchange rate movements, competitiveness, determination of the present value of future cash flows. This result means that 1272 companies have long termed strategical plans and also apply them (85,6%).

Table 8: Chi-Square Tests-How often the Future and Forward transactions are used in your business? * How much do you agree with the judgment that the 'strategical finance' methods are correct in the companies which measure the exchange risk correctly?

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	12,762(a)	6	,047
Likelihood Ratio	12,901	6	,045
Linear-by-Linear Association	4,480	1	,034
N of Valid Cases	1486		

a 3 cells (25,0%) have expected count less than 5. The minimum expected count is ,08.

In Table 8; Determined that the significance value is less than $0,047 < 0,005$ when being analyzed if there is a relation between the variables or not in the distribution of propositions called 'how often the Future and Forward transactions are used in your company?' and 'how much do you agree with the judgement that the 'strategical finance' methods are correct in the companies which measure the exchange risk correctly?'. In this case, the hypothesis 'H3: The financial decisions of businesses that can accurately measure risk are correct.' is accepted.

Table 9: How often the Future and Forward transactions are used in your company?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Continuos	1201	80,8	80,8	80,8
	Occasionally	270	18,2	18,2	99,0
	Never	15	1,0	1,0	100,0
Total		1486	100,0	100,0	

According to Table 9, 1201 of companies continuously use the Future and Forward transactions to be preserved from price uncertainty for options (80,0%). The ratio of businesses that never use these operations is 1,0%.

Graphic 3: How often the Future and Forward transactions are used in your company?

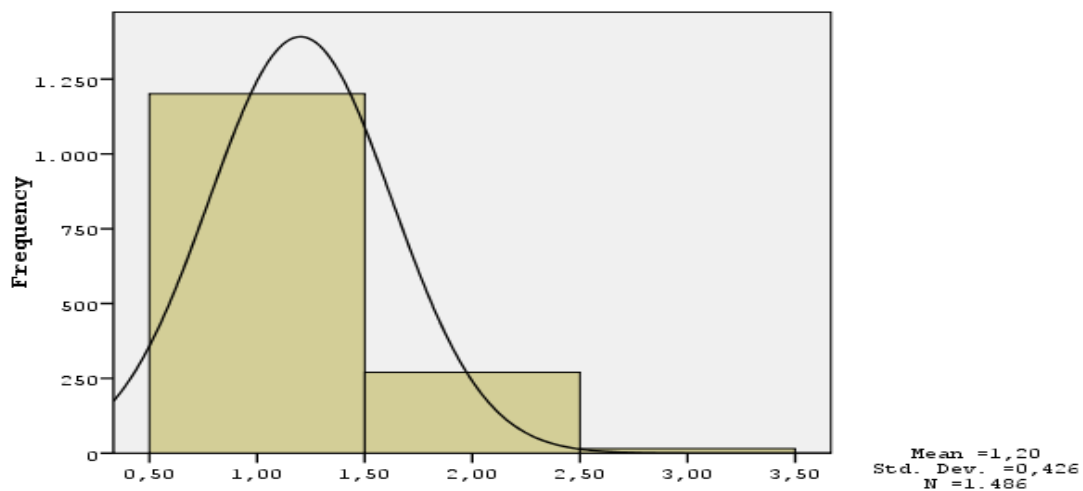


Table 10: Chi-Square Tests-Which of the following title defines the person charged with to follow the movements of the exchange rate and the financial decisions? * How much do you agree with the judgment that the 'strategical finance' methods are correct in the companies which measure the exchange risk correctly? *

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10,857(a)	3	,013
Likelihood Ratio	10,585	3	,014
Linear-by-Linear Association	4,126	1	,042
N of Valid Cases	1486		

a. 2 cells (25,0%) have expected count less than 5. The minimum expected count is 1,14.

In Table 10; Determined that the significance value is less than $0,013 < 0,005$ when being analyzed if there is a relation between the variables or not in the distribution of propositions called 'which of the following title defines the person charged with to follow the movements of the exchange rate and the financial decisions?' and 'how much do you agree with the judgment that the 'strategical finance' methods are correct in the companies which measure the exchange risk correctly?'. In this case, the hypothesis 'H4: There is a significant mediator variable role of perceiving the exchange risk between strategical financial management and the exchange risk' is accepted.

Table 11: Which of the following title defines the person charged with to follow the movements of the exchange rate and the financial decisions?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Business Manager/Owner	1275	85,8	85,8	85,8
Finance Manager	211	14,2	14,2	100,0
Total	1486	100,0	100,0	

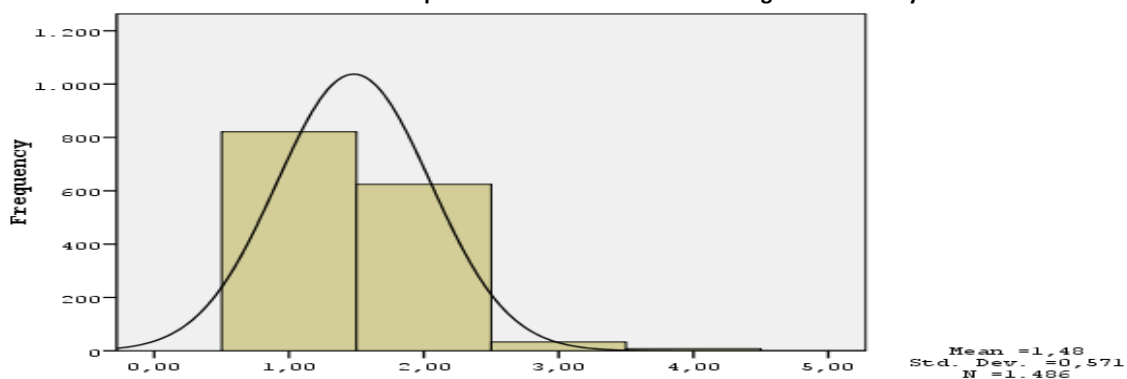
According to Table 11, 'Business Manager/Business Owner' takes the financial decisions. Due to the business owners get the title of business manager for exchange rate decisions, it is seen in 1275 companies that these managers have the final word (85,8%).

Table 12: How much do you agree with the judgment that the 'strategical finance' methods are correct in the companies which measure the exchange risk correctly?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Absolutely Agree	821	55,2	55,2	55,2
Agree	624	42,0	42,0	97,2
I'm on the fence	33	2,2	2,2	99,5
Disagree	8	,5	,5	100,0
Total	1486	100,0	100,0	

It is thought based on Table 12 that the organizations can measure the exchange risk properly are successful. This thought is confirmed by the decisions taken in line with the fact of 'strategical financial management (97,2%)'.

Graphic 4: How much do you agree with the judgment that the 'strategical finance' methods are correct in the companies which measure the exchange risk correctly?



5. CONCLUSION

It is analyzed in this research that the decisions, precautions, and applications of decision maker organs about measuring the exchange risks and the reactions of them to the statements of the market which occurred as a result of the internal-external factors. The answers of participatory companies are tested, and the hypotheses on this research are accepted as well. Following results are obtained when reviewing the subject of exchange risk in strategical financial management. Observed in participatory companies that the person who takes decisions by following the commercial developments has the title of 'business manager/owner.'

These companies mentioned that their commercial structures are strong. Moreover, it is thought based on this research that strategical financial management is successful if the company can measure the exchange risk correctly. The participatory companies stated that the exchange risk is controllable and takable at the specified level. There are especially two kinds of financial derivative instruments against to the exchange risk. Two of the most frequently used techniques are 'Future' and 'Forward.' Companies continuously use these transactions to be preserved from the exchange risk. The uncertainties in exchange rates are accepted as the internal factor of being the exposed to exchange risks; being affected by the political and economic developments in foreign countries is accepted as the external factor. The companies that are established with national capital use US dollars and Euro within the day frequently. Starting from this of view, we can easily say that the dependency of companies to external factors in the financial transactions increased in today when the globalization gathered speed, and the companies frequently use the exchange transactions. It is noticed that the negative circumstances happen in currency markets create an adverse effect on quoting the export sales. The receiving and payments are also affected by these adverse conditions due to the movements of an exchange rate. Some companies mentioned that they would establish a new department in the company to manage the exchange risk by employing new personals (45,4%). There are also other companies stated that they would meet with the banks (or other financial institutions) on this issue. It is seen in analyses conducted that the strategical financial management is significant for the financial structures of the companies and there is a significant relation between the measurement of the exchange risk and correct decisions. These data reflect the essential behavior characteristics of the markets. Mainly observed that the companies that measure the exchange risk correctly and take necessary precautions move freely in the financial area in countries have import-based economies.

6. LIMITEDNESS OF THE RESEARCH

This study is limited with perceptions, and the precautions of the managers take the financial decisions about 'Measuring the Exchange Risk in Strategical Financial Management' in organized industrial zones in İstanbul. Within this scope, the study conducted should be in a different size and applied in other sectors to generalize for the companies out of İstanbul. Moreover, due to this research just involves the decision maker managers on financial issues, there is also limitedness belongs to 'people.' That's why the data obtained reflect the experiences, abilities, attitudes and perception levels of the individuals in sampling group. It can be thought that the studies in a bigger universe bring more important and significant findings due to increasing the 'sampling' level.

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